# Self Study Report For Accreditation 2021

# Submitted to National Agriculture Education Accreditation Board Indian Council of Agriculture Research NEW DELHI



Sri Karan Narendra Agriculture University, Jobner Jaipur, 303329 (Rajasthan)

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#### Self Study Report Accreditation – SKNAU 2021

Sri Karan Narendra Agriculture University, Johner

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#### **FOREWORD**

Agriculture sector being the mainstream of Indian economy, contributes 19.9 per cent of National Gross Domestic Product (2020). About half of the Indian population is significantly dependent on agriculture and its allied activities for their livelihood. With the increase in population, declining land, water and biodiversity resources and the intensifying volatilities of climate change and markets by the year 2030, only 59 per cent of India's total demand for food and agri products will be met. Thus, to meet the challenge to produce more from less, a comprehensive, vibrant and quality agricultural education system, in congruence with a dynamic research and technology development setting, is fundamental to the national progress and prosperity. The SKNAU is striving hard to meet out the challenges of improvement in farm productivity, economic empowerment and global competitiveness though teaching, research and extension mechanism. Established in 2013 SKNAU assumes a pivotal place in agriculture on account of producing quality human resource through 9 constituent colleges and contributing in the technology driven endeavour towards agricultural development and improving the economic status of the farmers of the State of Rajasthan. The university is involved in generation of agro-technologies at its research stations and their effective dissemination to end users is being carried out through the ATMQIC and 7 KVKS spread in 8 districts of the State of Rajasthan.

The university and its 2 constituent colleges got accreditated by the ICAR exsit upto march, 2021. In order to further extend the accreditation period, the present Self Study Report has been prepared as per the guidelines by ICAR-NAEAB, which is a roadmap for progress of SKNAU and ensures momentum. The Self Study Report in its desired format is the manifestation of sincere commitment and unremitting endeavours of Dr.Sunita Gupta, Director, Prioritization, Monitoring & Evaluation and her team for their abiding and unaswering efforts in this venture for bringing out the Self Study Report 2016-2020 in time. All Deans, Directors, Incharges and the members of the committee alongwith contributors also need appreciation for their sincere efforts for this Self Study Report of the university.

Jobner

(J. S. Sandhu)

Vice-Chancellor



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Director



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#### **PREFACE**

As a part of the progressive attitude and continuous strive for excellence, Sri Karan Narendra Agriculture University, Jobner is playing pivotal role in ushering Green Revolution and transforming the region of the state rich in cereals and oilseeds. The productivity and production of crops like wheat, mustard, Guar, chickpea, bajra, spices etc. have been immensely enhanced. The arid and semi arid region of the state is currently passing through a difficult period. The declining underground water table, deteriorating soil health and groundwater quality, changing climate, environmental degradation, diminishing farm size, increasing cost of agri inputs and marketing constraints have become major problems which need to be taken care of. We have to focus more in the future to develop technologies that can focus on resolving these problems. We need to periodically brainstorm and develop well trained human resource having national and international exposure to better understand the changing needs of agriculture faces the challenges and thereby update its strategy for better output through agricultural education, research and extension activities.

The Self Study Report for Accreditation of SKNAU, Jobner has been prepared as per the guidelines issued by ICAR-NAEAB, that give the holistic information about the activities and achievements of the university in the areas of teaching, research and extension in the last five years. It includes information about university governance, infrastructure, and amenities available for students & staff as well as academic records of faculty. It also encompasses the information on finances, examinations, placements of students, recognition to university and staff as a whole. The university is strengthened with nine constituent colleges along with other important units namely Directorate of Research, Directorate of Extension Education, Directorate of Human Resource Development, Directorate of Education, Director Students Welfare, Controller of easExamination and Estate Office. The university also has a Central library to enrich the knowledge of staff and students and a Center for Information Management and Computer Applications.

I am grateful to Hon'ble Vice Chancellor Dr. J.S. Sandhu for providing his stimulus and scholarly inputs in bringing out the SSR. I am grateful to all Deans, Directors, Head of the Departments and O/I for, providing the necessary information for this report. My sincere thanks are due to editorial

board whose diligent efforts have made this publication possible. I express my gratitude to Dr. N.K. Gupta Director Education who as a mentor has provided the guidance & encouragement in completion of this report.

The Self Study Report of Sri Karan Narendra Agricultural University is an embodiment of the endeavors and a reflection of the university as a benchmark for what has been embarked upon on striving ahead for the attainment of excellence.

Jobner March, 2021 Sunita Gupta

Director

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# **Chapter 1 University Governance**

#### 6.6 Sri KaranNarendra Agriculture University, Johner

Sri Karan Narendra Agriculture University, Jobner- Jaipur was established in September 2013 by Govt of Rajasthan under Agriculture University, Jobner Act, 20 of 2013 and name amendment Act, 23 of 2013 to impart teaching, research and extension activities in the field of agriculture and allied sciences. The University has been named as Sri Karan Narendra in the honour Sri. Rawal Narendra Singh ji and his father Sri Karan Singh ji who founded Sri Karan Narendra College of Agriculture at Jobner in 1947 which is a constituent college of this university. The territorial jurisdiction and responsibility of this University extend to three agro- climatic zones covering an area of 64 lakhs ha. This area is 1/6 land of the total area of the state, comprising eight districts of Rajasthan i.e. Sikar (Zone II A), Jaipur, Ajmer, Dausa, Tonk (Zone IIIA), Alwar, Bharatpur and Dholpur (Zone III B).



#### **6.6.1.** University Governance

The University is located in Jobner town which is 45 Km away by road from Jaipur. The nearest railway station is Asalpur-Jobner located at 10 km distance from the university campus. The organizational set up of the University includes, Directorate of Research, Directorate of Extension Education, Directorate of Prioritization, Monitoring & Evaluation, Directorate of Human Resource Development, Directorate of Students Welfare, Directorate of Education and Controller of Examination. The Registrar for administrative matters and the Comptroller for financial matters, posted by the State Govt. are also integral components of the University organization.

The Governor of the State is the Ex-Officio Chancellor of the University. Board of Management (BOM) is the apex constitutional body which approves the new policy and modifies the existing policies of the University. Other constitutional bodies of the University are Academic Council, Research Council and Extension Council. The academic bodies include Board of Studies and Committees of Courses at college and departmental level. The university has adopted the recommendations of V<sup>th</sup> Deans Committee of ICAR to impart undergraduate programme.

#### **Academics**

The University imparts quality education for the development of well-trained and specialized human resource in agriculture & allied sectors. The university has 06 constituent UG Colleges of Agriculture, one PG College of Agriculture and one College of Agribusiness Management, under self finance scheme at Johner. SKN College of Agriculture, Johner is the only PG college which offers four years B.Sc.(Hons.), two years M.Sc. (Ag.) in 11 disciplines and Ph.D. in 8 disciplines.

#### Constituent Colleges

- 1. SKN College of Agriculture, Johner
- 2. College of Agriculture, Lalsot (Dausa)
- 3. College of Agriculture, Kumher (Bharatpur)
- 4. College of Agriculture, Fatehpur- Shekhawati (Sikar)
- 5. College of Agriculture, Navgaon (Alwar)
- 6. College of Agriculture, Kotputli (Jaipur)
- 7. College of Agriculture, Baseri (Dholpur)
- 8. College of Agriculture, Kishangarhbas (Alwar)
- 9. SKN Collge of AgriBusiness Management, Johner

The University has produced 2789 graduates, 419 postgraduates and 109 Ph.D. students during last five years. Three convocations have been held during the reporting period on May 3, 2016; July 20, 2019; and Nov 25, 2020. The University received prestigious World Bank funded National Agricultural Higher Education Project (NAHEP) in 2020 from ICAR on "Strengthening Academic Ambience for Quality and Skill Oriented Undergraduate Education" worth Rs 23.89 Cr. The academic activities of under graduate programme will be strengthened and will help in long run to develop the infrastructure particularly virtual class room teachings. In 2019-20, a Model Career Development Centre (CDC) has been started in the university with the support of ICAR-NAARM, Hyderabad under NAHEP. It will help the students in overall personality development to take up diverse fields and better equipped with self-employment. Besides, following 11 government/private colleges are also affiliated with the University.

#### **Affiliated Colleges**

- 1. B.B.D. Govt. P.G. College, Chimanpura-Shahpura (Jaipur)
- **2.** Government College, Uniara (Tonk)
- 3. Dayanand College, Ajmer
- 4. M.B. Agriculture College, Tonk
- 5. Late Mool Chand Meena Agriculture College, Lalsot (Dausa)
- **6.** Pt. Deen Dayal Upadhyay Agriculture College, Deoli, (Tonk)
- 7. Maharaja Surajmal Agriculture College, Rahimpur, (Bharatpur
- **8.** O. P. Agriculture College, Budhwal, Behror (Alwar)
- 9. G. L. Memorial Agriculture College, Kishangarh Bas, Alwar
- 10. Rukmani Devi Memorial Ag. College Mandawar (Mahua), Dausa
- 11. Shekhawati Institute, Sikar

#### RESEARCH

Directorate of Research is the nodal set up of the University for executing the research schemes financially supported by ICAR/ DAC/ State Govt. and other external agencies. The focus of the Directorate is on developing research strategies to develop economically viable and ecologically sustainable crop production technologies and varieties which can be conveniently adopted by the farmers. University is actively engaged in seed production programmes for facilitating availability of improved seeds to the farmers in the state. The research grant mainly comes from ICAR & matching grant from the state government in the proportion of 75:25. It covers operational contingency, salary as well as travel allowances for the staff posted in AICRPs to carry out the experiments and attending workshops, seminars and symposia.19 AICRP projects, 21 RKVY projects, 04 adhoc projects and 24 testing projects from private companies are in operation in the university during the reporting period.

The research is being carried out in all three agro climatic zones in service area of the university through 3 ARS and 4 ARSS:

- 1. Zone-II a- Agricultural Research Station, Fatehpur-Shekhawati, Sikar.
- 2. Zone-III a- Rajasthan Agricultural Research Institute (Erstwhile ARS), Durgapura, Jaipur.
  - i. Agricultural Research Sub Station, Diggi, Tonk.
  - ii. Agricultural Research Sub Station, Kotputli, Jaipur.
  - iii. Agricultural Research Sub Station, Tabiji, Ajmer.
- 3. Zone-III b- Agricultural Research Station, Navgaon, Alwar

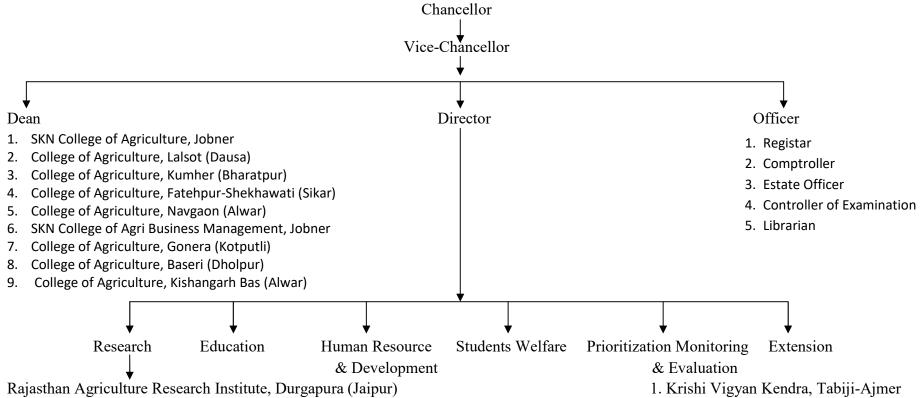
#### i. Agricultural Research Sub Station, Kumher, Bharatpur

The SKNAU research system also undertakes seed production programmes for facilitating availability of improved seeds to the farmers in the state. Maintaining effective linkage with line departments of GOR and providing relevant knowledge and technical information for policy issues related to agriculture development is important objectives of the university research system. Development of improved varieties and technologies by the university has opportunity of crossing the state boundaries and serving the farmers of other states as well. Quality seed for high yielding varieties constitute the mortar for productive agriculture. Thus, for adequate availability of certified seed of high yielding varieties, breeder seed in sufficient quantity is prerequisite. In this direction 13575.97 qt. breeder and 7185.42 qt. truthfully labeled seeds have been produced at seed production farms and research stations during reporting years.

#### **Extension Education**

The Directorate of Extension promotes agricultural development through transfer of agrotechniques by imparting training, advisory and farm information to extension personnel, line departments, farmers and other stake holders through seven KVKs located at Tabiji (Ajmer), Dausa, Gonera-(Kotputli), Navgaon (Alwar), Kumher (Bharatpur), Dholpur and Fatehpur (Sikar) and Agriculture Technology Management & Quality Improvement Centre (ATMQIC). During the reporting period, the University organizes d 994 on-campus and 2054 off campus trining through its KVKs with the participation of 14010 and 13597 farmers and farm women respectively. KVKs are conducting field activities like demonstrations, traing etc. in farmers field. From 2016-2019-20, frontline demonstrations were conducted by KVKs on 5845.24 hectares of land area under FLD, 1758.0 hectare area was oilseeds, 1502 hectares area pulses and rest 2584.24 hectare area was covered under other crops including cereals, minor millets, fodder, seed spices etc. About 25-30 percent increase in yield over and above local yield was recorded under front line demonstration. The University has an Agriculture Technology Management & Quality Improvement Centre (ATMQIC), "Single Window Delivery System" working to meet the requirements of the farmers in terms of new technologies viz seeds of improved varieties, planting materials, diagnostic facilities, literature for seeking information regarding various field problems etc. About 24,414 farmers visited the ATIC centre during the reporting years. ATMQIC has generated an income of Rs. 1, 51, 58,827 by the sale of inputs, literature and services.

#### Organizational Structure of SKNAU, Johner



- Agriculture Research Station, Fatehpur-Sekhawati (Sikar)
- Agriculture Research Station, Navgaon (Alwar)

#### **Agriculture Research Sub Station**

- Diggi (Tonk) Dholpur 1.
- Kotputli (Jaipur) 2.
- Tabiji (Ajmer) 3.
- Kumher (Bharat) 4.

- 2. Krishi Vigyan Kendra, Dausa
- 3. Krishi Vigyan Kendra, Kotputli (Jaipur)
- 4. Krishi Vigyan Kendra, Fatehpur (Sikar)
- 5. Krishi Vigyan Kendra, Navgaon (Alwar)
- 6. Krishi Vigyan Kendra, Kumher (Bharatpur)
- 7. Krishi Vigyan Kendra, (Kotputli)

#### 6.6.1.1. Vision, Mission and Goals

#### Vision of SKNAU

The University was established with the primary objective of education and upliftment of economically backward classes particularly of rural areas to adopt the modern practices in the field of agriculture, animal husbandry and horticulture etc. The University major focus is on teaching, research and extension education programmes in the field of agriculture and allied sciences for assuring sustainable food and rural economy, through imparting education and training in various disciplines. The University is developing improved varieties / hybrids of important cereals, pulses, millets, spices and horticultural crops suitable particularly for agro-climatic zones of the University. To reach the poorest farmers sitting at the remotest places, the University is focusing on the development of technologies for sustainability in agriculture production through optimal utilization of natural resources and nutrient recycling, disseminating various technologies, techniques, methodologies generated through research mode, capacity building of the farmers, government personnel, NGOs for recent update in Agriculture sciences. The University also looks for collaboration and linkages with various national and International organizations for overall agro ecological and sustainable development for the prosperity of Rajasthan state. Keeping in view of food security, quality, sustainable technology and mission of the health hazard of human, animls and plants, the University fore sees for conducting farmer centric, location specific research, refinement of technologiesaccording to farmers need, advancement in emerging area. Keeping in view the vision, the Unversity is focusing on the aspects of education, research and extension.

#### Mission

The mission of the University is to impart high quality education, research and extension services in agriculture and allied sciences.

**Goals:** To achieve the excellance in agriculture, education, research and extension education.

#### **6.6.1.2. Statutes and Regulations:**

The Umbrella Act and statutes of the University are approved by the Hon'ble Governer of Rajasthan and Chancellor and have been adopted. The Krishi Vishvidhayala, Jobner Act 2013 has been published in Gazette Notification and at present the University is following this act for administration and planning.

#### The Chancellor:

The Governor of the State is the Ex-Officio Chancellor of the University. At present, the Governor of Rajasthan State, Hon'ble Shri Kalraj Mishra is the Chancellor of the University.

#### The Vice Chancellor:

The Vice Chancellor is the highest executive authority for academic and administrative control of the University. With the two important statutorybody i.e. Board of Management (BoM)

and the Academic council, Vice Chancellor takes and implements the decisions through concerned authority or officers.

#### **Faculty Chairperson(s):**

The academic regulations of faculties are framed and implemented by each faculty chairperson through the statutory body- Board of studies (BoS). The recommendations of the Board of studies are approved in academic council.

#### **Directors:**

Directors of Research, Extension Education, Human Resource Development, Students Welfare, prioritization monitoring & Evaluation, Education are the authorities to regulate the functions of their which are under the direct control of the Vice Chancellor.

#### Deans:

Deans are the authorities to regulate the functioning of the constituent colleges in Agriculture.

#### Registrar:

Registrar and his/her office act as a system to implement the decisions of the Vice Chancellor and also act as Member secretary of the Board of management.

#### Comptroller:

His/her office is responsible for all financial matter of the University.

#### The controller of Examination:

The COE and his/her office are responsible for conducting all undergraduate examinations of the University.

#### **Estate officer:**

The E.O. is responsible for managing the affairs of the land resources and physical infrastructure including civil work of the University.

As per model Act of ICAR, the University has the Board of Management (BoM), Academic council, Board of Studies (BoS) for each faculty. Advisory Committees of Research, Extension, finance and other such bodies, as may be declared by the Statutes of the University. The University has adopted the recommendations of V<sup>th</sup> Deans Committee of ICAR to impart undergraduate programme.

#### **Board of Management**

The Board of management is the policy making body for the functioning of the University. It controls all the administrative and financial matters of the University. The Directors of Research and Extension propose/advise the Board of Management, on Research and Extension Activities, respectively. The Budgetary Finance committee on the financial matter and related issues in the Board of Management proposes the financial matters and related issues.

#### Ex-Officio Chairman – Hon; ble Vice- Chancellor

#### **Nominated Members**

- One member of Rajasthan Legislative assembly tobe nominated by the speaker of the Rajasthan Vidhan Sabha.
- Two eminent educationist/ Scientists from the field of Agriculture to be nominated by the Chancellor
- One progressive farmer within the jurisdiction of University to be nominated by the Government.
- One distinguished agro industraliast to be nominated by the Government
- One outstanding woman social worker having background of ruraladvancement to be nominated by the Government.
- One representative from the Indian Council of Agricultural Research
- One Director to be nominated by the Vice Chancellor
- One Dean to be nominated by the Vice Chancellor
- One University Professors nominated by the Vice- Chancellor

#### **Ex-officio Member**

• Secretary to the GovernmentDepartment of Agriculture, Government of Rajasthan. or his

Nominee not below the rank of Deputy Secretary

- Secretary to the Government, Incharge of the Finance Department or his nominee notbelow therank of Deputy Secretary
- Secretary to the Government, Incharge of the Higher Education Department or his nominee notbelow the rank of Deputy Secretary
- Secretary to the Government, Incharge of the Animal Husbandry Department or his nominee not below the rank of Deputy Secretary
- Registrar of the University, Member Secretary

#### **Academic Council:**

The academic council regulates the academic activities of all the colleges and institutions and exercise control over the courses, teaching, examinations and the award of degrees, diploma and certificates.

It comprises the following officials.

#### Ex-Officio Chairman- HonbleVice Chancellor

#### **Ex-Officio Members**

Registrar

Chairpersonsof all Faculties

Director, Research

Director, Extension Education

Director, Prioritization, Monitoring and Evaluation

Director StudentsWelfare

Director, HumanResource Development

Deans of all constituent colleges

Controller of Examinations

Members

University Heads of the Department From each faculty not below the rank of Associate Professor

One teacher of the Professor rank from each Faculty to be nominated by the ViceChancellor on rotational basis

#### **External Member**

One eminent Agricultural Educationist from outside of the University to be nominated by the ViceChancellor

**Invitee** Member

Comptroller

**Member** Secretary

Director of Education

Research Council

Research council known as the Research Advisory Committee (RAC) is the highest research body of the University responsible for formulating the research policies and giving

appropriate direction in research. The Vice Chancellor remains the chairman of the RAC and Director of Research as the Member Secretary. The other members include the Directors, Deans, ZDRs of the University, Heads of Department, Directors of state Deptt. of Agriculture, two eminent scientists from outside of the University nominated by the Vice Chancellor for their specialized knowledge of subjects on the agenda of meetings. Research Council may co-opt member's not more than four persons for a prescribed period to ensure adequate representation of different sectors of agriculture and allied fields. In the RAC meeting, convened twice a year, research projects and new thrust area of research are discussed and identified for future researches to be under taken by research personnel. Thus, RAC has the primary responsibilities of setting the research goals and providing the overall direction to the University research system. The composition of Research Advisory Committee (RAC) is as under.

Vice- Chancellor

Deans and Directors

Member

ZDRs

Member

University Heads of the Department

Directors of state Department

Experts in the field of Agriculture Research

Chairperson

Member

Member

Director Research Member Secretary

#### **Extension Council**

Extension council known as Extension Advisory Committee (EAC) is a statutory body comprising of the Vice Chancellor as its Chairman, Director of Extension Education as member Secretary, Secretary to the Government, Department of Agriculture, Directors of the state Agriculture Department, all Deans, Directors, ZDR, University Head of Department, Programme Co ordinators of KVKs, two eminent persons in the field of Extension Education from outside of the University nominated by the Vice- Chancellor, three progressive farmers having specialization in general agriculture as members. The committee meets twice a year to review the work, discuss and deliberate on the policy issues of the extension system. The composition of Extension Advisory Committee (EAC) is as under

Vice Chancellor	Chairman
Directors, Deans, University Head of Department	Member
Officer Incharge of all KVKs	Member
Directors of the state Agriculture Department	Member
Three Progressive farmers	Members
Two eminent persons in the field of Extension Education	Member

#### **Finance Committee**

Financial support of SKNAU comes from the central and state Governments through various channels. Allocations are received and distributed through the Comptroller, who is the member secretary appointed by the State Government.

#### **SelectionCommittee**

The selection committee comprises as per section V of Rajasthan Universities teachers and officer's selection for appointment Act-1974 and section 30(3) of SAUs Act, as amended from time to time. The composition of the selection committee is as under:

Vice Chancellor Chairman

An eminent Educationist To be nominated by the Chancellor.

An eminent Educationist To be nominated by the State Government.

One Member of the Board of Management To be nominated by the State Government for

a period of one year.

One member To be nominated by Board of Management.

Senior most Dean of the faculty

Director Research

**Director Extension Education** 

Head/ Professor of department concerned

External experts not connected with the University nominated by the Vice Chancellor out of a panel. The number of experts recommended by the Academic Council of the University per post is as follow:

Category of post	No. of experts
Dean/ Director in the pay scale not lower than that of the professor	3
Professor	3
Librarian	3
Associate Professor/ Assistant Professor and any teacher in similar pay scale	2
Registrar/ Dy. Registrar/ Asstt. Registrar or any other officer having	3
equivalent pay scale	
Dy. Librarian/ Asstt. Librarian	2

#### 6.6.1.3. University Statutory officers and their selection process:

The list of the statutory officers anctioned in the Act, is given below.

- i. The Vice-Chancellor;
- ii. The Directors;
- iii. The Deans;
- iv. The Registrar;
- v. The Comptroller;

- vi. The University Librarian;
- vii. The Controller of Examinations;
- viii. The Estate Officer; and
- ix. Such other persons in the service of the University as may be declared by the Statutes to be the Officers of the University.

#### University Statutory Officers and their selection process

S.No.	Name of the position	Name of Officer	Appointed/Nominated
01.	Vice Chancellor	Dr. J. S. Sandhu	Appointed by order of Governer of Raj.
02.	Registrar	Smt. Alka Vishnoi	Deputed by Government of Rajasthan
03.	Comptroller	Dr. R. Paliwal	Duty assigned
04.	Dean& facultyChairman	Dr. A.K.Gupta	Duty assigned
05.	Director Research	Dr. M.L. Jakhar	Duty assigned
06.	Director Extension	Dr. Sudesh Kumar	Duty assigned
07.	Director Education	Dr. N. K. Gupta	Duty assigned
08.	DirectorPM&E	Dr. Sunita Gupta	Duty assigned
09.	Director HRD	Dr. B.L. Kakraliya	Duty assigned
10.	DSW	Dr. I.M. Khan	Duty assigned
11.	Dean COA, Lalsot	Dr. S.S. Yadav	Duty assigned
12.	DeanCOA, Bharatpur	Dr. U.B. Singh	Duty assigned
13.	Dean COA, Fatehpur	Dr. R.S. Dhaka	Duty assigned
14.	Dean COA, Navgaon	Dr. R.P. Jat	Duty assigned
15.	Dean COA, Baseri	Dr. J. P. Yadav	Duty assigned
16.	Dean COA, Kotputli	Dr. Surendra Singh	Duty assigned
17.	Dean COA, Kishangarhbas	Dr. Shaitan Singh	Duty assigned
18.	Director RARI	Dr. A.S. Baloda	Duty assigned
19.	ZDR,ARS Fatehpur	Dr. S.K. Khandelwal	Duty assigned
20.	ZDR, ARS Navgaon	Dr. Harphool	Duty assigned
	Estate Officer	Sh. Lakhbeer Singh	Duty assigned

#### 6.6.1.4. Decentralization of power

The University is authorized GoR to provide education in agriculture and its allied subjects, award degrees, diloma and other distinctions. The University is also authorized to conduct research and provide extension services. It is empowered to maintain academic relation with the institutions dealing with agriculture, and allied sciences. In the interest of University, all types of administrative decisions are taken by BoM. The academic decisions are taken up by the Academic Council and the decision regarding financial matters are taken up by the Finance Committee.

Apart from this, the University has a complete decentralization system in respect to both fiscal and administrative dimensions. All types of administrative and financial powers have been delegated to the Deans, Directors, ZDRs and other officials of the University vide order no. F. ( )/Estt/ Gr.I/ SKNAU/2052 dated 17.03.2020.

The powers delegated to various committees of the University are as follows

#### **Board of Management**

- The Board of Management exercise the power given below and performs the following functions:
- To manage and administer the finance, revenue, assets and properties and also to acquire, dispose of hold or control the budget of the University.
- To control and supervise all the administrative affairs of the University.
- To approve and sanction the annual budget of the University
- To administer the funds placed at the disposal of the University for specific purposes
- To create post of teachers and employees in the academic or administrative or any other departmentor office, and also to determine the terms and conditions of service ofteachers/employees
- To specify the qualifications and functions of the teachers and employees
- To constitute committees standing or temporary for specific purpose
- To borrowmoney for capital investments with prior approval of the StateGovernment and make suitablearrangements for it repayment.
- To hold and control the property and the funds of the University and issue thegeneral directive on behalf of the University.
- To regulate and approve the appointments of visiting professors, Emeritus Professors, Fellows, Scientists and experts and to determine the term and conditions of such appointments.
- To enforcediscipline among teachers and employees, and to regulate and determine all mattersConcerning the University in accordance with the Act and the Statutes.

#### Academic council

The Academic Councilexercises the powers given below and performs the following functions:

- To advise the Board on all academic matters including the control and management of libraries and affiliation of colleges to the privileges of the University;
- To make recommendation for the institute of Professorships, Associate Professorships, Assistant Professorships and other teaching posts including posts in research and extension education;
- To make recommendation for the constitution or reconstitution of departments or Faculties of teaching, research and extension education
- To make regulations regarding the admission of students to the University and to

- determine the number of students to be admitted
- To make regulations relating to the courses of study leading to degrees, diplomasand certificates
- To make regulations relating to the conduct of examinations and to maintain andimprove standards of education
- To make recommendation to the Board regarding conferment of honorary degree
- To make recommendations regarding the qualifications to be prescribed for teachers in the University and
- To exercise such other powers and perform such other functions as may be conferred or imposed on it under the provisions of this Act or by the Board or by the ViceChancellor.

#### **Power and Functions of Research Council**

- Research programmes and projects undertaken or to be undertaken by the various units of thUniversityin the State in the field of agriculture and other alliedsciences with a view topromote effective co-ordination
- Physical, fiscal and administrative facilities required for implementing research projects
- Orienting research to meet farmers' needs
- integration of research, extension education and teaching and participation of research workers in teaching and extension education programme

#### **Power and Functions of Extension Council**

- The extension education programmes and projects of the University
- Coordination of extension education activities for improvement of agriculture and allied
- branches and for the development of rural communities
- Development of farmers' education and training and advisory services, identification and resolution of field problems and transmission of information
- Methodology of extension education
- Integration of extension education with teaching and research in the University and participation of teachers and research workers in extension education programmes
- Any other matter referred to it by the ViceChancellor, Board or any other authority of the University

#### **Finance Committee**

- To examine the annual accounts and budget estimates of the University and to advise the Board thereon
- To review the financial position of the University from time to time; and

• To make recommendations to the Board on all matters relating to the finances of the University

#### 6.6.1.5. Supporting Units

#### Maintenance cell:

The University has a well established maintenance cell in the form of Estate office which is headed by Asstt. Engineer, deputed by Government of Rajasthan. The E.O. office has an A. En., two ministerial and seven supporting staff. This cell looks after the construction of new as well as maintenance of existing buildings, roads, electricity and water supply within the campus as well as other units under the jurisdiction of SKNAU, Jobner. The office had received a total fund of Rs. 7583.50 lakhs from which 530.68 had been received from ICAR under D.S. grant, Rs.6701.32 from state govt. and 350.50 from other sources during last five years. In the reporting period works like construction of University administrative building, VC residence, Construction of college of Agriculture Bharatpur, Girls hostel, Dean residence, construction of college of Agriculture, Fatehpur, Girls hostel and Deans residence, construction of girls hostel and Dean residence at College of Agriculture, Lalsot, Construction of KVK Kotputli building, ATKC building and remote sensing lab at RARI, Durgapura, Jaipur, fencing of research farm, smart classroom at SKNCOA, Jobner, renovation of departments at SKNCOA, Jobner, Construction of college building wall and construction of college building at Kotputli, Navgaon and Dholpur.

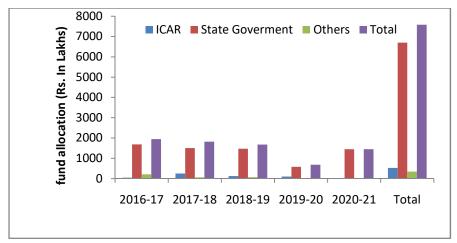


Figure1:- Fund allocation to Maintaince Cell during last five year

#### **SC/ST Cell:**

The SC/ST cells exist at the respective units of the University which look after the matters of the students belonging to SC/ST community. The various committees constituted in all the Agriculture Colleges to prevent caste-based discrimination in the colleges. At University level a SC/ST cell has constituted Vide order No. F. /PA/SKNAU/42/ dated 24.01.2020 to solve the grievences of SC/ST students and employees of the University.

#### **Grievence Redress Cell:**

To look after the **grievence** of the staff of the University, a grivence cell is functional vide order no. F. /PA/ SKNAU/42/ dated 24.01.2020. All kinds of grievence falling under the umbrella of University are communicated to the committee members who meets time to time to resolve the problems if any.

#### **Medical Facility:**

The services of Government doctor is available to look after the health of staff, students and their families in the campus. In case of any exigency for students, there is a facility of vehicle available 24x7 at the University headquater. The health insurance of all the students has been done compulsorily for any health issues arise.

#### Sexusal Harassment of Women at Workplace (Prevention, Prohibition & Redress Act 2013):

This cell is also functional at the University level vide letter No:F.76/Estt-1/SKNAU/1688 dated 29.01.2020.In compliance to this order, sub-committees have been constituted in each unit which assures that the women of the University are safe at their work place.

#### 6.6.1.6. Technology Support:

Quality education is an essential requisite in today's competitive environment where technology has affected us in every aspect of life. New teaching softwares have been introduced in the classroom teaching such as interactive flat panel display (65") attached with mini computers for 3D animated videos and modules interactive boards with writing softwares. LCD projectors are using in teaching programmes. In the CO -VID pandemic situation the classes were held using online learning tools such as CISCO Webex, Google meet, Zoom etc. Teaching material was provided to students by creating Whatapp grous. Technology support like computer laboratory, internet/Wi-Fi connectivity, smart classrooms with all digital amenities like digital podium, interactive boards, projectors, etc. are available in colleges, central library and otherimportant units of the University. Apart from this, the registration on Academic Management System (AMS) has been implemented to make a data base of faculty and staff in the University. Leased line connection of 1 GBPS has been procured for LAN/WAN connectivity to different units. Internet connectivity has also been provided in hostels, Guest house, all departments of SKN College of Agriculture, Jobner, Dean Office, library and computer lab etc.

**Table-1 Information on classroom Technology** 

Technologies in rooms,	University Campus	
Computer lab etc.	Campus is enabled with high speed internet & Wi-Fi facilities for all	
	PG, Ph.D., PG and UG students and staff.	
	The classrooms of the following colleges are equipped withIT	
	facilities.	
	i. SKN College of Agriculture, Jobner	

	<ul><li>ii. College of Agriculture, Lalsot</li><li>iii. College of Agriculture, Bharatpur</li></ul>	
Online learning tools	Available (CeRA)	
Internet/ Wi-Fi connectivity	Fi Available	
Student system	<ul> <li>i. Online fee management</li> <li>ii. Academic Management System for student registration, faculty data base, student data base</li> </ul>	
<b>Business application</b>	<ul> <li>i. Software for Comptroller office ( IUMS: Integrated University</li> <li>ii. Management System); Purchasing Government e-Marketplace (GeM)</li> </ul>	
Computer help-setup fore-mail firewalls and password reset being implemented at University level	<ul> <li>i. Google G-Suite to provide 650 official email accounts and</li> <li>ii. Groups for bulk emailing by CIMCA</li> <li>iii. Unlimited Google Drive</li> <li>iv. Microsoft A1 Licence for office apps</li> <li>v. University Website hosted and managed at local server</li> </ul>	

#### 6.6.1.7. Institutional Data Base and Website Update:

Centre for Information, Management and Computer Application (CIMCA) centrally maintains the University's website where all the activities related to education, research, extension and other activities related to University are regularly uploaded on the University website <a href="www.sknau.ac.in">www.sknau.ac.in</a>. The details of all University officers, staff tenders, vacancies, Content Mgt. System (CMS) of Agroadvisory and weather forecasting are available on the University website. CIMCA keeps close liaison with different units of the University about their significant event and keeps the website updated as and when required. The information is also shared on SKNAU IHE portal of GoR where students, Courses and faculty profile can be assessed. The details of research, extension and other Directorates and different units are available on the website along with their projects and publications of the University such as Annual reports, News letters, Research publications, Webinars recording and new initiatives taken up by the University. The schedule of examination and results are also uploaded on site time to time. The website is designed using asp.net SQL server database. The following are the characteristics of site.

- Management of Font size
- Bilingual in nature
- Dynamic: Unlimited page can be edited
- Unlimited storage
- A visitor's counter is also available on the University Website wwhich has recorded more than 2 lakhs visitors in the last two years.

#### 6.6.1.8. Interdepartmental Linkages

The University is currently adopting decentralized, participatory, adaptive and multifarious demand supply side extension- research-academic approaches which involve public, private and the civil society. All three components of the University viz education, research and extension are linked with each other in participatory mode and the faculties of these units are involved in all the three activities working on principle of integration. Research and extension faculties are providing their feed back and contribution in teaching as well as guiding students in all the constituent colleges of the University. Similarily the faculties posted in teaching are involved in research and exten sion activities as and when needed. Scientists posted in different research projects are giving their services in teaching as well as guiding M.Sc. and Ph.D. students. The students of college of ABM are offered courses of agriculture viz. Agronomy, horticulture, statistics, physiology, Animal science for which the agriculture faculty is assigned to take classes. Similarly teachers from other units of the University are involved in teaching and guiding PG students. They are also members of advisory committees of PG and Ph.D. students and multidisciplinary projects are carried out by involving scientists from other disciplines. Research and extension priorities of different zones are finalized by the ZREAC (Zonal Research & Extension Advisory Committee) of the respective agro-climate Zones. The officials of state Agriculture Department, ICAR institutes and progressive farmers are the impotant members of the ZREAC meeting in finalizing the recommendation and future research and extension activities. These recommendations are further passed on to KVKs for disseminating to farmers in the form of technologies. The private and third sector is civil society. It is an important component in the farmers, researchers and extension workers that is being taken up by the University for strengthening the capacity of the students, farmers, researchers and extension workers.

#### **6.6.1.9. Monitoring Mechanism:**

**Curriculum mechanism**: Comprehensive curriculum monitoring mechanism is being taken up by the Deans and Directors of the respective units of the University. The faculty Chairman, Board of studies and Academic council further look into the monitoring mechanism of the curriculum The University is currently following the Dean's committee recommendations in teaching programmes. The recommendations of 5 Deans Committee with the certain modifications suitable to the students according to their degrees have been implemented in the Colleges.

**Survey on teaching effectiveness**: The overall evaluation of a student in the courses registered is through end of the term examination in the semester. The assignments on special problems and seminars are also exercised to evaluate the student's performance. Teachers provide feedback to students and report student learning outcomes to parents at regular intervals. Similarly, the advisory system for post graduate students, HODs and Director Education keep a constant check on students academic performance as well as his/her personal and social behaviour.

**Examination system**: The Controller of Examinations (CoE) conducts the undergraduate examination at the University level while the post graduates exams are conducted at Dean's level. CCTVs have been installed in all the lecture rooms to monitor the regularity of classes. External examination system is followed in UG theory and practical examination.

**Teacher effectiveness**: The University has a well established advisory system for both undergraduate and postgraduate system. The newly admitted under graduate students are allocated with academic advisors who meet students once in a week to monitor the progress and problems faced by them during the course of study. Head of department and dean of constituent colleges interact with students from time to time to ensure quality education. They are also visiting classrooms especially the practical classes to ensure hand on trainings to the students and fields for farm demonstrations. Even the newly recruited faculty undergo a 15 day Orientation Course on "Effective Teaching, Research and Extension" and acquaint with the University service sysyem.

Annual Performance Appraisal Report (APAR): University is following comprehensive curriculum monitoring mechanism which includes teachers Annual Performance Appraisal Report (APAR) to check their teaching, research and extension effectiveness. APAR of assistant/associate professors or equivalent are evaluated by reporting officer, committee at department level and the accepting authority at Dean/Director level whereas the APAR of professors and equivalent are reviewed by the highest authority. This helps administration to monitor the faculty effectiveness and also to stress upon the improvement in overall system.

The attendance of the University staff is maintained by biometric system which is reported to the Governer's office as and when required. Regularity of students in classeses and daily lectures are also reported to the head of respective institution and send to Governer's office every month in the form of Monthly Progress Report. To evaluate working and behaviour of each employee five points monthly report is made by respective unit Incharge and send to higher authority for taking proper action

#### 6.6.1.10. Institute Quality Assurance Cell/PME Cell:

The Directorate of Prioritization, Monitoring and Evaluation was established Since Nov 13, 2013, with the objective to plan and monitor education, research, extension activities, human resource, finance etc. Directorate of Prioritization, Monitoring and Evaluation is responsible to explore and establish the priorities, monitor ongoing activities and evaluate the complete activities of the university. The directorate is responsible for coordinating all the units in terms of seeking information, compilation and preparation of various types of university documents viz annual reports, monthly reports, periodicals, newsletters, etc. for furnishing to ICAR and its Institutes, Governer of Rajasthan, various agriculture universities across the state and all academic units at national level. The directorate also prepares the documents for the ranking of the University in ICAR. PM&E is also responsible for compilation of the University activities and documentation in the form of Annual Report. The Directorate of Research takes overall charge of identification of thrust area of research, drawing upon research priorities of the University for Shortlisting Priority Researchable Problems across

crop/divisions/ programme, commodity etc. at the University level, coordinate and arrange for annual monitoring of each ongoing and completed research projects, coordinate and synthesize the recommendations of QRT, RAC, IRC etc.It maintains a data base of all publications and technologies developed.

#### 6.6.1.11. Collaboration with Academic Institutions and Industry:

Academia- industry is characterized by interactive and collaborative programme between academic institutions and industrial sectors for the attainment of certain reciprocally beneficial purpose and missions.

#### **Research and Extension:**

The University is carrying out projects funded from different agencies of GoI and GoR through ICAR, RKVY, NABARD as well as other organizations. Research and Extension linkages of the University with academic institutions and industries are mentioned below:

Particulars	Agency	Details
International	ICRISAT	Grant in the form of Harvest Plus programme (pearl millet)
	World Bank	Grant in the form of (NAHEP)National Agriculture Hiigher Education Project
National	ICAR,New Delhi	Grant in the form of AICRP Projects
		CAFT on Plant Biotechnology
	Deptt.of Biotechnology	AINP centre of root rot disease in
		chickpea.
	IMD, Pune	Grant in Aid in the form of Project GKMS
		and FASAL
	NAARM, Hyderabad	Diploma in Agriculture Extension
		Services for Input Dealers
	NAARM, Hyderabad	Career Development Centre
	Ministry of of Agriculture	Grant in the form of Seed Hub Projects Under NFSM
Other	ICAR-DRMR Sevar, Bharatpur	For Research and Extension activity
Organizations	ICAR-NRCSS, Tabijee Ajmer	
	ICAR-CSWRI Avikanagar	
	ICAR- CIAH Bikaner	
	Department of Application	Court for DVVV and out and for
	Department of Agriculture, GoR	Grant for RKVY projects and for extension of developed technologies
	Bayer crop Science Limited	Product Verification test trials

Pioneer Hybrid Pvt. Ltd.
Insecticides (India) Limited,
Delhi
BASF India Limited
Novozymes South Asia
Pvt.Ltd. Banglore
Godrej Agrovet Ltd., Mumbai
Adama India Pvt. Ltd.,
Hyderabad
Super Seed(s) Ltd., Hisar
Bisco Bio science Pvt. Ltd.
Rallis India Ltd.

#### **Collaborative Programmes:**

For any University to offer quality in academic and research Programmes, liaison with the other Institutes in relevant field is prerequisite, so that the students and staff get exposed to the new technologies being developed at the other Institutes. SKNAU is having liaison with ICAR institutes with in the state, and outside the state. University has the collaboration with following institutions:

Name of Institute	Details
National Bureau of soil survey and Land	Establishment of soil Monolith museum.
UsePlanning, Regional centre, Udaipur	
PushkarAgricultural Youth &Employment	Make farmers self determining in processing
Producer Company Ltd., Ajmer	their products such as rose and Aonla and sale
	through KVK,Ajmer
Agriculture University, Kota	Students Ph.D work and seed production
	programme
Amity University, Jaipur, Rajasthan	Collaborative work on Nanotechnology,
	Molecularbiologyand post harvest technology
DRMR, Sewar, Bharatpur	Research and seed productin programme
CIAH, Bikaner	Collaborative research work on arid fruits and
	under utilized crops of Arid zone
Central Soil Salinity Research Institute,	Student Ph.D Research work
Karnal	
MPUAT, Udaipur	Collaborative project
ILD Skills University, Jaipur	Students and faculty exchange in area of

	common interest
ICRISAT,Patencheru (Hyderabad)	Both the Institutes are working collaborative research work on pearlmillet, chickpea and Groundnut. The Ph.D scholars of this institute are utilizing molecular work facility of ICRISAT.
Horticulture Produce Management Institute, New Delhi	Both the Institute working for remote sensing advisory in Kotputli area.
Petrolium Conservation Research Associa (Gujrat)	Both are working for conservation of petroleum products in all the sectors of economy i.e. Industrial, transport, agriculture etc.

# The University has some more proposal for future collaboration. Details being given here under:

S.No.	Institute	Area
1.	CSIR – Central Electronics Engeeniring	Post Harvest Technology, Agriculture
	Research Institute, Pilani Rajasthan	implements, milk quality, Secondary Agriculture
		etc
2.	Mody University, Laxmangarh, Sikar	Nanotechnology, Green chemistry
	Raj.	
3.	Central Sheep & wool Research Institute,	Animal Production, Milk Processing
	Avikanagar, Malpura Tonk (Rajastha)	

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# Chapter 2 Academic Support

#### **6.6.2.** Academic Support

#### 6.6.2.1. Academic Council

The Academic Council of the University serves as an advisory academic body of the University and advices the Vice Chancellor and Executive Council on all academic, research and extension education matter asper SKNAU Act, 2013. The composition of Academic Council is given below.

Chairman Vice Chancellor, SKNAU, Jobner

External member(1) Eminent scientist

Ex-officio member Dean & Faculty Chairman, Deans of the Constitituent colleges

Directors of the University

Members Head of the Department

Member Registrar

Internal Member Nominated by Vice chancellor

Invitee members Comptroller and CoE Member Secretary Director Education

The meeting of Academic Council has been conducted regularly to discussand resolve the issues related to education in the University. In last five years, 12 AC meeting have been conducted as per the following details.

Table-2. The Academic Council meetings held during the last five years.

S. No.	Deatails of Meetings	Date
1.	3 <sup>rd</sup> Meeting	12.02.2016
2.	4 <sup>th</sup> Meeting(special)	02.05.2016
3.	5 <sup>th</sup> Meeting	27.02.2017
4.	6 <sup>th</sup> Meeting	28.04.2018
5.	7 <sup>th</sup> Meeting	21.02 2019
6.	8 <sup>th</sup> Meeting(special)	9.07.2019
7.	9 <sup>th</sup> Meeting	18.11.2019
8.	10 <sup>th</sup> Meeting	24.12.2019
9	11 <sup>th</sup> Meeting	17.06.2020
10.	12 <sup>th</sup> Meeting	17.09.2020

11.	13 <sup>th</sup> Meeting	21.10.2020
12.	14 <sup>th</sup> Meeting(special)	3.11.2020

#### Important decisions taken in the meeting:

- 1. To approve the performa of APAR/ACR for teaching /non-teaching staff of SKNAU, Johner.
- 2. To implement new guidelines for awarding university merit scholarship to PG students.
- 3. To start dual degree programme. Policy decision taken to strengthened linkage and research collaboration, particularly of Post-graduate students to take the research work in premier institutes of countries. It has been decided that a student may be to do research workfrom any institute outside university after completion of course work. It will give the advantage to the student to work in an institution which has much better infrastructures particularly laboratory facilities
- **4.** To approve anti-plagiarism policy in PG thesis.
- 5. To approve incentives to become life member of scientific society.
- **6.** To approve the guidelines for awarding gold medal to UG and PG students.

#### **Action Taken Reports**

#### 3<sup>rd</sup> Academic Council Metting

SKNAU/AC- 3/2016-1/1	To consider the proceeding of the meeting of the Academic Council heldon 10/01/2015. It was resolved to consider and approve.
SKNAU/AC- 3/2016-1/2	To confirm the action taken report of meeting of Academic Council dated 10/01/2015. It was resolved to confirm and approve.
SKNAU/AC- 3/2016-1/3	1. To consider The Director Education's proposal:  To confirm the notifications No. 6, 7, 8, 9, 10 and 11 issued by the Director Education for accreditation to teachers for master/Ph.D teaching/ guiding programme. It was resolved to confirm.
	<ol> <li>Increase in period of temporary withdrawal from existing two semesters to four semesters in Ph.D. programme. It was resolved to confirm.</li> <li>To approve the Memorandum of Understanding (MOU) between CCRI,</li> </ol>
	Nagpur and SKNAU, Jobner for bilateral agreement for recognizing CCRI, Nagpur for guiding M.Sc'/Ph.D. students.It was resolved to approve to follow the existing pattern of the parental University (Swami Keshwanand
	Rajasthan Agricultural University, Bikaner) and Memorandum of Understanding (MoU) should be executed as per existing pattern of parental University, otherwise MoU should not be executed,
	4. Allowing independent status of Ph.D. programme at RARI, Durgapura: Ph.D, programme at RARI, Durgapura has been initiated from the academic

session, 2012-13 in 5 disciplines (Agronomy, PBG, Horticulture, Plant Pathology and Entomology) with the intake capacity of 2 students in each department as per the approval of the BOM, SKRAU, Bikaner and orders issued by the Registrar in this endeavour which has been increased from time to time after approval from the competent bodies. Presently, 55 Ph.D. students have been enrolled in the programme since Jan., 2013. The registration of students of RARI, Durgapura, is being done at SKNCOA, Jobner since beginning (Jan. 2013). After registration, the record related to registered students as well as their deposited fee is sent to the RARI, Durgapura. All other formalities related to students like preparation of grade report/transcript etc. are done by the Director, RARI, itself. The Academic Council members were of the strong opinion that we have to provide independent status for running Ph.D. programme at RAIU, Durgapura, Jaipur by establishing a new constituent college of SKNAU, Johner for P.G. programme at RARI, Durgapura, Jaipur. Therefore, it is proposed to provide independent status to run the Ph.D. programme at RARI, Durgapura and this would be a separate new P.G. college, which will be the fifth constituent college of SKNAU. The issue may be put up in BOM and if approved from the BOM, the proposals of a new P.G. college having a similar identity and facility as a college will be sent to the state Government for final approval. (Action: Registrar)

- 5. Creation of Division of Plant Physiology at RARI, Durgapura, Jaipur. It was resolved to defer.
- 6. To start M.Sc. (Ag.) programme at RARI, Durgapura, Jaipur. Itwas resolved to defer.

#### SKNAU/AC-3/2016-1/4

To consider the proposals received from Dean &Faculty Chairman, SKNCOA, Jobner.

1. To start PG programme in MBA (Agri. Business Management).

It was resolved to defer till the directives and financial assistance is received from Govt. of Rajasthan. (Action: Dean & Faculty Chairman)

- 2. To propose B.Sc. (Ag.) + MBA (Agri. Business Management)- Integrated programme for 5 years after 10+2 education (Agriculture, Biology &Mathematics). Itwas resolved to defer till the directives to initiate this 05 years (B.Sc. (Ag.) + MBA) integrated programme along with some financial assistance from State Govt. is received. It was also realized by the house that only on self-finance basis, it will be difficult torun such programme. However, this programme is beneficial to students for development of entrepreneurship and more job opportunity in Public and Private Section. (Action: Dean & Faculty Chairman)
- 3. To propose one year Diploma course for Skill development in Agriculture.

It was resolved to defer till the directives to initiate this programme along with financial assistance is received from the Govt. of Rajasthan. (Action: Dean & Faculty Chairman)

- 4. To enhance library books security money. It was resolved to approve that the security money of books be increased to Rs.1200/-.(Action: Comptroller)
- 5. Transfer of students from one college to the other during B.Sc. (Hons.) Ag. Programme. Itwas resolved that inter-college transfer of students should be stopped forthwith. (Action: Dean & Faculty Chairman)
- 6. To increase remuneration to guest faculty invited as internal examiner in practical examination. Itwas resolved to approve that the guest faculty deputed as internal practical examiner be provided honorarium @ Rs. 500/- per day and for outsourcing faculty, it should be Rs, 400/- per day. (Action: Comptroller)
- 7. Deputation of one observer in each constituent as well as affiliated college for proper conduction of the final theory examination. **Itwas resolved to defer the issue.**
- 8. To start Ph.D. programme in the I semester from new academic session. It was resolved to approve. (Action: Director, Education)
- 9. To permit the faculty of RARI, Durgapura to act as major advisor of PG/Ph.D. Students of SKNCOA, Jobner. It was resolved to approve. (Action: Director, Education)
- 10. Admission in M.Sc. ICT Agriculture through pre PG test. It was resolved to drop the issue. .
- 11. To start Skill oriented course on Post harvest management and value addition of fruits and vegetables in addition to the existing course on Nursery management and land scapping in the Department of Horticulture for the students of B.Sc.(Hons.) Ag. Pt. IV. It was resolved to approve. (Action: Dean & Faculty Chairman)
- 12. To conduct entrance examination in Ph.D. admissions. It was resolved to approve with the directions that the Director Education shouldconduct the examination preferably On-Line Examination, for which necessary modus-operandi may be worked out and submitted before the Hon 'ble Vice-Chanegllor before conduction of examination. (Action: Director Education)
- 13. Engagement of teacher in private tuitions/ coaching. It was resolved to approve. (Action: Dean & Faculty Chairman)

SKNAU/AC- To consider proposals received from the Director Research, SKNAU, Johner.

3/2016-1/5	1. To consider the proposal of Dr. R.L. Midha Professor & Head Nematology for recruitment of Asstt. Prof. in AICRP on Nematode at RARI, Durgapura. It was resolved that a letter may be sent to the Project Coordinator, AICRP on Nematode to permission to SRF in of Assistant Professor till appointment on the post of Assistant Professor is made. (Action: Director Research)
SKNAU/AC- 3/2016-1/6	To consider the proposals submitted by COE, SKNAU, Jobner:  1. Introducing nominal fee for mid-term test of UG students to be made effective from I Semester 2015-16 onwards. It was resolved to drop as the midterm test has been abolished.  2. To decide the date of holding the first convocation of SKNAU. It was resolved to approve that the date of convocation may be fixed in between 14-18th March, 2016. (Action: Controllerof Examination), Director
	Beducation)  3. It was further resolved that adequate security features may be made in the Degree Paper to maintain secrecy and avoid any kind of duplicacy in degree certificates. (Action: Controller of Examinations)  4. Upward revision of scale of remuneration for evaluating UG answerbooks. It was resolved to approve that evaluation charges may be allowed @ Rs. 20/- per answer book w.e.f. Ist Semester 2016-17. (Action: Comptroller)  5. Remuneration to ministerial and supporting staff engaged in examination work. It was resolved to approve as proposed by the Controller of Examinations. (Action: Controller of Examination)  6. Introduction of marking scheme and preparing instructions to be followed by theory paper setters while preparing marking scheme. It was resolved to approve as per guidelines framed by the Hon'ble Governor of Rajasthan and Chancellor (SKNAU, Jobner).(Action:Controller of Examination)  7. Preparation of detailed guidelines regarding re-evaluation of theory answer books. It was resolved to drop the issue.
SKNAU/AC- 3/2016-1/7	To Consider proposals received from the Registrar, SKNAU, Jobner:  1. Allocation of a Scientist post at KVKs in Agricultmal Economics under SKNAU, Jobner.  2.To approve the format of AP AR, Personal History, Rules & Regulations for Senior/ Selection Scale under the Career Advancement Scheme and constitution of screening committee. It was resolved to approve as per recommendations of the Committee constituted, which may be followed,

	which may be considered for promotion under CAS upto selection scale.(Action: Registrar)  3. Initiation of process of promotion from Associate Professor to professor. It was resolved to approve with the directions that due process of promotion may be initiated. (Action: Registrar)
SKNAU/AC- 3/2016-1/8	To Consider proposal received from the Dean Student Welfare, SKNAU, Jobner.  1. To approve the constitution of Students' Union (Central Students' Union and College Union). It was resolved to approve that the recommendations of the Lingdoh Committee may be followed for the election of CSU and College Union.(Action: Director, Students' Welfare)
SKNAU/AC- 3/2016-1/9	To consider proposals received from Director HRD, SKNAU, Jobner:  1. To-approve guidelines for conducting trainings.  It was resolved to approve as proposed with deletion of point No.9 "the accommodation will be free of charge for trainees and guest faculty in the University/College Guest House". (Action:Director, HRD)
SKNAU/AC- 3/2015-1/10	To Consider proposal received from Head Biochemistry, SKNCOA, Jobner:  1. Defer M.Sc. (Ag.) Biochemistry Programme till the recruitment is made. It was resolved to approve. (Action:Dean&Faculty Chairman)
SKNAU/AC- 3/2015-1/11	Any other item with the permission of Chair ~  (A) To consider the proposals received from the Dean and Faculty Chairman, SKNCOA, Jobner:  (i) The fee structure of UG, M.Sc. (Ag.) and Ph.D. in our University should be parallel to other agricultural Universities in the state. Due to enhancement of expenditure for providing various facilities to the students for better education in both UG and PG, it is proposed that the fee structure of all the old and new UG & PG students taking education in all the constituent colleges and RARI, Durgapura must be similar from the next Academic session (2016-17). Further the fee may be increased by 10% every year for both new and old students.
	It was resolved that the fee structure of both new and old students of UG, PG and Ph.D. should be equal and every year 10% fee be enhanced to all the students from the next Academic session i.e 2016-17. It was also advised that a committee may be constituted by the Registrar to suggest the various ways to generate required revenue by the fee and other sources from colleges to run the education in an effective and smooth manner in the coming years. (Action: Registrar)

#### (ii) Reduction in additional fee for payment seat in M.Sc.(Ag) ICT:

Presently M.Sc.(Ag.) IT programme has been running at SKNCOA, Jobner since 2013 on self-finance basis. As per the approval in the Academic Council, the fee of payment seat for each student was Rs, 50,000/- per semester along with normal fee of the college. In the academic session 2015-16, the interest of the students for taking admission in the new course was not so encouraging and only four students have taken the admission. Hence, it was decided that In current academic session, this course will not be run in the Department of Statistics till the next session. As per feedback from students and staff, it has come to notice that to attract more number of students for this new course in Agriculture, we have to reduce the additional fee for payment seat from 50,000/- to 30,000/- per semester. To run this programme, minimum 10 students must be required to meet out the ex iture in the education instead of 5 as in the 1<sup>st</sup> Academic Council meeting. **It was resolved to defer the issue.** 

- (iii) Initiate a basic course on impact and assessment of technologies in Agri. Economics at M.Sc. and Ph.D. level: As per directions received from ADG (EQR), ICAR vide letter No.Edn.8-3/2015-EQR! datedso" Oct. 2015, a basic course on impact assessment of technology should also be introduced in Agril. Economics at M.Sc. and Ph.D. level, hence it is proposed to include one in the PG course programme from the next academic session as a major course by deleting one major less important course. Itwas resolved to approve that new course may be added by deleting one already approved major course at M.Sc. and Ph.D. level in Agriculture Economics after approval of the Committee of Courses effective from I" Semester 2016-17. (Action: HOD, Agr, Economics/Director Education)
- (iv) If a student of VI semester is detained from appearing in the final examination on the ground of shortage of attendance, the same course of the student is offered in VIn semester and coincides with the RA WE programme. Hence, it is not possible to run both the programmes like teaching of due course as well as continuation in RA WE. It is proposed that in such special cases the student may be allowed to appear in the final examination (Theory & Practical) of VIII semester as ex-students for that course.

Itwas resolved to approve. (Action: Dean & Faculty Chairman)

- (B) <u>To consider the proposals received from the Director Education,</u> <u>SKNAU, Jobner:</u>
- (i) Curtailment of residential requirement of Ph.D. programme from 5 semesters (2.5 years) to 4 semesters (2 years): Presently, there exists a provision that a student for Ph.D. programme is required to complete a minimum period of 5 semesters as residential requirement. To avail services

opportunities in Govt./Private sector there les been a strong demand from the students to reduce the residential requirement in Ph.D. programme from 5 semesters to 4 semesters. However, in MPAU&T and SKRAU such limit is 5 semesters for Ph.D. programmes. **Itwas resolved to defer.** 

### C) <u>To consider the proposals received from the Registrar, SKNAU,</u> <u>Jobner for allotment of post of Plant Protection in Nematology at KVK:</u>

One post of Plant protection of KVKs in the University may be allotted to Nematology department. Nematodes have been emerging as serious posts in all the crops including horticultural crops particularly under protected cultivation in almost all the district under SKNAU, Jobner. Presently there are 7 posts of Plant Protection (Ext.&Patho.) in all the seven KVKs. For redressing the existing problem of nematodes by educating farmers of the already available technologies to control nematodes, there is an urgent need that one post out of 7 of KVKs may be redeployed for the Nematology department in the coming years as per report submitted by the committee constituted for the purpose (enclosed). It was resolved to'-approve that one post of Plant Protection (Nematology) may be allotted at KVK, Kotputli. (Action: Registrar)

## (D) <u>To consider the proposals received from the Controller of Examinations SKNAU, Jobner:</u>

- (i) Equivalence of post of Controller of Examinations at par with Deans/Directors of the University. Itwas observed that the post of Controller of Examinations and Director (Prioritization, Monitoring and Evaluation) do exist in Sri Karan Narendra Agriculture University Act, 2013 but still not created by the Government, thus, for necessary amendment of equivalence of the post of Controller of Examination at par with Deans/Directors of the University, the Registrar may put up a proposal to the competent authority of the State Government for sanctioning both the posts after getting approval from the Board of Management. (Action: Registrar)
- (E) Constitution of Recruitment Cell: It was resolved that a Recruitment Cell for filling up vacant positions of the University is to be constituted by the Registrar with immediate effect. (Action: Registrar)
- (F) Study leave to in-service candidates: It was resolved that study leave to non-teaching staff may be made as per rules of Rajasthan Service Rules, for which a committee may be constituted by the Registrar. (Action: Registrar)
- (G) Grant of two advance increments on acquiring Ph.D. subject to pendency

	of litigation in the Hon'ble Rajasthan High Court: It was resolved that a committee may be constituted by the Registrar for the same. (Action: Registrar)				
	(H) Constitution of Steering Committee It was further resolved that a steering committee consisting of Director Research, Director Extension Education, Dr. B.K. Sharma, Administrative Secretary to the Hon'ble Vice-Chancellor, Dr. Ravindra Paliwal, Prof. (Horticulture) and Technical Advisor to the Hon'ble Minister of Agriculture, RARI, Durgapura, Dr. Surendra Singh Manohar, Prof. (Agronomy) and Nodal Officer (SKNAU), RARI, Durgapura is to be constituted by the Registrar for compliance of the priority areas of the Hon'ble Minister of Agriculture, Govt. of Rajasthan and for initiating innovations based on priority areas of the State Government. (Action: Registrar)				
SKNAU/AC -4/2016-4/1	requirements for their Pacheler's / Master's / Dectoral degrees from Sri				
	1. Bachelor's Degree in Agriculcutre  {B.Sc.(Hons.) Ag}  No. of students				
	a. SKN College of Agriculture, Jobner 100				
	b. College of Agriculture, Lalsot	43			
	c.BBD Govt. PG College, Chimanpura Shahpura (Jaipur)	60			
	d. Dayanand College, Ajmer 53				
	Sub Total: 256				
	256 Master's Degree in Agriculture (M.Sc. (Ag.)				
	SKN College of Agriculture	80			
	Doctoral Degree in Agriculture (Ph.D. (Ag.))				
	SKN College of Agriculture, Jobner	13			

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SKNAU/AC	To consider and approve the matter regarding award of Gold Medals to the		
-4/2016-4/2	under graduate and post graduate students as per list enclosed.		
	It was resolved to approve the list of Gold Medals to be awarded to the		
	undergraduate and post graduate students as per the list submitted by the Controller of Examination. Session wise and Degree wise details of Gold		
	Medals are given as under:		
	1. Academic Session 2014-15  No. of Gold Medals		
	1. Bachelor of Science (Honours) Agriculture : 01		
	2. Academic Session 2013-14 Master of Scienc (Agriculture) : 06		
	3. Academic Session 2014-15 Master of Science (Agriculture) : 07		
	Total No. of Gold Medals to be awarded : 14		
SKNAU/AC	To confirm the proceedings of the 3 <sup>rd</sup> meeting of Academic Council held on		
-5/2017-1/1	12 <sup>th</sup> Feb, 2016. It was resolved to approve.		
SKNAU/AC	Action taken report of the 3rd meeting of Academic Council held on 12 <sup>th</sup> Feb,		
-5/2017-1/2	2016. It was resolved to approve.		
SKNAU/AC	To' confirm the proceedings of the 4 <sup>th</sup> special meeting of Academic Council		
-5/2017-1/3	held on 02 <sup>nd</sup> May, 2016. <b>It was resolved to approve.</b>		
SKNAU/AC	Action taken report of the 4 <sup>th</sup> special meeting of Academic Council held on		
-5/2017-1/4	02 <sup>nd</sup> May, 2016, <b>It was resolved to approve.</b>		
-3/2017-1/4			
SKNAU/AC	To consider The Director Education's proposals:		
-5/2017-1/5	1. To confirm the following notifications issued by the Director Education for		
	accreditation		
	of teachers for Master/Ph.D teaching/guiding programme,		
	i) F6()/Dir.Edu./SKNAU/Accred/2015/2621-65 dated 22.12.2015		
	ii) F6()/Dir.Edu./SKNAU/Accred/2015/2666-70 dated 22.12.2015		
	iii) F6()/Dir.Edu./SKNAU/Accred/2015/2707-11 dated 30.12.2015		
	iv) F60)/Dir.Edu./SKNAU/Accred/2016/2890-2900 dated 29.02.2016		
	v) F6()/Dir.Edu./SKNAU/Accred/2016/2936-39 dated 16.03.2016		
	vi) F6(26)/Dir. Edu./SKNAU/Accred/2016/4207-10 dated 12.7.2016		
	vii) F6(26)/Dir.Edu./SKNAU/Accred/2016/4446-51 dated 01.9.2016		
	viii) F6(26)/Dir.Edu./SKNAU/Accred/2016/4754-58 dated 09.11.2016		
	ix) F6(26)/Dir.Edu./SKNAU/Accred/2017/5018-22 dated 09.01.2017		
	It was resolved to approve.(Action : Director Education)		

- 2. To approve the Panel of Examiners for M.Sc. (Ag.)/ Ph.D. Thesis Evaluation, VivaVoce, Comprehensive/Preliminary Examinations. It was resolved to approve. (Action: Director Education)
- 3. Uniformity in Ph.D grade reports/mark sheets. It was resolved to approve that there should be uniform pattern of grade reports/mark sheets. Sample of grade reports/marks sheets as presented in the House has been approved with the directions to the Dean & FC, SKNCOA, Johner to provide similar grade reports/ marksheets to all concerned. It was also resolved that the final mark sheet should have photograph of the student with bar code. It was further resolved that the Director, RARI, Durgapura will send the marks to the Dean, SKNCOA, Johner after counter signature.(Action: Dean, SKNCOA, Johner and Director, RARI, Durgapura)
- 4. To clear/uniform the term "Literature cited or 'Bibliography' in the Post Graduate Studies Regulations, 2014 of SKNAU, Johner on page No. 28, Appendix-III point no. 18 & page No. 38. It was resolved to approve that the existing pattern/system should be followed. (Action: Director Education)

## SKNAU/AC -S/2017-1/6

1.To consider the proposals received from Registrar, SKNAU, Johner:

To approve the format of APAR, personal history, Score card for senior scale/Selection scale (01'-1 to II, II to III, III to IV & IV to V) under the CAS as such of SKRAU, Bikaner. It was resolved to approve. (Action: Registrar)

- 2. To Approve format of score curd and application form for direct selection of Asstt, Prof./Assoc. Prof.lProfessor/PC/SMS as such of SKRAU; Bikaner. It: was resolved to approve that these formats approved and regulated by the parental University (SKRAU, Bikaner) may be followed. However, formats earlier approved may be replaced with the formats regulated hy the parental University as On 27.02.2017. (Action: Registrar)
- 3. To approve the format of score card for direct selection of Asstt. Librarian/Asstt, Director Physical Education (ADPE) as such of MPUAT, Udaipur. It was resolved to approve as regulated by the MPU&AT, Udaipur.(Action: Registrar)
- 4. To approve educational qualifications, experiences and other term & conditions for direct selection of Asstt. Prof./Assoc. Prof./Prof./PC/SMS/Asstt. Librarian/Asstt. Director Physical Education (ADPE) and post of non teaching as such of SKRAU, Bikaner. It was resolved approve with insertion of quanlification of Agriculture Engineering Subject. It was further resolved that the qualification may be amended from time to time, as amended by the University Grants Commission/State Govt.". It was further resolved that the reservation policy in recruitment may be followed, as implemented/amended

by the State Government from time to time.

It was also resolved that the qualification and age limit of Programme Coordinator and Subject Matter Specialist will be taken into consideration and finalized as per communication from the Director, ATARI, Jodhpur and/or parental University. The alternative subjects of various disciplines will be considered as adopted by the parental University and the application fee will be charged as per pattern of the parental University. Further, the House was of the view that essential qualification for recruitment of Assistant Professor, (mentioned at No. V in Annexure appended to this Agenda Item) be replaced as "NET shall not be required for such Masters Programme in discipline for which NET is not conducted" in place of "relaxation in NET may be given in subjects, where not a single qualified candidate is available and recruitment is essential". Similary, in case of recruitment of Clerk Grade-II, the essential qualification of typing test as notified by Swami Keshwanand Rajasthan Agricultural University, Bikaner is required, which should be incorporated. It was thus resolved that both the suggestions may be added in essential qualifications of both the respective posts accordingly.(Action: Registrar)

- 5. To approve the Panel of Experts of different disciplines. It was resolved to approve.(Action: Registrar)
- 6.To approve delegation of the Deans/ powers to Directors/Registrar/Comptroller for giving permission to teachers/scientists for attending Seminar/Symposium/Workshop/Review Meeting/Internal Project Meetings/Winter-Summer School/Refresher Course/Trainings/ Short Course/International Meeting etc. . It was resolved to approve proposal submitted by Committee with following incorporation:
- (i) For any international events organized outside India and events requiring finance from University, permission will be accorded by University. The application for the same be routed through concerned Dean/ Director.
- (ii) Awards/Fellow, if awarded by reputed society of national level is permitted, a list of Societies considered for the purpose will be submitted by the Committee of Director (Research), Director (Extension Education) and Dean and Faculty Chairman to the Registrar for its circulation.
- (vii) Total participation in a year (1st January to 31st December) from Sr. No. 1 (Seminar/Symposium/Conference), 2 (Winter/Summer School), 3 (Short Training), 5 (Award/Fellow), one can be permitted for only two participation.
- (viii)All applications for attending Seminar/Symposium/Training/Winter-Suminer School shall be routed through Director, HRD.

Further, since participation of Workshop/other Project work is mandatory, the participation may be allowed by concerned Dean/Director

## SKNAU/AC -5/2017-1/7

1. To consider the proposals received from Dean & Faculty Chairman, SKNCOA, Johner: 1. To consider the proceedings of the BOS meeting held on 10th Feb, 2017. It was resolved to approve with following points for consideration:

The approved course curriculum will be implemented for the students admitted in new session.

The Head, Deptt. of Extension Education pointed out that name of Department of Extension Education has been changed as per 5th Deans' Committee Report. Likewise, information may be obtained from Dean & FC for other Departments for change of nomenclature and communicate the same to Deptt. of Agric., Govt. of Rajasthan for further necessary action. (Action: Registrar & Dean and Faculty Chairman).

- 6. To consider addition in rule No. 4 of IX-Rules of Attendance of Information Bulletin 2014-15. It was resolved to approve that the students will be provided an option for re-registration in the class within seven days of the cancellation of their registration by paying of Rs. 500/- in place of Rs. 250/-. Further, if a student fails to avail this option, he/she may seek re-registration within two weeks of the cancellation by paying a fee of Rs. 1000/- in place of Rs. 500/-. However, fulfilment of attendance requirement will be his/her responsibility. The above amendment may be made in the Information Bulletin and be implemented from next academic session (2017-18). (Action: Dean & FC, SKNCOA, Johner)
- 7. To re-consider Academic Council agenda item No. SKNAU/AC-3/2015-1/4/4 regarding one year Diploma Course for Skill Development in Agriculture. It was resolved that the proposals may be re-submitted to the State Government by the Director, HRD. A Committee may be constituted under the Convener-ship of Dean and Faculty Chairman, Dr. N.K. Sharma (Director, Extension Education), Dr. (Mrs.) Madhuri Joshi (University Librarian), Dr. B.S. Shekhawat, Director (Education) and Dr. K.N. Gupta, Prof. & University Head, Deptt. of Statistics for framing guidelines.(Action: Dean & FC, SKNCOA, Jobner)
- 8. To re-consider Academic Council agenda item No. SKNAU/AC-3/2015-1/11-A(iv)regarding forfeiting of fee on leaving the college. It was resolved to approve that the rules, if any, may be taken into consideration before forfeiting of fee of a student on leaving the College. The decision will be applied not only on the students seeking admission through ICAR but on all other students.(Action: Dean & FC, SKNCOA, Jobner)
- 9. To consider revision of fee charges for thesis evaluation of M.Sc. (Ag.) and Ph.D. students, SKNAU, Johner. It was resolved to approve that the thesis evaluation fee for M.Sc. (Ag.) and Ph.D. students, it should be Rs. 400/-

and Rs. 800/-, respectively and for thesis re-evaluation fee for M.Sc. (Ag.) students and for Ph.D. students, it should be Rs. 800/- and Rs. 1400/-, respectively. The above revision will be implemented from next academic session (2017-18) on new admissions. (Action: Dean & FC, SKNCOA, Jobner) SKNAU/AC To consider proposals received from the Director Students' Welfare, SKNAU, Jobner: -5/2017-1/8 Clarification in eligibility criteria to contest election regarding disciplinary actiontaken against student by College/University authorities in any degree programme of study in the constitution of students' union election. It was resolved to approve with the disciplinary action also includes "issuance of warning to the student, if any", which may be inserted/added in the Information Bulletin.(Action: Dean & FC, SKNCOA, Jobner) SKNAU/AC 1. For framing course of action against the defaulter examiners and those who refuse for evaluation work. It was resolved to approve to amend that -5/2017-1/9 remuneration to paper setters may be increased to Rs. 2000/- typed version for both languages (Hindi & English) from existing remuneration of Rs. 800/- per paper basis. Examiners setting question paper in one language shall be paid Rs. 1000/- only. However, there will be reduction from remuneration on causing mistake in the paper i.e. for first mistake Rs. 250/- will be deducted and for subsequent mistakes in the paper, Rs. 100/- per mistake will be deducted upto total 5 mistakes and for further mistakes, it will be deducted @ Rs. 50/- per mistake. In this regard, a committee under the Convener-ship of Director, Education, Director, HRD and Comptroller may be constituted for framing guidelines.(Action: COE) 2. For deciding the tentative date of holding the second convocation of SKNAU. It was resolved that the next Convocation may be held in between the months of October-Nov after Dipawali.(Action: COE) 3. For starting remuneration to ministerial and supporting staff engaged in examination work. It was resolved that a committee under the Convener-ship of Dr. B.K. Sharma, Administrative Secretary, Dr. O.P. Sharma, OSD & Technical Advisor, Dr. Ravindra Paliwal, Director, HRD, Dr. Dhirendra Singh, Prof., Deptt. of Plant Breeding & Genetics and Comptroller nominee may be constituted for framing guidelines for grant of remuneration to ministerial and support staff engaged in examination work and the committee may submit its report within a period of 02 months. (Action: COE) Agenda Item No. SKNAU/AC-5/2017/9(6). **4.** For framing rules regarding limit of number of due papers to be attempted. It was resolved to approve that there will be limit of 05 courses of due

papers to be attempted, which will be applicable from new academic session (2017-18) from fresh batch. (Action: COE/Dean & FC, SKNCOA, Jobner) 5. For framing rules regarding engaging amanuensis. It was resolved to approve that the Committee constituted at Agenda Item No. SKNAU/AC-5/2017-1/9 may frame the guidelines in this regard; however, Director (Students Welfare) will be the Convener of this Committee. (Action: COE) 6. For framing elaborated rules regarding withdrawal of semester in UG programme. Itwas resolved to approve that the existing system may be followed, however, the Registrar may constitute a committee for framing guidelines in this regard. (Action: Registrar) 7. To consider experience of working as Controller of Examinations at par with Deans/Directors of the University. It was resolved to defer this subagenda for the time being. (Action: COE) 8. To institute Chancellor's Gold Medal to meritorious student. It was resolved to approve that a committee under the Convener-ship of Director, Education, Dean and Faculty Chairman, Director, Students' Welfare, Controller of Examination, and senior Head of Department may be constituted for framing guidelines for institution of Chancellor's Gold Medal to meritorious student. (Action: Director Education) SKNAU/AC To consider proposals received from the Dean, COA, Lalsot: 1. To start Post-Graduate Programme in the disciplines of Agronomy, -5/2017-1/10 Horticulture and Plant Pathology. It was resolved to defer the issue. (Action: **Director Education**) To consider proposals received from the SKNCOABM, Johner: SKNAU/AC 1. To consider replacement of existing courses by those recommended by the -5/2017-1/11 Fifth Deans'Committee from the next academic session. It was resolved to approve. (Action: SKNCOABM, Jobner) 2. To decide number of seats and mode of admission to B.Sc. (Ag) Head MBA (AgriBusiness Management) Integrated Five Year Programme for the Session 2017-18. It was resolved to approve that there will be total 120 seats for admission to B.Sc. (Ag.) & MBA (Agri-Business Management) and the admission will be made through Joint Entrance Test.(Action: SKNCOABM, Jobner) 3. To approve the same rules for ABM students as applicable to UG students of Agriculture honours programme under SKNAU. It was resolved to approve.(Action: SKNCOABM, Jobner)

## SKNAU/AC To consider proposal received from Head, PBG, RARI, Durgapura-Jaipur: 1. To allow External Examiners for M.Sc. (Ag.) & Ph.D. level Comprehensive -5/2017-1/14 oral Examination & Ph.D. Viva-Voce examination to travel by hired taxi or own vehicle on the rate @ 11/- per km instead of 7.25/- per km. It was resolved that this issue has already been discussed and resolved at Agenda Item No. SKNAU/AC-5/2017-12(1). SKNAU/AC To consider proposal received from Chief Hostel Warden, SKN College of Agriculture, Jobner: -5/2017-1/15 1. Addition in the Indiscipline rule No. 1.4 (j)-non-hosteller student should not enter in thehostel during night hours without prior permission of the Dean/Chief Hostel Warden/ Warden. If any non-hosteller student found guilty/involvement in any criminal activity or offence the whole responsibility will be the non-hosteller student and he will be liable to fine, suspension, removal from the college. 2. Addition of a new rule i.e. (o) in the Indiscipline rule No. 1.4- involvement of the students in any kind of cyber crime will be liable to suspension, removal from the hostel or college. It was resolved to approve that for both these sub-agendas (1&2), a committee under the Convener-ship of Director, Education, Dean & Faculty Chairman, Director, Students' Welfare, Controller of Examination, Senior Head of Department may be constituted.(Action: Director Education) SKNAU/AC SUPPLEMENTARY AGENDA -5/2017-1/16 Following supplementary agenda were discussed and resolved as under: 1.Supplementary Agenda No. 1 (put up by Director, PM&E): To promote competitiveness and improvement in the standard of research and teaching in the University, the scientists/teachers are to be encouraged by way of providing award and appreciation certificates: It was resolved to approve that a Committee under the Convener-ship of Director PM&E, Director Research, Director Extension Education and Dean and Faculty Chairman may be constituted for framing guidelines for award of Best Teacher Award in view of the guidelines framed by the ICAR.(Action: Above Officers) 2.Supplementary Agenda No. 2 (put up by Dean & FC): Separate budget

provision for awarding University Merit Scholarship to M.Sc. (Ag.) and Ph.D. students: It was resolved to approve that the existing merit scholarship (two scholarships in each subject) may be revised from Rs. 800/- to Rs. 1000/- per month for M.Sc. (Ag.) programme for a period of 24 months for two scholarships and for Ph.D. programme, it may be revised from Rs.

1200/- to Rs. 1500/- per month for a period of 30 months. The above revision will be made from the next academic session. (Action: Dean & FC, Jobner)

3. Supplementary Agenda No. 3 (put up by University Head (Extension Education): Considering M.Sc. (ICT) for admission to Ph.D. Agriculture (Extension Education) as based on recommendation of Committee, students of M.Sc. ICT are not eligible for admission to Ph.D. Extension Education. It was resolved that for such students seeking admission to Ph.D. Extension Education, a Committee may be constituted for exploring possibilities for Ph.D. admission. The Committee may also recommend the Govt. to consider their qualification at par with post graduation in Agriculture. The Committee consists of the following:

(i) Dean & Faculty Chairman

- Convener

(ii) Director Extension Education

- Member

(iii) University Head, Ag. Statistics- Member

(iv) University Head, Extension Education- Member

(Action: Director Education)

## SKNAUJAC -6/2018-1/1

To confirm the proceeding of the 5th meeting of Academic Council held on 27.02.2017. It was resolved to confirm with slight modification in the Score Card prescribed for grant of benefit of Career Advancement Scheme to the eligible Assistant Professors and Associate Professors adopted from parental University (SKRAU, Bikaner), which is resolved to modify as under as per guidelines prescribed by the UGC regulation 2010: Asstt. Professor (Stage III) to Associate Professor (Stage IV): Note - Minimum Academic Performance Requirements for promotion of Assistant Professor Stage III to Associate Professor Stage IV -- Service Requirements: Minimum 03 years of service in Stage III on the post of Assistant Professor instead of 05 years of service. One course/programme of one week's duration completed during assessment period instead of 2/3 weeks.

It was also resolved that the prescribed interview marks will be 20 in score card for Assistant Professor to Associate Professor (Stage III to Stage IV) as against total marks prescribed as 100 for assessing the eligibility criteria for grant of this benefit. These marks were not mentioned in score card adopted from SKRAU, Bikaner.It was further resolved that the UGC Regulation 2010 (Clause/Rule 6.3.12) will be applicable for grant of benefit of Career Advancement Scheme for the teachers. The framed Eligibility guidelines for CAS of Associate Professor (Stage-IV) and Professor (Stage V) as per UGC regulation 2010, circulated to Members, it was resolved to approve the guidelines (Annexure 1 & Annexure-II). (Action: Registrar, SKNAU)

## SKNAU/AC

-6/2018-1/2

To approve Action taken report of the 5th meeting of Academic Council held on 27.02.2017 It was resolved to approve the action taken report of the last 5th Meeting of Academic Council held on 27.02.2017 with the directions that during last meeting of Academic Council, in number of agendas, while resolving the issues, different Committees were constituted, however, on some of the issues, not a single meeting of Committees were held and thus directed to the convener of respective committee to convene the meeting for which assignment was made and submit report of the Committee for further action. (Director, Education).

It was further resolved that the travel permission by air to the scientists working in Non-Plan will be granted by the Comptroller through respective Deans/Directors as per availability of budget and for the scientists working in ICAR Plan, the permission will be granted by the respective Dean and Directors, för attending annual group meet of the project only subject to availability of budget in the respective Project.(Action: Comptroller, Deans/Directors)

The Council directed the Deans of the Colleges that they should run the elective courses as per resources available with them. For RAWE Programmes, the students of affiliated colleges may be considered and not students of private Universities & colleges. Further, while reconsidering the agenda of last academic council No. SKNAU/AC-3/2015-1/4/4, it was resolved that One Year Diploma Course may be conducted only for skill oriented programme. (Action: Dean & Faculty Chairman)

While discussing proceedings of Supplementary Agenda No. 1 of last meeting of Academic Council, the Council has directed that the Committee already constituted with regard to promote competitiveness and improvement in the standard of research and teaching in the University, the scientists/teachers are to be encouraged by way of providing award and appreciation certificates, the same Committee may also frame criteria for grant of award/certificate to non-teaching cadre staffs and submit report by 15" of June, 2018.(Action: Director, PM&E).

The external member Dr. Gupta suggested that while convening further meeting of the Council, the action taken report should be brief having 1-2 lines about agenda for easement in discussion. (Action: Director, Education).

## SKNAUIAC -6/2018-1/3

To consider the Director Education's proposals:

1. Accreditation of teachers for M.Sc. (Ag.)/Ph.D teaching and guiding programme. It was resolved to approve that the existing rule may be continued, however, a committee of the following may be constituted to work out the rules and regulations as per and also keeping in view the exigent circumstances

for teaching and guiding programme:

(i) Director, Education - Convener

(ii) Dean and Faculty Chairman - Member

(iii) Head of the Departments - Members

(Agronomy, Horticulture and Entomology)

2. To finalize the Hindi version of thesis title during the presentation of synopsis seminar inPG/Ph.D. programme. It was resolved to approve.(Action: Director, Education)

## SKNAUJAC

-6/2018-1/4

To consider the proposals received from Registrar, SKNAU, Johner

- 1. Approval of Panel of Experts in different discipline. It was resolved to approve the panel of experts of the subjects/posts: Programme Coordinator, Agro-meteorology, different disciplines of Home Science (Textiles and Apparel Designing, Home Science Extension and Communication Management, Family Resource Management, Food & Nutrition, Human Development and Family Studies), Agro Forestry and Forestry. Further, it was resolved that for the post of Technical Officer, one expert from Agro-meteorology and one from any eligible major subject may be nominated for conduction of interview. Similarly, for the post of SMS (Plant Protection), one expert from Plant Pathology and one from Entomology may be nominated for conduction of interview. In case of SMS (Home Science), one expert from cach subject of the eligible candidates may be called.
- 2. Establishment of a new Agriculture College at Navgaon (Distt. Alwar) Campus of the University pursuant to budgetary announcement of the Hon'ble Chief Minister of Rajasthan. It was resolved to approve. Further, allotment of seats to this College may be followed at par with the Agriculture College, Fatehpur-Sikar and Kumher (Bharatpur). Further, the following allocations of posts of teaching cadre posts were approved. i) Dean-01 ii) Associate Professor 02 (Agronomy-01 and Horticulture-01) iii) Assistant Professor 10 (PBG-01, Horticulture-01, Soil Science -- 01, Ext. Education -01, Pl. Pathology 01, Entomology 01, Agronomy 01, Agril. Economics 01, Pl. Physiology 01, Mathematics 01). (Action: Registrar)
- 3.Opening of M.Sc.(Ag.) and Ph.D. in Nematology, Agro-meteorology and Seed Technologyas per Hon'ble Agriculture Minister's announcement during cut motion on Agriculture in Vidhan Sabha. It was resolved to approve that with the available infrastructural facilities and staff at RARI, Durgapura, the course of M.Sc. (A3.) in Nematology may be started from new academic session 2018-19 with total 04 seats all on payment basis. Dr. R.L. Midha, Prof. (Namatology), RARI, Durgapura has been directed to finalize course curriculla. However, for start of other courses on Agro-meteorology and Seed

Technology, the Proposal may be submitted to the State Govt. for grant of requisite posts and funds. For preparing Proposals, Dr. N.K. Gupta, Prof. (Plant Physiology) and Dr. Rani Saxena, Asstt. Prof. (Agro-meteorology) of RARI, Durgapura, Jaipur has been authorized to prepare proposals for Seed Technology and Agro-meteorology, respectively. (Action: Director, Education).

## <u>SKNAUIAC</u> -6/2018-1/5

To consider the proposals received from Dean & Faculty Chairman, SKNCOA, Jobner

- 1. To consider issue of two question papers of one course run in either or same campus. It was resolved to approve that those courses which are run in either campuses, two papers will be prepared by the concerned teacher of either campus for maintaining quality standard of the paper. If the course is run in one campus then two set of question paper will be set up the concerned teacher. Among the two sets of papers one paper will be picked up by Faculty Chairman. (Action: Dean & Faculty Chairman).
- 2. To include the course of Library & Information Services in PG programme of SKNAU, Jobner. It was resolved that keeping in view implementation of report of 3' Dcans' Committee, the agenda is deferred. (Action: Dean & Faculty Chairman).

## SKNAU/AC -6/2018-1/6

To consider the proposals received from Controller of Examinations,

- SKNAU, Johner

  1. To consider enhancement of examination for from
- 1. To consider enhancement of examination fee from all UG students from 1st semester 201819. It was resolve to approve, which will be implemented for new entrants (students) from new academic session 2018-19 of B.Sc. (Ag.) and the fee may be increased from Rs. 1100 to Rs. 1300 (Action: Controller of Examination).
- 5. To confirm the order no. F (OS)/SKNCABM/2017/203 dated 19.09.2017. The house has discussed this Order dated 19.09.2017 granting permission by the Hon'ble Vice Chancellor to engage willing Ph.D. students of SKNCOA, Jobner to teach a few UG Classes as outsource faculty at SKN College of Agri- Business Management, Jobner without getting their research work hampered. Since, this permission was accorded for the time being. Thus, this arrangement may not be continued, however, in exigent condition, fresh permission need to be taken (Action: Dean, ABM).
- **6.** To confirm the Order no: F ( )/SS/DEAN-SKNCOA/2017-18/3373- dated .09.02.2018. It was resolved to confirm. Supplementary Agenda (put up by Director Education) To revise the eligibility in Score Card for Assistant Professor moving from Stage 1 to Stage II under CAS. As per UGC guidelines one year relaxation is given to candidates having professional degree. After

SVNAU/AC	discussion at length, the House resolved to approve the agenda for its submission before the Board of Management along with opinion to be received from either Rajasthan Technical University or from AICTE for authentication of document that the MCA course is professional course approved by theUniversity Grants Commission (UGC)/All India Council of Technical Education (AICTE) or any statutory body. As per eligibility in UGC for professional degree, relaxation of one year is mentioned. So if MCAis professional course, one year relaxation may be granted
SKNAU/AC -7/2019-1/2	Action taken report of the 5th meeting of Academic Council held on 27th February, 2017: It was resolved to approve and confirm.
SKNAU/AC -7/2019-1/3	Action taken report of the 6th meeting of Academic Council held on 28th April, 2018: It was resolved to approve and confirm. It was further resolved to approve the bifurcation made by the University of the Sanctioned posts for College of Agriculture, Navgaon (Alwar) as per requirement of faculty vide Office Order No. F.()/Estt/Gr.I/SKNAU/3322 dated 21.2.2019.
SKNAU/AC -7/2019-1/4	1. To confirm the following notifications issued by the Director Education for accreditation toteachers for Master/Ph.D teaching/guiding programme.
	i) F6(26)/Dir.Edu./SKNAU/Accred/2018/6780-681 dated 30.6.2018
	ii) F6(26)/Dir.Edu./SKNAU/Accred/2018/7002-10 dated 09.8.2018
	iii) F6(26)/Dir.Edu./SKNAU/Accred/2018/7284-7306dated:14.11.2018
	iv) F6(26)/Dir.Edu./SKNAU/Accred/2018/7492-7508 dated 28.12.2018
	It was resolved to approve and confirm the Notifications issued by th Director, Education.
	1. To complete the entire evaluation process of Ph.D. thesis in six months. It was resolved to approve. (Action: Director, Education)
	2. To appoint third examiner to conduct the viva-voce examination in case both the examiners refuse to come for conducting post-thesis viva-voce. It was resolved to approve. (Action: Director, Education)
	3. To request the examiner to submit the assessment report of thesis within three months. It was resolved to approve. (Action: Director, Education)
	4. To appoint another examiner in case assessment report of thesis is not received in three months. It was resolved to approve. (Action: Director, Education)
	5. To allow a relaxation of two years to women and persons with disability.
	It was resolved to approve pursuant to the directives of Raj Bhawan
	that the women candidates and persons with disability (more than

- 40% disability) enrolled in Ph.D. programme be allowed a relaxation of two years in maximum period for thesis submission. (Action: Director, Education)
- 6. To allow maternity leave/child care leave once in entire duration for up to 240 days towomen candidates. It was resolved to approve pursuant to the directives of Raj Bhawan that the womencandidates are allowed maternity leave/child care leave once in entire duration of her research work in Ph.D. programme for upto 240 days in addition to normal period for thesis submission. It was further resolved that if there exists some controversy to that of the Rules of the State Govt., necessary clarification is required to be sought from the Raj Bhawan. (Action: Director, Education)
- 7. To give permission/authority to Director Education for appointing the external examiner for evaluating M.Sc. (Ag.) thesis. It was resolved to approve.(Action: Director, Education)
- 8. To amend Regulation 17.2.1 of Post Graduate Studies Regulations, 2014-15. It was resolved to approve that for consideration of a thesis of Ph.D. student for further process, one quality paper from his thesis is required to be written by the student, which should be accepted/published in NAAS rated journal. It was further resolved to approve that a research scholar is permitted to submit thesis only if he/she has presented one paper 1st author National/International Conference during his tenure of Ph.D. programme. (Action: Director, Education).
- 9. To implement plagiarism report for Ph.D. thesis.It was resolved to constitute a Committee for suggesting procedure and modalities with regard to plagiarism consisting of: 7890- 98-93.3.19
- (1) University Librarian as Convener
- (2) Three Senior-most Professors and
- (3) Incharge, CIMCA as Members.

(Action: Director, Education)

- 10. To appoint University Head as campus Head also. It was resolved to approve to appoint University Head as Campus Head seniority-wise. (Action: Registrar)
- 11. To approve an updated list of subject experts to conductcomprehensive/preliminary examinations and evaluation of M.Sc. (Ag.)/Ph.D. theses.It was resolved to approve the list. (Action: Director, Education)
- 12. To start best thesis award in the Faculty of Agriculture. It was resolved to

approve with the directions that the prize cash amount be equivalent with the UGC/CAR norms and for preparation of guidelines for grant of award, a committee is constituted, which consists of:

- (1) Dean and Faculty Chairman, SKNCOA as Convener
- (2) Dr. A.K. Gupta, Dean, SKNCABM and
- (3) Dr. R. Paliwal, Director (HRD) as Members. It onder (Action: Registrar/Director, Education)
- 13. To consider the completion of residential requirement for Ph.D. of Mr. Ram Kunwar, Asstt. Prof. in Plant Breeding & Genetics.1416 94.3.19. It was resolved to approve. (Action: Director, Education)
- 14. To consider the proposal for conducting Ph.D. research-work at SKNCOA, Johner to Sh. B.R. Meena. It was resolved to approve that the permission may be accorded with a condition that the work assigned to him will not be hampered and his Ph.D. research work be undertaken in extra time. (Action: Director, Education)
- 15. To approve the course programme of M.S.c (Ag) in Nematology.It was resolved to approve the course programme submitted by the Committee. (Action: Director, Education)
- 16. To start new course programme for M.Sc. (Ag.) in Seed Science and Technology in the University. It was resolved to direct that for creation of Department of Seed Science and Technology, the proposals may be invited and for creation of posts, necessary proposal be submitted to the State Govt. either for creation of need based new posts or alternatively the proposal be 'submitted for creation of need based posts based on redeployment of posts. The similar action may be initiated for Agro-meteorology also. (Action: Registrar)

#### SKNAU/AC -7/2019-1/5

- 1. To approve the guidelines for Ph.D. admission to in-service candidates of the University. It was resolved to approve that the University staff be permitted for seeking admission in Ph.D. if completed 05 years of service and the admission be given as against one supernumerary seat in each department having regard to his length of service (seniority). It was further directed that the permission be granted keeping in view of availability of staff in the Unit and follow the rules framed in this regard by the parental University (SKRAU, Bikaner) till framing rules by SKNAU, Jobner. It was also resolved that the decision will be implemented from the next academic session i.e.. 2019-2020. It was also decided that the candidate has to appear in the Ph.D. Entrance Examination. (Action: Registrar)
  - 1. To accord special permission of 7 months study leave to Sh. M.R. Yadav,

	Asstt. Prof. (Agronomy) for completing his Ph.D. degree from NDRI, Karnal. It was resolved to turn down the agenda.
SKNAU/AC -7/2019-1/6	<ol> <li>Relaxation in the attendance to the student of UG &amp; PG both of SKNAU, Jobner on medical ground. It was resolved to turn down the agend</li> <li>To consider the redistribution of B.Sc. (Hons.) Ag. courses. It was resolved to direct that for consideration of this agenda, complete exercise be made. Agenda may be resubmitted in next meeting of Academic Council after complete exercise.(Action :Dean &amp; Faculty Chairman)</li> </ol>
	1. To consider course No. SSAC-121 (Ag. Microbiology) to be offered by Plant Pathology Department. It was resolved to direct that the proposal for inclusion of course be submitted through Committee of Courses. (Action: Dean & Faculty Chairman)
	2. To consider the additional fees/amount of fees received against the payment seats of M.Sc. and Ph.D. students to divert to concerned department. It was resolved to direct that the Dean and Faculty Chairman with Comptroller nominee will suggest the quantum of fees to be allotted to the concerned departments of SKNCOA, Johner and RARI, Durgapura as per requirement of the departments/RARI. (Action: Dean & FC and Comptroller)
SKNAU/AC -7/2019-1/7	1. To provide independent registration facility to the Ph.D. & M.Sc. (Ag) students at RARI, Durgapura. It was resolved to defer the proposed agenda.
	2. To strengthen laboratory facilities and formation of smart class rooms in individual division and to provide CeRA facility at RARI, Durgapura. It was resolved to direct the University Librarian to extend CeRA facility to RARI.(Action: University Librarian)
SKNAU/AC -7/2019-1/8	consider proposals received from the University Librarian:  1. To change the name of the Library. It was resolved to defer the agenda. Proposals may be sent to the State Govt. through Registrar of the University for Central Library Building. (Action: University Librarian/Registrar)
	<ol> <li>To change the paper pattern of the Course Human Values &amp; Ethics (HVE-111). It was resolved to defer the proposed agenda</li> <li>Waiving of the rental charges for Book Bank from general category of the students also. It was resolved to approve that Rs. 10/- per book as flat</li> </ol>
	rate may be charged from the general category students. The Council

	directed all the Deans constituent Colleges that their College should have one book bank for the students.
SKNAU/AC -7/2019-1/9	1. To start Post Graduate Programme-in the major disciplines at COA, Lalsot. It was resolved to turn down the proposed agenda keeping in view that as per ICAR norms, the required minimum faculty is not available at COA, Lalsot.
SKNAU/AC -7/2019-1/10	<ol> <li>To consider B.Sc. (Ag.) and MBA (Agri-Business Management) degree as a Post Graduate degree in Agriculture. It was resolved to approve the proposed agenda with directions that the necessary notification be issued. (Action: Registrar)</li> <li>To consider B.Sc. (Ag) and MBA (Agri-Business Management) degreeholders eligible for trans-disciplinary vertical mobil. It was resolved to direct that the approved proposal may be submitted to</li> </ol>
	<ul> <li>the State Govt. (Action: Dean, SKNCABM)</li> <li>3. To consider reduction in intake capacity of B.Sc. (Ag) and MBA (ABM) from 120 to 60. It was resolved to approve but seats will be reduced on acceptance from State Govt. (Action: Dean, SKNCABM)</li> <li>4. To decide purchase of vehicle for ABM College from the savings of</li> </ul>
	college. It was resolved to direct that the proposal be submitted to the State Govt. for purchase of vehicle through Comptroller out of the funds towards saving of College. (Action: Dean, SKNCABM/Comptroller)  5. To consider change in the nomenclature of the degree of five year integrated programme. It was resolved to approve to change the nomenclature of the degree of five year integrated programme as "B.Sc. (Hons.) Ag. & MBA (ABM)". (Action: Dean, SKNCABM/COE/Registrar)
SKNAU/AC -7/2019-1/11	<ol> <li>To open Agro-forestry and Forestry Department at University level. It was resolved to direct that the Status Report is required to be prepared by the Dean and FC keeping in view of Rajasthan and Indian scenario, which will be submitted to the State Govt. for grant of sanction. (Action: Dean &amp; FC/Registrar) Table Agenda</li> <li>Following Table Agenda items were put up by the Members of Academic Council with the permission of the Chair:</li> <li>Agenda was put up by the Dean and Faculty Chairman regarding approval of syllabus of NSO as non-gradual course. After discussion, it was</li> </ol>

- and FC to re-submit the agenda in next meeting of Academic Council after framing detailed rules.(Action: Dean & FC)
- 1. Controller of Examinations has raised table agenda with regard to printing of degree in Hindi version also. After discussion, the house resolved to approve that the degree should be printed in Hindi version also and cover page of the thesis be printed in Hindi.(Action: COE)

All the regulations will be implemented from the next academic session i.e.2019-20

#### SKNAU/AC -8/2019-11/1-1

To consider and approve the list of candidates who have completed all the requirements for their Bachelor's/Master's/Doctoral Degrees from SKNAU, Jobper as per list enclosed.

It was resolved to consider and approve the candidates (enlisted in attached list with Agenda) who had completed all the requirements for their Bachelor's/Master's/Doctoral Degrees from Sri Karan Narendra Agriculture University, Johner as per list submitted by the Controller of Examination, SKNAU, Johner. The College-wise and Degree-wise details aregiven as under:

(A) Degree of B.Sc. (Honours) Agriculture	
S. No. Name of College	No. of Students
S.K.N. College of Agriculture, Johner	249
College of Agriculture, Lalsot (Dausa)	110
College of Agriculture, Fatehpur-Shekhawati (Sikar)	63
College of Agriculture, Kumher-Bhartpur	64
BBD Govt. PG College, Chimanpura-Shahpura (Jaipur)	139
Govt. College, Uniara (Tonk)	82
Dayanand College, Ajmer	146
M.B. College of Agriculture, Tonk	70
Lt. Mool Chand Meena Agriculture College, Lalsot	61

(B) Degree of M.Sc. (Ag.)	
	No. of

	Students
1. S.K.N. College of Agriculture, Jobner	209
(C) Degree of Ph.D	
	No. of Students
S.K.N. College of Agriculture, Jobner	54
Total Number of Degrees	
Under-graduate	984
Post-graduate	209
Ph.D.	54
Total No. of Students to be awarded degree	1247

SKNAU/AC -8/2019-11/1-2

### To consider and approve the matter regarding award of Gold Medal to the Under Graduate and Post Graduate students as per list enclosed.

It was resolved to consider and approve Gold Medals (enlisted in attached list of Agenda) to be awarded to the Under-Graduate and Post-Graduate students as per list submitted by the Controller of Examination. Session wise details of Gold Medals are given as under:

Programme	No. of Gold Medals (Year wise)			No. of Gold Medal
	2016	2017	2018	
Under-Graduate	01	01	01	03
Post-Graduate	11	09	08	28
Total	12	10	09	31

The Hon'ble Vice Chancellor and Chairman of the Academic Council has raised an agenda before the Council having regard to number of representations for equivalence and recognition of MSC ICT Degree awarded by the University to the students passed out during the Academic Session 2016-17 and also the equivalence and recognition of 05 years integrated degree programme of SKN College of Agri-Business Management Programme being run in the University. After detailed discussions and deliberations, it was unanimously resolved to constitute a Committee of the following to suggest further course of action before the appropriate authority for equivalence and recognition of both the Courses:

- 1.Dr. B.K. Sharma, Director Education Convener
- 2. Convener Dr. A.K. Gupta, Dean, SKNCOABM Member
- 3.Dr. S. Mukherjee, OSD & Controller of Examination Member

CHANANIA	The Committee is required to submit its report within the shortest possible time and to submit the same before the appropriate authority of the University. Dr. J.S. Sandhu, Hon'ble Vice-Chancellor and Chairman during his opening remark, stressed upon strengthening MoU with International/National Organizations and State AUs. The Hon'ble Vice-Chancellor suggested that Head of the Departments should visit at different national organizations. All faculty members should visit library to look the deficiency of Books and Journals. He also advised to ensure parthenium and plastic free campus. Agenda Item No.:
<u>SKNAU/AC</u> -9/2019- <u>III/1</u>	To confirm the proceedings of the 7th meeting of Academic council held on 21st Feb, 2019. <b>It was resolved to confirm and approve.</b>
SKNAU/AC -9/2019- III/2	Action taken report of the 7th meeting of Academic Council held on 21st Feb, 2019. It was resolved to confirm and approve.
SKNAU/AC -9/2019- III/3	To confirm the proceedings of the 8th (Special) meeting of Academic Council held on 9th July, 2019. <b>It was resolved to confirm and approve.</b>
SKNAU/AC -9/2019-III/4	Action taken report of the 8th (Special) meeting of Academic Council held on 9th July, 2019. It was resolved to confirm and approve.
SKNAU/AC -9/2019- III/5.	1. To confirm the following notifications issued by the Director, Education for accreditation to teachers for Master/Ph.D. teaching /guiding. i. F6(26/1)/DOE/SKNAU/Accred/2019/8005-28 dated 04.5.2019 ii. F6(26/1)/DOE/SKNAU/Accred/2019/8063-70 dated 20.5.2019 iii. F6(26/1)/DOE/SKNAU/Accred/2019/8693-8723 dated 01.10.2019 iv. F6(26/1)/DOE/SKNAU/Accred/2019/8828-53 dated 08.11.2019 It was resolved to approve the Notifications issued by the Director,
	<ol> <li>To confirm the proposal of Director, Education approved by the Hon'ble Vice-Chancellor, SKNAU, Jobner regarding evaluation of M.Sc. (Ag.)/ Ph.D. synopsis from external examiner in the departments where no professor is on roll of SKNAU, Jobner with remuneration of Rs. 600/- and Rs. 800/- with postage charges (if any) for evaluation of synopsis of M.Sc. (Ag) and Ph.D. respectively. It was resolved to approve.(Action: Director, Education)</li> <li>To update and publish the Post-Graduate Studies Regulation, 2014-15. It was resolved to approve by constituting a Committee for updation of PG Studies Regulation, 2014-15. (Action: Director, Education)</li> </ol>

- 4. To issue a show cause notice to the major advisor of a student if his/her thesis/synopsis hasbeen rejected/revision by external examiner(s). It was resolved to direct that in case of technical mistakes in the thesis, the concerned Major Advisor be issued letter of warning in consultation with the Hon'ble Vice Chancellor and in case, the thesis is rejected, such Major Advisor be de-accredited forthwith. To avoid such incidence the Advisory Committee be furnished a hard copy of the thesis in advance before final submission. It was further, directed that the Ph.D. students will present result of his/her research work before final submission for evaluation before Director of Education, SKNAU, Jobner and the Committee constituted for monitoring of research work of PG students. This will come in force with effect from January, 2020. (Action: Director, Education)
- 5. To approve incentive to become life member of scientific societies. It was resolved to approve that 50% of membership fee or Rs. 10,000/-whichever is less should be borne by the University and remaining amount will be borne by the respective scientist, subjected to the approval of BOM. This reimbursement will be made one time Membership of any of the Scientific Societies. (Action: Comptroller)
- 6. Compilation of the list of honorary faculty members. It was resolved to approve with the further, approval that the honorarium of Faculty Members be made at par with the already approved honorarium for the Members of the BOM (Action: Director, Education & Comptroller)
- 7. To start dual Degree Programme. It was resolved to constitute a committee to decide the procedure and modalities for dual degree programme. (Action: Director, Education)
- 8. To approve Anti Plagiarism Policy for its implementation. It was resolved to approve the Anti-Plagiarism Policy. (Action: Director, Education)

#### SKNAU/AC -9/2019-III/6

To relax in the condition of five years of regular continuous services for teachers/officers in SKNAU, Johner for doing Ph.D. under rules of study leave of parental university. It was resolved to defer the proposal.

#### <u>SKNAU/AC</u> -9/2019-111/7

To create Animal Unit at all constituent colleges of Agriculture. It was resolved with the directions that the Unit may be started at the constituent colleges, where faculty of LPM is available and at other constituent Colleges where faculty of LPM is not available, efforts should be made by the respective Dean for obtaining sanction for faculty of LPM (Action: Dean & Faculty Chairman and All the Deans of constituent Colleges)

SKNAU/AC -9/2019- 111/8	1. Agenda submitted by the Dean & Faculty Chairman to revise the honorarium of the staff involved in UG & PG examinations of the University. It was resolved that honorarium pertaining to non-teaching staff members only for UG & PG examinations be increased as proposed subject to approval of the BOM. (Action: Comptroller)  2. Agenda submitted by the Director, Education to confirm the Order issued by the Registrarregarding appointment of co-opted members of the Academic Council. It was resolved to confirm the order.  The meeting ended with a vote of thanks to the chair.	
SKNAU/AC -10/2019- IV/1	To confirm the proceedings of the 9th meeting of Academic council held or 18th Nov, 2019. It was resolved to confirm and approve.	
SKNAU/AC -10/2019- IV/2	Action taken report of the 9th meeting of Academic Council held on 18th Nov, 2019. It was resolved to confirm and approve.	
SKNAU/AC -10/2019- IV/3	<ol> <li>To permit the Ph.D. students for participation in conference/seminar/ training programmerelated to their subject/research area. It was resolved that student may be allowed for the same on the recommendation of major advisor with the consent of the HoD of the respective department and approved by the Dean/Director without any financial liability on the part of the University.(Action: Director, Education)</li> <li>To decide regulation to appoint Head of the Department. It was resolved that present procedure and term (Two Years) may be continue, however, a committee of the following may be constituted to work out</li> </ol>	
	the new rules and regulations for appointment of the campus head of the departments and their approval from the competent authorities.	
	1) Dean & Faculty Chairman, SKNCOA, Jobner Convenor	
	2) Director Education, SKNAU, Johner Member	
	3) Director, RARI, Durgapura Member	
	4) Dean, CoA, Bharatpur Member	
	<ul> <li>(Action: Dean and Faculty Chairman, SKNCOA, Jobner)</li> <li>3. To change in practical examination pattern in M.Sc. (Ag). It was resolved with the directives that five marks of attendancewillbe awarded only in UG programme. (Action: Dean and Faculty Chairman, )</li> </ul>	
SKNAU/AC -11/2020-1/1	To confirm the proceedings of the 10th meeting of Academic council held or 24"Dec, 2019. It was resolved to confirm and approve.	
SKNAU/AC -11/2020-1/2	Action taken report of the 7thand 9th meeting of Academic Council held or 21st Feb, 2019 and 18"Nov, 2019 respectively. It was resolved to confirm and	

	approve.
SKNAU/AC -11/2020-1/3	Action taken report of the 10th meeting of Academic Council held on 24th Dec, 2019. It was resolved to confirm and approve.
SKNAU/AC -11/2020-1/4	1. To confirm the proposal of Director, Education approved by the Hon'ble Vice-Chancellor, SKNAU, Jobner regarding ONLINE oral examination of P.G. degree programmes viz. Comprehensive, Preliminary, Thesis vice-voce including evaluation of P.G. theses from external examiners till the lockdown situation implemented due to Covid-19. It was resolved to approve and confirm with the condition that it is applicable for the current academic session i.e. 2019-20 or it should be continue till the COVID-19 pandemic situations.
	<ol> <li>To decide the rate of honorarium of the external examiner of ONLINE oral examination atPG level including thesis Viva-voce. It was resolved to approve that the honorarium of external examiners for ONLINE oral examinations at PG level viz. comprehensive/preliminary/thesis viva-voce/thesis evaluation should be at par as per the rate of honorarium of offline examinations/thesis evaluation.(Action: Director Education)</li> <li>To revise the rate of honorarium of external examiners of oral comprehensive/preliminary/thesis viva-voce examinations. It was resolved with the direction that put the agenda again in the next academic council for approval with the comparative statement of rate of honorarium of the said purpose of other SAUs/ICAR Institutes/AUs of other states like PAU, HAU etc.(Action: Director</li> </ol>
SKNAU/AC -11/2020-1/5	1. To approve the performa of APAR/ACR for teaching/non-teaching staff of the SKNAU, Johner. It was resolved to approve that dully filled APAR/ACR of each teacher/employee of the SKNAU, Johner should be submitted every year by 31" July. Further, it was decided to award appreciation letter to the employee who performed excellent services during the respective year in his/her cadre and for non-performer warning to be issued. (Action: Registrar)  2. To approve the qualification of various posts of Teaching and Nonteaching cadressuggested by the committee constituted for the same. It was resolved and approved with the directives that desirable qualification of Dean/Directors should be deleted.
	(Action: Registrar)

	3. To implement new guidelines for awarding University Merit Scholarships to PG students. It was resolved to approve merit scholarships to be given as per grouping done for Gold Medal. Number and amount of merit scholarships will be decided with approval of the Hon'ble Vice-Chancellor. (Action: Director Education)		
SKNAU/AC -11/2020-1/6	1 te2. To commin the following notification/office order issued by the Dean C		
	It was resolved to approve and confirm the notification/order issued by the Dean & Faculty Chairman.		
	<ol> <li>To increase 10% seats in UG programme to fulfill the conditions of the new reservation policy of GOR for EWS candidates and to withdraw preventing direct admission on merit basis in UG programme in SKNAU, Jobner. It was resolved to approve that 10% seats increased in each UG and PG programmes as per the new reservation policy of GOR for EWS candidates and withdraw direct admission on the basis of merit in SKNAU, Jobner with the academic session 2020-21 as per the decision of all SAUs of Rajasthan.(Action: Dean &amp; Faculty Chairman)</li> <li>To approve bifurcation of 60 seats of UG programme B.Sc. (Hons.) Ag. at COA, Kishangargh Bas. It was resolved to approve that bifurcation of</li> </ol>		
	60 seats of UG progrmme shall besimilar as other constituent college of the SKNAU, Johner.		
SKNAU/AC -11/2020-1/7	1. To change the homehelature of OG courses. It was resolved to approve		
	2. To refund programme fee. It was resolved to approve that course programme fee charged from the students admitted on payment seats in all constituent colleges of SKNAU, Johner should be refund if a student wishes to leave the programme in I semester before the last round of admission. (Action: Dean & Faculty Chairman)		
SKNAU/AC -11/2020-1/8	1. To confirm the proposal of Dean, SKNABM duly approved by the Hon'ble Vice-Chancellor, SKNAU, Jobner regarding allowing of two elective course from other groups to B.Sc. (Hons.) Ag. students of SKNCABM, Jobner. It was resolved to approved and confirm the proposal with the directives to issue the post facto		

	notification.(Action: Controller of Examinations)	
Table Agenda	Agenda submitted by: The University Head, Deptt. of Agronomy with the permission of the chair to include non gradial courses in the UG and PG Programme to improve the learning skill. It was turn down with the the directives to detail discussion in the faculty and further approval of the same in the BOS.(Action: Dean & Faculty Chairman)	

#### 6.6.2.2. Innovation and Best Practices:

The University is following the best practices in teaching research and extension. For teaching, modern classrooms are available at constituent colleges of the University. In the Covid 19 period, online classes commenced through different online platforms like Googlee meet, Zoom, Webex etc. Continuous efforts have been made to create effective teaching learning experience. Study materials in the form of e-notes are being continuously circulated among students through WhatsApp, google classrooms to UG, PG and Ph.D. students. Beside this students are sent for educational tours, exposure visit and industrial outreach programme in B.Sc. Ag. Part IV under RAWE. Webinars, Quiz, guest lectures are also being organized to staff and students. Special coaching classes for competitive exams like NET, JRF, SRF, mock interviews, personality and language development are being organized to increase the academic ambience of students. National Agriculture Higher Education Project (NAHEP) entitled "Institutional development Plan on strengthening Academic ambience for Quality and Skill Oriented Undergraduate Education" is running at SKNAU, Jobner. Apart from this a Career Development Centre (CDC) has also been instituted under NAHEP with the focus on improving the employability of students by enabling environment for their career development in different spheres. In addition to this, 40 certificate courses on relevant and emerging areas in agriculture have been developed under NAHEP considering the changing pattern of agriculture education. The University is also actively involved in innovations useful in agriculture by developing the new varieties and technologies. The University has developed/released about 156 varieties of different crops suitable for different agroclimatic zones. This year a new variety of pearlmillet RHB-238 has been developed which is drought tolerant and resistant to downy mildew disease. The University has also supported the development of improved crop cultivars and appropriate crop production-protection technologies along with promoting the basic/ strategic/ applied research in cereals, millets, pulses, oilseeds and seed spices. In order to enhance linkage and collaboration in research and teaching, 14 MoU (Memorandum of Understanding) have been signed with the institutes of excellence till date. The Post -Graduate student has allowed to include one additional member in his/her advisory committee from any National/International Institute/University as mentor advisor. It will help to enhance the quality of PG research.

#### 6.6.2.3. Library:

The university central library was started in 2013 with existing college library building in Jobner. The primary mission of the central library is to provide adequate support for teaching, research and extension programs by maximizing digital information resources to teacher's, scientists, students, researchers, farmers, trainees, agricultural officers and other users of different units of SKNAU. The vision of University central Library is to make Digital Resource Learning Center for all constituent's colleges, Institute and other units of the university. The objectives behind university central library is to create a digital learning environment adhering with teaching, research and extension programs of the University along with comprehensive collections of conventional documents and digital learning environment which includes, modern ICT infrastructure facilities well equipped with RFID system, CCTV, UPS, AC, Xerox Machine, Dehumidifiers, Printers and Computers providing Internet Surfing with 24x7 hours high speed Wi-Fi Internet Laptop zone facility in the library, campus & hostels. Online Public Access Catalog (Webopac, CeRa online Journals and, online theses, lifetime e- books access and Digital database services.



The Book Bank facility is available to all the students and staff. The present library provides various services which includes Reference/ Referral services, User awareness / Orientation services, Newspapers, Internet-CDROM services, Book Bank , Circulation cum reading services, Reprographic services, Interlibrary Loan services, online journals /theses/ Webopac/. E journals / e -books facilities to 800 students, 60 faculty members, 100 supporting staff members.

#### Availability of Books and other reading material:

The library hascollections of 52940 books in Agriculture and Allied Sciences which includes (27117 -Books, 2400 -Theses, 6726- Bound Journals, 3200- Government Publications, 13343 -Book Bank Text books, and 154 -CD-ROMs. etc.) More than 57000 catalogue records of constituent college library have been digitized and uploaded on koha Webopac (<a href="http://14.139.51.40/">http://14.139.51.40/</a>) .The University Central Library has started Institutional Repository collections by uploading digitized materials on Krishikosh database (ICAR) to preserve, share and search the teaching, research and extension materials of SKNAU.

More than 2400 digitized materials (including Theses, Reports / Question Paper / Manual/Research Papers etc) have been uploaded on ICAR- Krishikosh Portal (under Instuitional Repositories) (https://krishikosh.egranth.ac.in/handle/1/84614) . Free / Open Access e- Journals (ICAR) is also

available to all constituent colleges of SKNAU, Jobner through web link (<a href="http://epubs.icar.org.in/Qejournal/">http://epubs.icar.org.in/Qejournal/</a>) .The other leading online central library resource services of university can accessed through web page -http://www.sknau.ac.in/en/student/resources/central-library)

#### **Library staff:**

Present library has University Librarian (Head ,Entomology cum Officer in charge of University Library, SKNAU, Jobner ) one Assistant Librarian ,one office clerk (on deputation) two peons(one lady) and one contractual labor.

#### **Library Committee:**

Library has well established committee consisting of three—senior Professors- University Librarian, Assistant Librarian(In charge library), Computer—Scientist—and Accounts officer—/clerk for procurements of items, books—through GeM / tenders—along with management of library system. Present library has adequate number of—text books; more than thirty thousand textbooks are available to all students and faculty members of university.—For research journals, CeRA facility (J Gate and Agri-state database) and open access e-journals have been provided by ICAR. Besides these, there several open access free e-journals—published society and other leading publishers are available to all students and teaching staff and 34 enrolled Indian print journals are also subscribed in the library to adhere additional requirements.

#### Subscription of research journals, periodicals, e-journals:

Central Library is regularly subscribing Sixteen General, Magazines/Periodicals and ten Newspaper for daily reading purpose for students.

#### **State of the art**software/ **programme**:

Library is fully automated with KOHA software with RFID system for both students and staff **Library** Timings:

Monday to Saturday from i.e. 9.00 AM to 6.00 PM

#### 6.6.2.4. Center for Excellence/Advance Studies/Centre for Advanced Faculty Training:

A Centre of Advanced Faculty Training (CAFT) on plant Biotechnology was sanctioned by ICAR, New Delhi in 2017. Under this programme, council support to organize training programmes of 21 days duration to teachers, research workers and specialist working in agriculture universities and ICAR institutes to update their knowledge and skill in order to keep abreast with the latest developments in area of plant biotechnology. The university has conducted 4 trainings on different aspects of biotechnology till date.

S.No	Title of the training programme	Year	Date
1.	Application of Molecula Markersfor Assessm Genetic Purity and Crop Diversity	ent of 2017-2018	01-21 <sup>st</sup> November, 2017
2.	Biotechnological Interventions to Enhance Crop Productivity underStress Conditions	2018-2019	July 25-Aug 14, 2018
3	Advances in Agricultural Techniques toward crop production: Towards climate Resilient Agricultur	•	10-30 Decembe 2018
4.	Physiological and Biotechnological Inte- Towards Climate Resilient Agriculture	rventions 2019-2020	03 –23 <sup>rd</sup> January 2020

#### 6.6.2.5. Incubation Center/Start up units/ Venture capital:

Imparting education with soft and entrepreneurial skills with a human touch is the vital need for enhancing the efficiency and productivity of students. A down to earth approach leading to environmental sustainability with assured livelihoods to the ever increasing population is the need of the hour for students. University is regularly mentoring and promoting the students for various start-ups. Hon'ble Governer of Rajasthan has desired to student start-up policy and University is also an active member of policy formulation. The policy will provide a plateform for incubating ideas to students along with providing funding and mentoring. This activity is being implemented as Experitial Learning Units (ELU) running in different collegesof the University. Apart from this, an Agribusiness Incubation Centre is also running in the University.SKN Agri-Business Incubator is an Agri-Innovation Hub and Agri-Business Incubation Centre supported by the Dept. of Agriculture and Farmers Welfare, Govt. of India, New Delhi under the RKVY-RAFTAAR scheme. It offers well equipped incubation space, technical and business mentoring, networking with agribusiness industries, scientific and information resources, conducive and supportive environment for agri startups and opportunities for availing grantin-aid though seed stage and pre seed stage funding. There are two programmes under the scheme.

#### 1. Agripreneurship Orientation Programme:

This is the pre seed stage funding programme with a grant-i-aid upto Rs. 5 lakhs. It is aimed at providing an opportunity to anyone with innovative ideas by imparting a two months training cum hands on internship with other cohorts. Objective of the program is to mentor potential agripreneurs by providing them the requisite practical, technical and business insights related training cum internship to make pursuing entrepreneurship related to innovative ideas an attractive career option among other available career choices.

#### 2. Startup Agri-Business Incubation Programme:

This is a seed stage funding programme with a provision of grant-in-aid upto Rs. 25 lakhs. It is aimed at providing financial assistance to potential startups having a minimum viable product (MVP) in agriculture and allied sectors. This support will help them to scale up their operations and attain

business viability at a faster pace. It will also help them to attract investments from other financial institutions for further scaling up their business operations.

The main aim of the programme is to increase the income of farmers and stop their migration towards other options by thrusting innovation and entrepreneurship and making agriculture a more attractive career option which could be achieved by these Agri-Business Incubators. Till date this centre has given grant of 2.46 Crore to 22 youths.

The University faculty encourages the UG students at the college level to develop entrepreneurship and innovativeness amongst the students through (READY), Rural Enterpreneurship Awareness Development Yogna, programme. This programme is underway at all the constituent colleges of SKNAU for final year students. This programme includes Rural Awareness Work Experience and Agro Industrial Attachment (RAWE& AIA) and experimental learning. Firstly oncampus training is given to the READY students by University faculties. Subsequently students attached to different villages for practical extension works on different KVKs, research stations and colleges for 21 days. Later on students are being attached to different Agro- Industries, where they can gain practical industrial experience. Under the National Agriculture Higher Education Project (NAHEP) being run in the University entrpreneurship component is being catered through trainings, exposure visits, seminars and guest lectures.

#### 6.6.2.6. Technology Enabled Learning Resources

SKN College of Agriculture, Jobner and CIMCA are two units which cater the needs of technology enable learning for teachers and other staff of the University. Sufficient infrastrucuture is available at SKN College of Agriculture, Jobner in the form of class room and seminar hall. A big size seminar cum meeting room also exists at Directorate of Extension with seating capacity of 60 persons. Feedback is taken from participants aftercompletion of the training. Suggestion from resource persons and participants are analysed and incorporated in the future capacity building programmes.

#### 6.6.2.7. Integrated Learning Systems (Experiential Learning):

Total four experiential learningunits exist in the University. These units are working at SKN college of Agriculture, Johner. All the units are in functional condition and students of RAWE/READY, M.Sc. and Ph.D are trained in these Units. (Refer SKNCOA Johner pg No.)

#### 6.6.2.8. Academic Industry Interface:

Research and Extension priorities of different zones are finalized by the ZERAC (Zonal Research and Extension Advisory Committee) of the respective agroclimati zone. Officials of State Agriculture Department, ICAR institutes and progressive farmers are major contributors in ZREAC meetings in finalizing the recommendations and future research and extension activities. The recommendations are included in the package of practices for the zone by the Department of Agriculture, GoR. These recommendations are further passed on to KVKs for disseminating to the farmers in the form of technologies. Research findings of ICAR projects and technologies are recommended at the National level. University also conducts PVT (Product Verification Trials) for industries. Research findings of Post Graduates students in the form of thesis are converted into digitalized form and can be accessed in the central Library. The University is carrying out projects funded from different agencies of GoI and GoR viz RKVY, ICAR, NABARD, ATMA as well as other organizations.

The student of B.Sc (Ag.)Hons. Pt. IV students are sent to the educational tour at different ICAR institutes and Agriculture Universities. In Student Ready Programme, after completion of oncampus training, the students are being attached to different agroindustries where they gain the practical industrial experience. The students are gaining training in commercialhorticulture, Mass production of bio agents and Bio pesticides, goat farming etc. Thus, SKNAU has a strong interface with the industry particularly seed industry; similarly SKNAU gives technical services to various industries in the field of testing of various insecticides, pesticides, fertilizers seeds, implements and machinery.

#### **6.2.9 National Ranking (ICAR/MHRD)**

The SKNAU is the newly established university after bifurcation of SKRAU, Bikaner. SKNAU, Jobner secured 59<sup>th</sup> rank for the year 2018 and 53<sup>rd</sup> in 2019 amongst all agricultural universities of India by ICAR.

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# **Chapter 3 Research Support**

#### 6.6.3. Research support

#### 6.6.3.1. Research Council

i) SKNAU research council is governed by Research Advisory Committee (RAC) at University level and Zonal Research Extension Advisory Committee (ZREAC) at zonal level to review the research work carried out on the basis of agro- climatic zones Experiments are decided at the national level in coordinated projects and feed back received from the line department. The composition of both the committees has been given in point 6.6.1.2. The first and second Research Council meetingwere conducted on 06.05.2014 and 27.10.2017, respectively. The next meeting is scheduled in 2021 as per the COVID guidelines. The composition of Zonal Research Extension Advisory Committee is given in table 8. The details of ZREAC meeting held in last five years have been summerised in table 9.

Table-3 . Zonal Research Extension Advisory Committee

1.	Zonal DirectorResearch	Chairman
2.	Joint Director (Extension) of the Zone	Member
3.	Deputy Directors, Assistant Directors, Agriculture Officers of line department, Government of Rajasthan	Member
4.	Scientists of Agriculture Resaerch Station	Member
5.	Officer/ In-charge of NGOs related to Agriculture fields	Member
6.	All head of ICAR institutes in jurisdiction area of University	Member

**Table-4**. Zonal Resaerch Extension Advisory Committee Meetings

Zone IIIA (Jaipur, Ajmer, Tonk)	Zone III B (Alwar, Bharatpur)	Zone II A ( Sikar)
Kharif Season		
March 21-22,2016	March 16-17,2016	March 18-19,2016
April 12-13, 2017	April 11-12, 2017	April06-07, 2017
April 09-10, 2018	April 05-06, 2018	April 03-04, 2018
June, 08,2020	June, 11,2020	June,10,2020
(Online mode)	(Online mode)	(Online mode)

Zone III A
(Jaipur, Ajmer, Tonk)

Rabi Season

Sept. 20-21,2016

Sept. 14-15,2016

Zone III A
(Sikar)

(Sikar)

Sept. 14-15, 2017	Sept. 11-12,2017	Sept. 06-07,2017
Aug. 23-24.2018	Aug. 30-31.2018	Aug. 28.2018
Sept. 16-17,2019	Sept.06,2019	Sept.06,2019

#### 6.6.3.2 Directorate of Research

Directorate of Research is the Nodal officer for executing the schemes funded by ICAR and other external agencies. The research strategies of the university are to develop economically viable and ecologically sustainable crop production technologies which can be conveniently adopted by the farmers. There are three Agro-Climatic Zones in the university service area viz.

- (i) Transitional Plain of the Inland drainage Zone-IIA-Sikar
- (ii) Semi Arid Eastern Plain Zone -IIIA- Jaipur, Ajmer, Tonk, Dausa
- (iii) Flood Prone Eastern Plains -IIIB- Alwar, Bharatpur, Dholpur

Presently, SKNAU is emphasizing on location specific and need based research works on technology generation and efforts are focused mainly to varietal development/development of scientific package and practices of major crops suitable to different agro-ecological situations, improvement of production technologies for horticultural crops, aromatic and medicinal plants with special reference to low cost practices of Post Harvest technology of arid and semi arid fruit crops, integrated nutrient management, integrated pest management, livestock production management practices.

The research is being carried out in all three agro climatic zones in service area of the university through 3 ARS and 4 ARSS:

- 1. Zone-II a- Agricultural Research Station, Fatehpur-Shekhawati, Sikar.
- 2. Zone-III a- Rajasthan Agricultural Research Institute (Erstwhile ARS), Durgapura, Jaipur.
- i. Agricultural Research Sub Station, Diggi, Tonk.
- ii. Agricultural Research Sub Station, Kotputli, Jaipur.
- iii. Agricultural Research Sub Station, Tabiji, Ajmer.
- 3. Zone-III b- Agricultural Research Station, Navgaon, Alwar
- i. Agricultural Research Sub Station, Kumher, Bharatpur

#### **Land Resources**

The university service area only one third of the geographical area is under cultivation which makes it necessary to make sown area more productive to meet the food and fodder security challenges of the area. The details of research farm have been given in table 12.

Table-5. The details of the research farm

Farm/units	Total area (ha)	Under cultivation (ha)	Under research (ha)
RARI, Durgapura	85.54	24.00	35.00
ARS, Fatehpur	150.00	50.00	45.00
ARS, Navgaon	47.00	35.00	06.00
ARSS Diggi	50.00	44.00	01.00
ARSS, Kotputali	35.00	28.00	02.00
ARSS Tabiji	18.50	14.00	01.50
ARSS, Kumher	60.00	53.35	02.00
Total	446.04	248.35	92.5

# **On going Research Programmes**

Research activities in the university are funded by the Government of India, Rajasthan Government, Indian Council of Agricultural Research and other agencies. Currently, there are 16 centres of AICRP/AINP funded by the ICAR to address issues related to crop improvement, natural resource management, production and production management of major crops, Agromet Advisory System, Agroforestry etc (Table 10, Table 11). Besides, there are several other research projects funded by external organizations like DAC, GOI, New Delhi; CRIDA, Hyderabad; NABARD, NBPGR, IFFCO, NHM, DST, DBT, RKVY. Private Sectors, etc are also involve to redress various agricultural constraints and ensure sustainable crop production in the state at various constituent units of the university.

Table-6. List of All India Coordinated Research Projects (AICRPs) and All India Network projects (AINPs) in the University

S. No.	Name of AICRPs/AINPs	Year of Start	Place
1	AICRP on Vegetable Crops	1970	Rajasthan Agricultural Research Institute, Durgapura, Jaipur
2	AICRP on Wheat & Barley	1971	Rajasthan Agricultural Research Institute, Durgapura, Jaipur
3	AICRP on Pearl millet	1976	Rajasthan Agricultural Research Institute, Durgapura, Jaipur
4	AICRP on Seed Spices	1979	SKN College of Agriculture, Johner
5	AICRP on Groundnut	1980	Rajasthan Agricultural Research Institute, Durgapura, Jaipur
6	AICRP on Seed Technology Research	1981	Rajasthan Agricultural Research Institute, Durgapura, Jaipur
7	AICRP on Agroforestry	1984	ARS, Fatehpur
8	AICRP on Arid Zone Fruits	1984	SKN College of Agriculture, Johner

9	AINP on Pesticide Residue	1984	Rajasthan Agricultural Research Institute,
			Durgapura, Jaipur
10	AINP on White Grub & Soil	1985	Rajasthan Agricultural Research Institute,
	Arthropod Pests		Durgapura, Jaipur
11	AINP on Arid Legumes	1986	Rajasthan Agricultural Research Institute,
			Durgapura, Jaipur
12	AICRP on Taramira	1988	SKN College of Agriculture, Johner
13	AICRP on Integrated Farming	1990	Rajasthan Agricultural Research Institute,
	System		Durgapura, Jaipur
14	AICRP on Chickpea	2001	Rajasthan Agricultural Research Institute,
			Durgapura, Jaipur
15	AICRP on MULLaRP	2001	Rajasthan Agricultural Research Institute,
			Durgapura, Jaipur
16	AINP on Onion & Garlic	2008	SKN College of Agriculture, Johner

Table-7 List of Projects sanctioned and running under RKVY

S.	Name of RKVY project	Project	Year of
No.		cost (in lakhs)	sanction
1	Establishment/Strengthening of seed processing and Storage Unit in Different Research Stations of SKNAU, Johner	272.25	2014-15
2	Development of infrastructural facilities and mechanization/modernization of farms at SKN College of Agriculture, SKNAU, Jobner	160.00	2014-15
3	Establishment of ICT enable Agriculture Technology Knowledge Centre (ATKC)	464.00	2014-15
4	Back yard poultry production for raising farm income of small, marginal and landless labours under semi arid conditions of Rajasthan	126.25	2014-15
5	To establish demonstration unit of Sirohi goat for raising farm income of small, marginal and landless labours under semiarid condition of Rajasthan	142.41	2014-15
6	Agriculture Technology and Management Quality Improvement Centre (ATMQIC)	407.24	2014-15
7	Establishment of Tissue culture set up for capacitybuilding development of regeneration protocol and micro propagation of arid zone crops	137.85	2014-15
8	Evaluative of indigenous seed treating material for managing disease of seed spices	63.74	2014-15
9	Validation and Post Harvest Technology for Dragon Fruit and Fig under semi and conditions of Rajasthan	90.15	2016-17
10	Management of Specific Weeds in Resilience with Climate Change in Major Crops of Semi Arid Ecosystem	65.34	2016-17
11	Micro irrigation management for conserving vulnerable water resource with higher crop water productivity	78.68	2016-17

12	Organic farming for sustainable crop production and better Health	260.89	2016-17
13	Augmentation of entrepreneurship for rural people through processing	56.01	2016-17
14	Conservation, improvement & production performance of Indigenous Milch Breeds of cows under semi-arid conditions of Rajasthan	414.10	2016-17
15	Mother Plant Nurseries for High Pedigree Planting Material forFruit Crops	72.80	2016-17
16	Eco-friendly management of pulse beetle, Callosobruchus chinensis on different pulse in Rajasthan	64.74	2016-17
17	To establish demonstration unit of Sirohi goat for raising income of small, marginal and landless labour under different KVKs of SKNAU, Jobner	143.43	2016-17
18	To establish demonstration unit of back yard poultry unit for raising farm income of small, marginal and landless labours under different KVKs of SKNAU, Johner	70.70	2016-17
19	Creation of training facilities for capacity building of scientists, students and rural youth	154.50	2016-17
20	Natural Resources and Waste Management by Establishing Vermi Compost Unit at Farmer Fields and RARI Durgapura, Jaipur	66.65	2016-17
21	Genetic Improvement and development of climate resilient Water melon and Musk melon for Rajasthan	35.92	2016-17
22	Modernization/ Mechanization of Agriculture Research Sub- Station, Diggi (Tonk) through creation of Infrastructural facilities.	70.70	2016-17
23	Farm development of Agriculture Research Sub-Station, Gonera (Kotputli)	121.72	2016-17
24	Establishment of Water Harvesting System to Maximize Use of Runoff Water for Strengthening of Research and Seed Production Programme at SKNCOA, Johner	86.00	2016-17
25	Establishment of Ornamental Fish Breeding and Basic Training Centre	89.75	2016-17
26	Development of infrastructure facilities for breeder seed production at different ARS & ARSS farms of the SKNAU, Johner	359.10	2016-17
27	Studies on Insect Pests and Natural Enemies Diversity in Major Semi-Arid Agro ecosystems of Rajasthan	50.76	2017-18
28	Estimation of area and production of existing cropping systems and optimization of water use through Remote Sensing and GIS.	190.30	2017-18
29	Establishment of Herbal Park and Post Harvest Processing in Medicinal and Aromatic Plants	20.26	2018-19
30	Standardization and Characterization of Liquid Organic Formulations	56.56	2020-21
31	Quality seed production of important vegetables under semi-arid conditions	121.72	2020-21

# Other ongoing ad-hoc research projects

- a. **Genetically enhanced micro-nutrient** A Harvest Plus Programme, funded by ICRISAT operational since 2012 is operative at RARI, Durgapura for improved human nutrition in the Western Africa region and India through nutrient enriched pearl millet grains.
- b. **Consortia for Research Platform (CRP)** ICAR sponsored "Biofortification in selected crops for nutritional security" is Operational at RARI, Durgapura since 2015-16.
- c. FASAL: IMD, Pune funded project on Forecasting agriculture output using space, agrometerological and land based observations (FASAL) is Operational Since 2014-15 at RARI, Durgapura and ARS, Fatehpur.
- d. **New research initiatives in pearl millet:** Thrust area-1: Development of disease resistant early maturing hybrids for north-western region of India, Thrust area-2: Genetic enhancement of pearl millet grain stover yield and feed quality by conventional and MAS targeting summer and saline agro-ecologies and Thrust area-3: Collection, evaluation, characterization and conservation of pearl millet landraces and farmers varieties, funded by ICAR operational since 2013.

### Agricultural Research Stations and Sub –Stations

1. **RARI, Jaipur (Zone IIIA):** Rajasthan Agriculture Research Institution (RARI) at Jaipur is the main research station of the Uuniversity well equipped with loboratory and field facilities. The institute has following functions.

# I Lead Functions

Development of varieties and technologies for yield maximization in irrigated wheat, barley, irrigated/rainfed chickpea, lentil, pea, green gram, cowpea, pearl millet, groundnut, cluster bean and vegetables etc.

#### **II Verification functions:**

The institute is also actively engaged in the verification functions of irrigated mustard, pigeon pea, management of salt affected soils and water, *in-situ* moisture conservation, testing and modification of farm implements, water management, forage crops and integrated pest management.

# **III Conduct research in the following areas:**

- Integrated farming system (IFS)
- Integrated nutrient management including organic farming, nutrient recycling andmicronutrient research
- Integrated Arthropods pests and termite management
- Pesticide residue analysis and minimization of pesticides in farm produce
- Seed technology research for quality seed production.
- Post harvest technology leading to processing, value addition, storage and marketability of farm produces
- Development of biological pest control modules for important crops of the state
- Management of nematode menace in cereals, pulses and vegetables

- Weed research leading to reduce weed strength in major crops.
- Protected cultivation of vegetables through greenhouse and poly houses.
- Production of disease free and high yielding varieties of seedling for the farmers and local peoples.
- Production of the floriculture i.e rose and chrysanthemum for the farmers.
- High quality fruit plants production for the farmers.
- Capacity building of the farmers for mushroom cultivation.
- Analysis of soil and water sample of farmers, researcher and other agencies.
- Strawberry and other plants production through tissue culture the farmers and ultimately enhancing the strawberry cultivation in Rajasthan.
- Articulation of Hi- Tech cultivation practices with modern irrigation techniques and tools.

# 2. ARS, Navgaon(Zone IIIB)

Agricultural Research Station, Navgaon is situated in the Alwar district of Rajasthan. The station has following functions.

#### **Lead Functions**

Rapeseed-Mustard (Irrigated and Rainfed), reclamation and management of problematic soils, crop cultivation with mineralized water.

#### **Verification Functions**

Pearl millet, pigeonpea, barley, wheat, clusterbean, chickpea, field pea, *in-situ* moisture conservation, testing and modification of farm implements.

### 3. ARS, Fatehpur(Zone IIA)

The station is conducting research on most of the crops, fruits, vegetables and other crops suitable for this region.

# **SKNAU Seed production System**

SKNAU undertakes seed production programme of improved varieties of several crops on a large scale. This is an important activity of the University as demand of improved seed by the farmers in the state is increasing linearly. The basic seed or nucleus seed, which is normally produced by the concerned breeder, is utilized for breeder seed production. Breeder seed production programmes are undertaken at university seed farms and at research stations/sub-stations. Besides, the SKNAU is also involved in the production and distribution of truthfully labelled (TFL) seed of improved varieties of various crops. All seed production programmes of SKNAU are coordinated by ADR (GP). Seed and Farm Advisory committee of SKNAU has the overall responsibility of providing directions and broad policy guidelines in the matters of seed production and functioning of the seed farms.

#### **Seed Production:**

The quality seed production programme of the university has a glorious history of having developed an array of improved crop varieties with enhanced productivity, quality, and adaptability to different Agro-climatic zones and in-built resistance to biotic and abiotic stresses. In past, the improved varieties of field and horticultural crops had led to phenomenal rise in production. Directorate of Research (DOR), SKNAU continues to strengthen the armour of farmers with improved varieties of different crops namely Wheat, Pearlmillet, Barley, Groundnut, Mustard, Taramira, Linseed, Sesamum, Gram and Spices. Seed was produced at different units of university. The seed has been supplied to different government agencies, NGOs and farmers. Availability of quality seed in such a huge quantity made a significant impact on productivity of different crops in the area. University significantly contributes towards enhancing the seed availability by producing Nucleus, Breeder and Certified seed in the state. Meticulous and systematic efforts have been made to enhance the seed production by the scientists of this university. Strengthening of nucleus, Breeder and Certified seed production programmme of improved varieties at the ResearchInstitute, ARS, ARSS has resulted in enhancing the seed replacement rate (SRR) of different crops in the state. This resulted in increase in the production and productivity of the crops and ultimately profitability to the farmers from agriculture. Major share of revenue of SKNAU, Jobner comes from production of Breeder & TFL seeds. Our research stations, sub stations and KVKs have contributed significantly inspite of facing scarcity of manpower as well as financial crunch. The seed production data of last five years has been summerised in table 13.

Table-8. Breeder and TFL seed production scenario of the University (2015-16 to 2020-21)

A. Breeder Seed Production

Year	Seed Produ	iction (qt.)	Total
	Kharif	Rabi	
2015-16	202.89	1475.72	1678.61
2016-17	460.38	2591.07	3051.45
2017-18	349.78	2165.86	2515.64
2018-19	317.34	3046.35	3363.69
2019-20	333.69	2602.89	2936.58
2020-21	382.70	-	382.7
Total	2046.78	11881.89	13928.67

#### **B.** TFL Seed Production

Year	Seed Produc	Seed Production (Qt.)	
	Kharif	Rabi	
2015-16	157.67	647.44	805.11
2016-17	229.67	854.28	1083.95
2017-18	240.24	962.62	1202.86

2018-19	277.28	1734.78	2012.06
2019-20	218.41	2463.65	2682.06
2020-21	450.00	-	450.00
Total	1573.27	6662.77	8236.04

# 6.6.3.3 Technology Developed and its Adoption

# A. Varieties developed (2015-16 to 2019-20).

The varieties released by the University of different Crops are covering 30-60 per cent of area of university jurisdiction. The following varieties have been developed by the University during the reporting year.

# Name of variety and characteristics

# **Photograph**

# Groundnut

1. Raj Mungfali 2 (RG 578): Release and notified in 2015 for the cultivation in sates of Odisha, West Bengal, Jarkhand and Manipur (Notification No. 268(E)/28.12015). Suitable for rainfed condtion, semi-spreading, medium pod size (53g/100-seed wt.), matures in 120 days with average kernel yield of 15.9 q/ha, 47% oil content, high shelling turn over (72%), resistance to late leaf spot, dry root rot, early leaf spot and rust diseases.



2. Raj Mungfali 3 (RG 559-3): Release and notified in 2016 for the cultivation of states of Rajasthan, Uttar Pradesh and Punjab for kharif season (Notification No. 3540(E)/22.11.2016). It is a Virginia bunch variety bred through a three way cross (TKG 19A x Kadiri-3) x TKG19A. It is a high yielding variety, matures in 124-128 days, High shelling-turn over (69%), extra-large kernels (65g/100 Kernels) and high oil content (49%) with average yields 35-40 Q/ha, semi spreading with extra bold kernels and suitable for export purposes, lower Incidences of Peanut Bud Necrosis, Late Leaf Spot and rust diseases than other varieties and tolerance against Spodoptera litura, leaf miner, leaf hopper and thrips.



# Chickpea

1. CSJ-515 (AMAN): The chickpea variety released in 2016 for normal and rainfed conditions of Rajasthan. Single podded, high yielding (15-20 & 20-25 q/ha), moderately resistant to dry root rot, BGM & wilt. Less affected by pod borer and root knot nematodes. Suitable for mechanical harvesting.

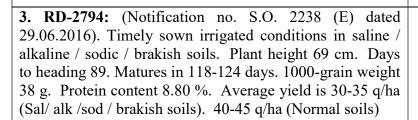


# **Barley**

**1. RD-2794:** Gazette notification no. S.O. 2238 (E) dated 29.06.20161.

Plant height is 69 cm. Days to heading is 89. Maturity days are 118-124. 1000-grain weight is 38 g. Protein content is 8.80 %. Average yield is 30-35 q/ha (Sal/ alk /sod / brakish soils) and 40-45 q/ha (Normal soils). Yield potential: 40-42 q/ha (Sal/ alk /sod / brakish soils) and 50- 55 q/ha (Normal soils)

**2. RD-2849:** (Notification no. S.O. 3540 (E) dated 22.11.2016). It is timely sown under irrigated conditions. Two rowed rust resistant variety suitable for malt. Plant height 91-95 cm. Days to heading 83. Matures in 128-133 days. 1000-grain weight 48 g. Average yield 50.9 q/ha. Yield potential 69.2 q/ha



- **4. RD-2899:** (Notification no. S.O. 6318 (E) dated 26.12.2018) released for Central Zone in 2018 for timely sown irrigated condition. Plant height is 81-91 cm. Days to heading 75. Matures in 110-120 days.110-130 tillers per metre. 1000-seed weight 45-49 grams. Grains bold and attractive in colour. High degree of resistance against yellow rust & brown rust diseases.
- **5. RD-2907:** (Notification no. S.O. 6318 (E) dated 26.12.2018). Timely sown irrigated conditions in saline and alkaline areas. Plant height is 84 90 cm. More tillers per plant. 1000-seed weight 42-45 grams. The grains are bold and attractive in colour.











Wheat

1. Raj 4238: Released for Late sown irrigated conditions in Central Zone. (Gazette notification no. S.O. 3540 (E) dated 22.11.2016) Plant height is 80 – 88 cm. More tillers per plant.1000-seed weight 35-44 grams. Resistance to all three rust (stem rust, yellow rust and brown rust). Protein content is 12.0-12.5 per cent. Matures in 110-120 days. High degree of resistance against rust disease as compared to prevailing varieties. Average yield 45.5 quintals per hectare while yield potential is up to 53.47.0 quintals per hectare.)



### Moong

1. RMG 975:It is a medium maturing. Resiatant to moderate resistant against YMV, Leaf crinkle, Web blight, Anthracnose root-knot nematode (*M. incognita*), whereas, it is tolerant to *Cercospora* leaf spot. It is moderately resistant against Leaf hopper, Pod borer, White fly and Thrips. Seed medium bold shining green which is preferred by the consumer over bold seed variety. Tolerant to moisture stress.



**2. MSJ 118:** Semi-erect, profuse branching, synchronous flowering, with medium maturity. Seed medium bold 4.1 g/100 seed) and dull (khaki) in colour. Resistant to moderately resistant against powdery mildew, leaf curl, YMV, leaf crinkle and anthracnose. Showed moderate resistance against root-knot nematode. Resistant to moderate resistant against major insect-pests. Perform well under moisture stress. Responsive to nodulation. Suitable for cultivation in both the season (*kharif* &spring).



#### Field Pea

**1. RFP 4:** It is resistant to moderate resistant against powdery mildew, rust, root-rot, root-knot nematode *M. javanica*. It showed negligible attack of leaf minor and pod borer. Perform well under moisture stress. Most suitable for irrigated as well as rain-fed conditions of the state. Flowers are white. Bears double as well as single pods.



### Lentil

1. RLG 5: It is moderately resistant against wilt and root-knot nematode. It showed resistance against pod borer and aphids at field level. Perform well under irrigated and rainfed condition. Most suitable for irrigated and rainfed conditions in the state. Erect with dark foliage. Foliage remains green up to maturity. In general double podded.



### Cluster bean

1. RGr-12-1 (Karan Guar-1): Released & Notified (No.S.01379 Dated 27<sup>th</sup> March 2018) for cultivation in Rajasthan having medium bold seeds (3.2 gm/100 seed), matures in 82-92 days with yield potential of 1058 kg/ha. It is moderately resistant to Bacterial blight, Alternaria leaf spot and Root rot complex, Tolerant to major insect and pests.



# Cowpea

**1. CPD-119 (Karan Chanwla 1):** Released and Notified (No.S.01379 Dated 27<sup>th</sup> March 2018) for cultivation in Rajasthan matures in 70 days having 100 seed weight of 9.11 gm, white large medium bold seed with black brown eye which is preferred by the consumer over bold seed variety. Resistant to moderate resistant against mosaic, necrosis, root rot and CLS.



### Pearl millet

1. RHB-223: (Notification no. S.O.1379 (E) 27-03-2018). RHB 223 is a dual purpose hybrid of pearl millet with high grain and stover yield. On an average its grain yield was 2969 Kg/ha which was 12 – 33 % higher than the yield of two checks RHB 177 (2643 kg/ha) and HHB 67 Improved (2237 kg/ha). RHB 223 also yielded high stover (55 q/ha) which was 20 - 25% higher than the RHB 177 (46 q/ha) and HHB-67 Improved (44 q/ha). RHB 223 matures, on an average in 71 days and flowers in 44 days. The hybrid attains height of 181 cm and panicle length 23 cm with thickness of 2.7 cm. Another distinctive advantage of RHB 223 is its high level of resistance to downy mildew, blast and resistant to smut; three most important diseases of pearl millet.



2. RHB-233: (Notification no. S.O.3220 (E) Dt.05-09-2019). The average grain yield of hybrid RHB-233 (3157) kg/ha) and dry fodder yield (73.7 g/ha). The hybrid RHB-233 matures in 80 days as compared to the checks HHB 67 Imp. (76 days) ICMH 356 (77 days), MPMH 17(78 days), Pratap (81 days), 86M86 (84 days) and Dhanshakti (77 days). Hybrid RHB-233 has higher degree of resistance to downy mildew and other diseases. Hybrid RHB-233 is high Zinc hybrid (50 ppm), has 28.2%, 21.9%, 42.8 %, 28.2%, 31.5 % and 4.2% higher grain iron content as compared to checks HHB 67 –Improved (39 ppm), ICMH 356 (41 ppm), MPMH 17(35 ppm), Pratap (39 ppm), 86M86 (38 ppm) and Dhanshakti (48 ppm). This hybrid will contribute to nutritional intervention programs as high-iron & zinc source food for reducing anemia and stunting in India.



RHB-234: (Notification no. S.O.3220 (E) Dt.05-09-2019). RHB-234 is a biofortified (high iron) dual purpose hybrid with high grain and dry fodder yield potential. The average grain yield of RHB-234 (3169 kg/ha)and dry fodder yield (71.0 q/ha). The hybrid RHB-234 matures in 81 days as compared to the checks HHB 67 (Improved) (76 days) ICMH 356 (77 days), MPMH 17(78 days), Pratap (81 days), 86M86 (84 days) and Dhanshakti (77 days). RHB-234 has higher degree of resistance to downy mildew and other diseases. RHB-234 is high Zinc hybrid (41 ppm), has 3.4%, 15.9 %, 3.4% and 6.8 % higher grain iron content as compared to checks HHB 67 - Improved (39 ppm), MPMH 17(35 ppm), Pratap (39 ppm) and 86M86 (38 ppm). The hybrid attains the height in the range of 176-193 cm, flowers in 49 days and matures in 81 days. It is high tillering (2.3 panicle/plant) and produces compact panicles of 24.0 cm length and 3.3 cm thickness, having grey colour globular shaped grains with 1000-seed weight of 9.3 g. This hybrid will contribute to nutritional intervention programs as high-iron & zinc source food for reducing anemia and stunting in India.



#### **Fennel**

1. RF-157: It is High yield potential fennel variety having erect and medium tall plant. Medium maturity type. More branches and umbels per plant. More umbellets and seeds per umbel. Long & Bold Seeds. Volatile oil yield is high. Yield: 2167 kg\ha



**2. RF-290**: The variety RF- 290 are high yield potential, erect and tall plants, medium maturity type, more branches and umbels per plant, more umbellets and seeds per umbel and long & bold seeds. Yield: 20.65 q/ha.



# Fenugreek

**1. RMt-354:** Medium tall, more branches & pods per plant, more seeds per pod, bolder seed, lesser incidence of downy mildew & powdery mildew. Higher yield potential Yield: 15.37q/ha



# Taramira

**1. RTM-1351 (Jobner Tara):** It is a high yielding (12-15 q/ha) and high oil containing (39.70 %) variety suitable for rainfed conditions. It is resistant to white rust and staghead, moderately resistant to downy and powdery mildew. It matures in 137-142 days.



**2. RTM-1355 (Jwala Tara):** High yielding (13-14 q/ha) and high oil containing (38.90%) variety suitable for rainfed conditions. It is moderately resistant to white rust, resistant to staghead, downy and powdery mildew and comparatively less attacked by aphids. It is also fairly tolerant to moisture stress and matures in 133-145 days.



1. Karan Lasoda (JL-07): The genotype JL-07 is perennial in nature and vigorous in growth habit. The bigger size leaves are green to dark green colour with a leaf length 17.20 cm, width 9.92 cm and leaf area 86.23 cm<sup>2</sup>. The ripen fruits are brown in colour and bigger in size. The most peculiar character is dual time fruiting (seasonal fruiting in April-May and off season fruiting in winters). The fruits are bigger in size (Fruit length 2.92 cm and diameter 2.64 cm), good luster with pulp content. The dried pulp is used in off season to prepare *pachkutta* vegetable. Fruits are good for making pickle and dehydration for cooking vegetable. The average tender fruit yield potential is 86.9 q/ ha with 8 m X 8 m planting model under dry land conditions of semi-arid agro climate.



# **B.** Technology Developed:

The University has developed a number of production and protection technologies for cultivated area of university jurisdiction. These technologies have been summerised in table 14.

Table-9 . Production and protectin technologies developed by the University during reporting year (2015-2020)

S	S. No.	Technology Developed	Year
1	Micro in	rigation management in Fennel: Application of irrigation water by	2015-16
	drip at 0.	8 IW/CPE ratio on alternate days with paired row planting resulted	
	in increa	se in seed yield and along with 19% saving irrigation water in	
	comparis	on to surface irrigation.	
2	Micro in	rigation management in Fenugreek: Application of irrigation water	2015-16
	by drip a	at 0.6 IW/CPE ratio on alternate days with paired row planting of	
	fenugreel	k resulted in higher seed yield along with 35% saving irrigation	
	water in	comparison to surface irrigation.	
3	Managen	nent of seed midge of fennelP: Two foliarspray of acetamiprid 20	2015-16
	SP @ 0.	.004% g (2g/10 lit. water). First foliar spray should be made at	
	appearan	ce of seed midge damage and subsequent spray should be applied at	
	10 days a	ifter first spray	
4	Micro in	rigation management in Fennel: Application of irrigation water by	2015-16
	drip at 0.	8 IW/CPE ratio on alternate days with paired row planting resulted	
	in increase in seed yield and along with 19% saving irrigation water in		
	comparis	on to surface irrigation.	

5	Micro irrigation management in Fenugreek: Application of irrigation water	2015-16
	by drip at 0.6 IW/CPE ratio on alternate days with paired row planting of	
	fenugreek resulted in higher seed yield along with 35% saving irrigation	
	water in comparison to surface irrigation.	
6	Management of seed midge of fennel:Two foliar spray of acetamiprid 20 SP	2015-16
	@ 0.004% g (2g/10 lit. water). First foliar spray should be made at	
	appearance of seed midge damage and subsequent spray should be applied at	
	10 days after first spray.	
7	Integrated management of root rot and root borer in bael: Two applications	2016-17
	of carbendazim 50 WP (20 g/tree) + chlorpyriphos 20 EC (50 ml/tree) at the	
	time of manuring and repeated after 15-20 days interval is recommended for	
	control of root rot and root borer in bael.	
8	Irrigation at 0.6 IW/CPE ratio with hydrogel 2.5 kg/ha is recommended to	2016-17
	enhance the water use efficiency and higher seed yield of mustard.	
9	Management of shot hole borer, <i>Xyleborus sp.</i> on aonla: For the management	2017-18
	of shot hole borer in aonla pasting the imidachloprid 17.8 SL (2.8 ml),	
	carbendazim 50 WP (5 g) and Geru (Red Soil)400 gin one litre of water and	
	applied as paste to tree trunk from ground level to the point of starting	
	branches by cloth made brush in second week of February.	
10	Population dynamics of aonla leaf gall midge, Asphondylia	2017-18
	phyllanthi: Population dynamics study of Aonla Leaf gall midge,	
	Asphondylia phyllanthi revealed that the initiation of Aonla leaf gall midge,	
	Asphondylia phyllanthi damage was started in the month of February and it	
	was reached at its maximum level in the month of September in all the years.	
	The pest population increasing with the increasing in temperature and pest	
	population decreasing with the increasing of relative humidity and rainfall.	
	The meteorological study showed that pest population positively correlated	
	with the minimum and maximum temperature and negatively correlated with	
	the relative humidity and rainfall.	
11	Standardization of drip fertigation in fennel: Fertigation with water equal to	2017-18
	80% of actual evaporation (0.8 IW/CPE ratio) at an interval of 2-3 days and	
	75% recommended dose of fertilizers through soluble fertilizers at different	
	growth stages (20, 40, 40, 60, 80 &100 DAS) is recommended for improving	
	the yield and WUE of fennel in light textured soils of India.	
12	Standardization of drip irrigation and fertigation in coriander: Fertigation	2017-18
	with water equal to 80% of actual evaporation (0.8 IW/CPE ratio) at an	
	interval of 2-3 days and recommended dose of fertilizers through soluble	
	fertilizers at different growth stages (20, 40, 60&80 DAS) is recommended	
	for improving the yield and WUE in coriander in light textured soils of India.	
13	Sowing on 10 to 25 October at spacing 30x10/20 cm is recommended for	2017-18
<b>L</b>	1	l

	higher seed yield of mustard.	
14	For obtaining the maximum seed yield and net returns application of	2017-18
	100:40:30 kg NPK ha <sup>-1</sup> is recommended for mustard growing areas in	
	Rajasthan.	
15	Standardization of drip fertigation in fennel: Fertigation with water equal to	2017-18
	80% of actual evaporation (0.8 IW/CPE ratio) at an interval of 2-3 days and	
	75% recommended dose of fertilizers through soluble fertilizers at different	
	growth stages (20, 40, 40, 60, 80 & 100 DAS) is recommended for	
	improving the yield and WUE of fennel in light textured soils of India.	
16	Standardization of drip irrigation and fertigation in coriander:Fertigation	2017-18
	with water equal to 80% of actual evaporation (0.8 IW/CPE ratio) at an	
	interval of 2-3 days and recommended dose of fertilizers through soluble	
	fertilizers at different growth stages (20, 40, 60 & 80 DAS) is recommended	
	for improving the yield and WUE in coriander in light textured soils of India.	
17	Estimation of Avoidable losses caused by Leaf gall midge (Asphondylia	2018-19
	phyllanthi Felt ) and stem capsule borer (Betousa stylophora Swinhoe) in	
	Aonla: The leaf damage by leaf gall midge and twig damage by stem capsule	
	caterpillar in aonla can be minimized by the two foliar spray of	
	imidachloprid 17.8 SL@0.3 ml/ltr starting from March at 20 days interval	
	and subsequent two sprays of spinosad 45 SC @ 0.1 ml/lt at monsoon	
	initiation at 20 days interval followed by removal of infested twigs.	
18	Biochemical basis of resistance in ber powdery mildew at different fruit	2018-19
	development stages: The small sized fruits of ber are more prone to infection	
	by the powdery mildew pathogen as compared to advanced stages of fruits.	
	Resistance due to increased concentration of phenols. Hence, it is	
	recommended to advise farmers to keep intensive watch at early stage of	
	fruit development (i.e. at peanut stage) and to apply recommended	
	fungicides to minimize the yield loss.	
19	Cost effective control of ber powdery mildew:Two sprays of myclobutanil	2018-19
	(0.04%) at an interval of 15 days can be used to control powdery mildew of	
	ber as cost effective and as an alternative of dinocap (Karathane, 0.1 %).	
20	Micro irrigation and fertigation management in cumin: Fertigation with	2018-19
	water equal to 60% of actual evaporation (0.6 IW/CPE ratio) at an interval of	
	4 days and 80% recommended dose of fertilizers through soluble fertilizers	
	at different growth stages (10, 20, 40, 50, 70 & 80 DAS) is recommended for	
	improving the yield and WUE of cumin in light textured soils.	
21	Management of coriander powdery mildew using new generation fungicides:	2018-19
	Foliar spray of Hexaconazole 5% SC (1.0 ml/litre of water) at the time of	
	initial appearance of disease and second spray should be made after 15 days	
	interval are recommended for the management of powdery mildew disease	
	of coriander.	

22	Organic nutrients and disease management in cumin: Soil application of	2018-19
	Vermicompost (2t/ha) and seed treatment with Trichoderma harzianum	2010 17
	6g/kg seed along with Neem Seed Kernal Extract spray @ 5% at 40 days	
	after sowing and repeated thereafter at an interval of 15 days is	
	recommended for wilt control of cumin grown with organic nutrient	
	management practices.	
23	Bio-efficacy of newer molecules of insecticides against cumin aphid:	2018-19
	Effective and economical management of cumin aphid, first foliar spray of	
	Thiamethoxam 25 WG (25g a.i./ha; 2.5g/10lit. water) should be done at	
	initiation of aphid and second spray of Clothianidin 50 WDG (20 g a.i./ha;	
	1.0g/10lit. water) should be made after 10 days of the first spray.	
24	The maximum seed yield and net returns were obtained with application of	2018-19
	100:40:30 kg NPK ha-1 is recommended for mustard growing areas in	
	Rajasthan.	
25	Micro irrigation and fertigation management in cumin:Fertigation with water	2018-19
23	equal to 60% of actual evaporation (0.6 IW/CPE ratio) at an interval of 4	2010 17
	days and 80% recommended dose of fertilizers through soluble fertilizers at	
	different growth stages (10, 20, 40, 50, 70 & 80 DAS) is recommended for	
26	improving the yield and WUE of cumin in light textured soils.	2010 10
26	Management of coriander powdery mildew using new generation fungicides:	2018-19
	Foliar spray of Hexaconazole 5% SC (1.0 ml/litre of water) at the time of	
	initial appearance of disease and second spray should be made after 15 days	
	interval are recommended for the management of powdery mildew disease	
	of coriander.	
27	Organic nutrients and disease management in cumin: Soil application of	2018-19
	Vermicompost (2t/ha) and seed treatment with Trichoderma harzianum	
	6g/kg seed along with Neem Seed Kernal Extract spray @ 5% at 40 days	
	after sowing and repeated thereafter at an interval of 15 days is	
	recommended for wilt control of cumin grown with organic nutrient	
	management practices.	
28	Bio-efficacy of newer molecules of insecticides against cumin	2018-19
	aphid:Effective and economical management of cumin aphid, first foliar	
	spray of Thiamethoxam 25 WG (25g a.i./ha; 2.5g/10lit. water) should be	
	done at initiation of aphid and second spray of Clothianidin 50 WDG (20 g	
	a.i./ha; 1.0g/10lit. water) should be made after 10 days of the first spray.	
29	Seasonal activity of aonla shot hole borer, <i>Xyleborus sp.</i> : Seasonal activity of	2019-20
\ \( \( \alpha \)		∠U17 <b>-</b> ∠U
	aonla shot hole borer, <i>Xyleborus sp.</i> indicated its peak activity from Aug to	
	September with highest infestation level up to 30cm height from the ground	
20	level.	2010.20
30	Management of powdery mildew in cumin through new chemicals: Foliar	2019-20
	spray of Hexaconazole 5% SC (1.0 ml/litre of water) at the time of initial	

	appearance of disease and second spray should be made after 15 days interval are economical and effective management of cumin powdery mildew.	
31	Soil application of hydrogel @ 2.5 kg/ha along with two foliar spray of salicylic acid @200 ppm at flower initiation and siliquae formation stage is recommended for obtaining sustainable higher yield of rapeseed-mustard under rainfed conditions.	2019-20
32	Management of powdery mildew in cumin through new chemicals: Foliar spray of Hexaconazole 5% SC (1.0 ml/litre of water) at the time of initial appearance of disease and second spray should be made after 15 days interval are economical and effective management of cumin powdery mildew.	2019-20
33.	The application of fertilizer nutrients (NPKS) 100% RDF (110:40:60:30) at 6 days interval through drip irrigation system	2019-20
34.	Seed treatment of Imidacloprid 600 FS @ 8.75 ml/kg followed by spray of Imidacloprid 17.8 SL @ 0.009 % at 35 DAG gave effective control of shoot fly and stem borer and recorded highest ICBR. Moreover, the residues of the insecticides were below detectable limit at 42 days after spray. (POP, Rajasthan,2015)	2015
35	Seed treatment of Imidacloprid 600 FS @ 1.5 ml/kg seed (0.72 g ai /kg seed) effective control the termite infestation in wheat and barley crop.	2015
36.	Broadcasting of Imidacloprid 17.8 SL @ 400 ml/ha (80 g ai /kg seed) or fipronil 5% SC @ 3.0 lit./ha (150 g ai /ha) are effectively control the termite in wheat and barley crop after 21 DOS / first irrigation.	2015
37.	Pre emergence application of Pendimethalin 30 EC @ 0.75 kg ai /ha or Pendimethalin extra 38.7 CS @ 0.75 kg ai/ha significantly increased the yield and effectively managed the weed in chickpea.	2015
38.	Pre emergence application of Pendimethalin 30 EC or @ 0.75 kg ai /ha or Pendimethalin extra 38.7 CS @ 0.75 kg ai/ha significantly increased the yield and effectively managed the weeds in mustard.	2015
39	Seed inoculation with Rhizobium + PSB+PGPR+1.0 g Ammonium molybdate/kg seed along with RFD and 25 Kg ZnSo4/ha was found better for higher production of fieldpea.	2015
40.	Seed inoculation with Rhizobium + PSB+PGPR+1.0 g Ammonium molybdate/kg seed along with RFD and 25 Kg ZnSo4/ha was found better for higher production of lentil.	2015

41.	Seed treatment of cumin with coating of plant growth promoting <i>rhizobacteria</i> (PGPR) <i>Pseudomonas puida</i> + <i>Microbacterium paraoxydans</i> resulted into higher yield and returns.	2015
42.	Seed treatment of Imidacloprid 600 FS @ 6.5 ml/kg seed effectively the white grub infestation and increase pod yield of groundnut.	2015
43.	Seed soaking in carbosulfan 25 EC @ 8 ml/litre water is effective in reducing the nematode population and increase grain yield of moongbean.	2015
44.	Seed soaking in carbosulfan 25 EC @ 8 ml/litre water is effective in reducing the nematode population and increase grain yield of cowpea.	2015
45.	Sowing of cluster bean in the 1 <sup>st</sup> fortnight of July increase seed yield.	2015
46.	Post emergene application of imazethapyre @ 40 g a.i. /ha or imazethapyre + imazemox @ 40 g a.i. /ha at 20 DAS effectively managed weed problems and improve seed yield cluster bean.	2015
47.	Post emergene application of imazethapyre @ 40 g a.i. /ha or imazethapyre + imazemox @ 40 g a.i. /ha at 20 DAS effectively managed weed problems in cowpea.	2015
48.	Soil application of Trichoderma viridae @ 2.5 kg in 500 kg FYM/ha and seed treatment with T. vridae @ 4g/kg seed effectively managed root rot disease of cowpea.	2015
49.	Pearl millet seed can be stored for six months by mixing of neem leaves powder @ 10 g/kg, recorded lowest grain damage and also recorded lowest adult population of <i>Rhizopertha dominica</i> . The seed viability was highest i.e. above MSCS level of 75.0 %. (2015)	2015
50	As compared to conventional tillage, Zero tillage sowing with zero till drill sowing recorded statically at par yield which cause reduction in cost of cultivation by above 16-20%.	2016
51.	Application of vermicompost @ 2 ton/ha + 30 kg S/ha alongwith recommended dose of NPK for both the crop (Groundnut -Wheat) is recommended for Groundnut -Wheat sequence.	2016
52.	Seed treatment of imidacloprid 600 FS @ 8.75 ml /kg seed + Fish meal trap @ 10/ha + Spray 5 % NSKE at ear head stage(IPM Module III ) gave effective control of pest complex in pearl millet (2016)	2016
53.	Pasting of imidacloprid @ 0.5 % and carbendazim @ 5 gm + "geru" for 100 gm effective managed hole borer in anola.	2016

54.	Seed treatment of imidacloprid 600 FS @ 8.75 ml / kg seed/ Seed treatment of clothionidin 50 WDG @ 7.5 g / kg seed gave effective control to soil pests (white grub and termite) and recorded highest ICBR in pearl millet crop. Treated seed should be sown in 2 hours. (2017 POP, Rajasthan)	2017
55.	Application of FYM @ 7.5 t/ha + RDNPK+ Critical Nutrients viz., Fe (FeSO4 @ 25 kg/ha) and Zn (ZnSO4 @ 25 kg/ha) along with foliar application of urea @ 2% at 30 and 60 days exhibited maximum seed yield in groundnut.	2017
56.	Foliar application of 2% urea at 25-30 DAS significantly increased seed yield of rainfed cowpea which fetches higher net returns.	2017
57.	Transplanting of capsicum seedling on 15th September under low tunnel with mulch resulted in higher fruit yield (336.03 q/ ha)	2017
58.	Blast disease in Pearl millet can be managed by two foliar sprays of trifloxistrobin 25 % + tebuconazole 50 % (75 WG) @ 0.05 % or Propiconazole 25 % EC @ 0.05 % at the time of initiation of the disease followed by 15 days interval.	2017
59.	Sowing of wheat under zero tillage system by zero till drill produced statistically at par yield and reduced the cost of cultivation by 16-20% as compared with conventional tillage	2017
60.	Application of vermicompost @ 2 ton/ha + 30 kgS/ha alongwith recommended dose of NPK for both the crops (groundnut-wheat) is recommended for groundnut-wheat sequence.	2017
61	Foliar application of 0.5% FeSO4 at 25-30 DAS increased mean grain & straw yield of pearlmillet by about 6.30% and 6.99% respectively which fetch the B:C ratio of 2.46.	2018
62.	In Fe deficient areas application of recommended doses of fertilizer along with 50 kg FeSO4 to wheat significantly increased system wheat equivalent yield which fetched higher net returns and B:C ratio from wheat-guar crop sequence.	2018
63.	To manage lodging in Barley, foliar application of plant growth regulator i.e. chlormequat chloride (CCC) at 1.25 l/ha at 30-32 days after sowing followed by ethaphone (Cerone) at 0.5 l/ha at 33-35 days after sowing reduced the plant height by 10 cm and increased the grain yield by 15 per cent over control.	2018
64.	Foliar application of 0.5% each of ZnSO4 and FeSO4 along with slaked lime at pre-flowering and pod formation stage of chickpea significantly improved seed yield and Fe and Zn content in seed over control. It also fetches higher net returns and B: C ratio.	2018

	2010
	2018
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Diseases of mustard can be managed by soil treatment with Trichoderma @	2018
2.5kg/ha pre-incubated in 50kg FYM for 15 days followed by seed	
treatment with garlic extract @ 2% + seed treatment with Trichoderma @	
	2018
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45% increase in yield of coriander as compared to conventional practice.	
Drip fertigation with water equal to 80% of actual evaporation (0.8 IW/CPE	2018
ratio) at an interval of 2-3 days and 75% recommended dose of fertilizers	
through soluble fertilizers at different growth stages are found beneficial for	
-	
1	2019
	2018
1	
The leaf damage by leaf gall midge and twig damage by stem capsule	2018
caterpillar in aonla can be minimized by the two foliar spray of	
imidachloprid 17.8 SL@0.3 ml/ltr starting from March at 20 days interval	
and subsequent two sprays of spinosad 45 SC @ 0.1 ml/lt at monsoon	
initiation at 20 days interval followed by removal of infested twigs.	
	2019
	2017
	2010
, , ,	2019
for higher yield of clusterbean.	
The Pre emergence application of pendimethalin @ 750 g.a.i./ha alongwith	2019
one inter cultivation at 20-25 DAS is recommended for weed control in	
Cowpea.	
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The foliar spray of NPK (18:18:18 or 19:19:19) 2% in water at flower	2019
initiation stage is recommended for higher productivity in greengram.	2019
	treatment with garlic extract @ 2% + seed treatment with Trichoderma @ 10g/kg seed and for aphid control spraying with Thiamethaxam @ .01%  Drip fertigation with water equal to 80% of actual evaporation (0.8 IW/CPE ratio) at an interval of 2-3 days and recommended dose of fertilizers through soluble fertilizers at different growth stages are found beneficial for coriander. By adoption of this method 18.7% water can be saved along with 45% increase in yield of coriander as compared to conventional practice.  Drip fertigation with water equal to 80% of actual evaporation (0.8 IW/CPE ratio) at an interval of 2-3 days and 75% recommended dose of fertilizers through soluble fertilizers at different growth stages are found beneficial for fennel. By adoption of this method 25% fertilizer and 18.9% water can be saved along with 51% increase in yield of fennel as compared to conventional practice  Two sprays of myclobutanil 10% WP (@ 0.05%) at an interval of 15 days can be used to control powdery mildew of ber as cost effective and as an alternative of dinocap 0.1%.  The leaf damage by leaf gall midge and twig damage by stem capsule caterpillar in aonla can be minimized by the two foliar spray of imidachloprid 17.8 SL@0.3 ml/ltr starting from March at 20 days interval and subsequent two sprays of spinosad 45 SC @ 0.1 ml/lt at monsoon initiation at 20 days interval followed by removal of infested twigs.  The Pre emergence application of pendimethalin @ 750 g.a.i./ha alongwith one inter cultivation at 20-25 DAS is recommended for weed control in Clusterbean.  Foliar application of NPK (19:19:19) @ 1% at 40-45 DAS is recommended for higher yield of clusterbean.

76.	Two sprays of FeSO4 @ 0.5 % + ZnSO4 @ 0.5%+ Borax @ 0.4%, first spray during bud initiation and second after fruit set effectively managed cracking problem in pomegranate and also improved fruit yield.	2019
77.	To minimize lodging in wheat crop, two spray of Tebuconazole (430 SC) 0.1 % or Chlormequat Chloride (50% SL) 0.2 % in 400 liter water should be done at 40-45 and 75-80 days after sowing of crop.	2019
78.	For Effective control of broad leaved weeds in wheat crop, foliar spray of Halauxifen Methyl + Florasulam (Readymix) (40.85% WG) @ 12.76 g a.i. in 500 liter water should be done at 30-35 days after sowing of crop.	2019
79.	Fertigation with water equal to 60% of actual evaporation (0.6 IW/CPE ratio) at an interval of 4 days and 80% recommended dose of fertilizers through soluble fertilizers at different growth stages (10, 20, 40, 50, 70 & 80 DAS) is recommended for improving the yield and WUE of cumin in light textured soils.	2019
80.	Foliar spray of Hexaconazole 5% SC (1.0 ml/litre of water) at the time of initial appearance of disease and second spray should be made after 15 days interval are recommended for the management of powdery mildew disease of coriander	2019
81.	Soil application of Vermicompost (2t/ha) + seed treatment with Trichoderma (6g/kg) and spray of Neem Seed Kernal Extract 5% (twice) are recommended for the organic production and wilt disease management of cumin.	2019
82.	Effective and economical management of cumin aphid, first foliar spray of Thiamethoxam 25 WG (25g a.i./ha; 2.5g/10lit. water) should be done at initiation of aphid and second spray of Clothianidin 50 WDG (20 g a.i./ha; 1.0g/10lit. water) should be made after 10 days of the first spray	2019
83.	Seed treatment with clothianidin 50 WDG @ 7.5 g/kg seed followed by spray of fipronil 40% + imidacloprid 40% WG @ 0.04% (5 g/10 liter of water) at 35 days after germination (DAG) gave effective management of shoot fly and stem borer in pearl millet crop.	2019
84.	Deep summer ploughing followed by post emergence application of Tembotrione herbicide @100 g a.i/ha at 15-20 DAS is recommended for the control of Cyperus rotundus (Motha) weed in pearlmillet crop.	2020
85.	Under rainfed condition for enhancing productivity of pearlmillet, application of crop residue mulch @ 5 t/ha along with the furrow application of hydrogel @ 2.5 Kg/ha at the time of sowing is recommended.	2020

86.	Seed treatment with Imidacloprid 600 FS @ 8.75 ml/kg seed + removal of shoot fly dead heart +fish meal trap @ 10/ha + spray of Dimethoate 30 EC @ 0.03 % (10 ml/10 liter water) 35 days after germination (DAG) gave effective management of pest complex of pearl millet and recorded highest ICBR. (POP, Rajasthan, 2020	2020
87.	Seed treatment with NPK liquid bio-fertilizer @ 3 ml/kg seed+Zn solubilising bacteria @ 1.25 ml/kg is recommended for enhancing the productivity of groundnut.	2020
88.	Deep summer ploughing followed by pre emergence application of Pendimethalin 30 % +Imazethapyr 2 % (ready mix) @ 800 g a.i/ha is recommended for the control of Cyperus rotundus (Motha) weed in groundnut crop.	2020
89.	For the IDM of Alternaia, cercospora, downy milduw and mosaic disese in bottle gourd, seed treatment with Carbendazim 12 % + Mancozeb 63 % @ 3g/kg and drenching of Captan 70 % + Hexaconazole 5 % WP @ 0.1 % 15 days after germination followed by six spray at the interval of 10 days. 1st spray with 6.Tebuconazole 50 % + Trifloxystrobin 25 % WG @ 1g/lt. 2nd spray with Imidacloprid 17.8 SL @ 7.5 ml/15 lt + Neem oil 0.2%. 3rd spray with Fosetyl- AL @ 0.1 %. 4th spray with Tebuconazole 50 % + Trifloxystrobin 25 % WG @ 1g/lt. 5th spray with Imidacloprid 17.8 SL @ 7.5 ml/15 lt + Neem oil 0.2 % and 6th spray of Fosetyl- AL @ 0.1 %.	2020
90.	For Effective control of broad leaved weeds in barley crop, foliar spray of Halauxifen Methyl + Florasulam (Readymix) @ 12.76 g a.i. in 500 liter water should be done at 30-35 days after sowing of crop	2020
91.	Under limited irrigation condition basal application of hydrogel @ 5kg/ha supplemented with foliar application of Salicylic acid @ 75 ppm (75mg/litre water) at flower initiation and pod formation stage is recommended for getting higher productivity and monetary returns in Lentil.	2020
92.	Intercropping of chickpea and Linseed in 6:2 row ratio significantly improved chickpea equivalent yield and land equivalent ratio which fetches higher net returns and B:C ratio.	2020
93.	For the effective management of Asphodelus tenuifoliusweed in chickpea crop, pre-emergence application of Pendimethalin 30% + Imazethapyr 2% (Ready mix) @ 200 g a.i./ha (625 g commercial product per hectare) in 500 litres of water is recommended.	2020

94.	For the effective management of Orobanche weed in the mustard crop, application of Neem cake @ 200 kg/ha before sowing (at the time of land preparation) is recommended.	2020
95.	Foliar spray of Hexaconazole 5% SC (1.0 ml/litre of water) at the time of initial appearance of disease and second spray should be made after 15 days interval are economical and effective management of cumin powdery mildew.	2020
96.	Cereal cyst nematode (Heterodera avenae) causing molya disease in wheat has effectively been managed by using seed treatment of Neem oil @ 10 ml/kg seed with Neem cake 5 q/ha as soil application. It has increased grain yield and decreased CCN cyst population in the soil & roots.	2020
97.	Application of Imazethypar 35% SL + Imazamux 35%WP @ 100 gm/ha in standing crop of guar for weed control after 25 days of sowing.	2015-16
98.	Application of Imazethypar 35% SL + Imazamux 35%WP @ 100 gm/ha in standing crop of moong bean for weed control after 25 days of sowing.	2015-16
99.	Mustard varieties NPJ-112 and mustard Pusa-26 included in POP. In Iron deficient soil add 15 kg FeSo4 as a basal dose for wheat crop.	2015-16
100.	Wheat variety Raj-4120 confirmed for POP	2015-16
101.	4 lane lentil and one lane fennel (mixcropping) technology included in POP	2015-16
102.	4 lane lentil and one lane coriandar included in POP	2015-16
103.	Bajra variety RHB-177 included in POP	2016-17
104.	Application of Fortified butter milk @ 10% included in POP against the control of yellow mosaic diseases.	2016-17
105.	0.3% Fipronil granules @ 75 gm a.i./ha included in POP against termite control in bajra.	2016-17
106.	Guar varieties RGC-1055, 1038 and HG2-20 included in POP	2016-17
107.	Mustard varieties NPJ-112 and mustard Pusa-26 included in POP	2016-17
108.	In Iron deficient soil add 15 kg FeSo4 as a basal dose for wheat crop	2016-17
109.	Wheat variety Raj-4120 confirmed for POP	2016-17
110.	4 lane lentil and one lane fennel (mixcropping) technology included in POP	2016-17

111.	4 lane lentil and one lane coriandar included in POP	2016-17
112.	Til variety RT – 346 and RT – 35included in POP	2017-18
113.	Fipronil granuals @ 75 gm a.i./ ha (25 kg/ha) included in POP against termite control in guar	2017-18
114.	Imidachloprid 17.8 SL 30g a.i. 0.33 g / lit of water against sucking pest in clusterbean included in POP.	2017-18
115.	Taramira varieties RTM-1351, 1355 included in POP	2017-18
116.	Dimethoate 30 EC @ 300 g. a.i./ha included in POP against painted bug at terminal stage.	2017-18
117.	Wheat variety Raj-4238 and Raj-4083 included in POP	2017-18
118.	Barley variety BH-902 included in POP	2017-18
119.	Spray of acitamiprid 20% SP 0.40g per liter water against sucking pests in mungbean included in POP. The repeat of spray after 15 days of first spray, if needed.	2018-19
120.	Urdbean variety PU -31 has included in POP of Zone III_B. This variety is bold seeded; mature in 85-100days, resistant against Yellow Mosaic Virus and average yield 10-12q ha.	2018-19
121.	Mungbean variety RMG 492 has included in POP of Zone III-B. This variety has test weight 4.0g, mature in 85-100days, resistant against wilt & Yellow Mosaic Virus and average yield 8.0 q ha.	2018-19
122.	The identification and control measures of disease and pest of Kharif crops for prepararing a booklet has recommended	2018-19
123.	Use Metribuzine 70% @ 0.5 kg/ha at pre emergence in Potato crop for weed control.	2018-19
124.	Use of Thio-urea 500 ppm at tillering stage and ear emergence stage in barley crop included in POP.	2018-19
125	Seed treatment with fipronil 5% SC @ 4 ml/kg seed in wheat crop against termite control.	2018-19
126.	Basal Application of 5.0 kg <i>Trichoderma virdi</i> and <i>Trichoderma harzinum</i> included in POP for mustard and gram crop.	2018-19
127.	Use of Indoxcarb 14.5 SC @ 60 gm.a.i./ha against <i>Helicoverpa armigera</i> in gram crop included in POP.	2018-19
128.	Soil application of PROM @ 400 kg/ha in wheat and 300 kg/ha in gram crop is reported higher yield.	2018-19
129.	Soil application if 10 kg/ha FeSO4 + 0.5 % FeSO4 spray at ear emergence stage in wheat.	2018-19

130.	Soil application of <i>Trichoderma</i> @ 5.0 kg/ha followed by seed treatment @ 2 gm/kg Carbendazim has been included in POP for the management of root rot disease in chickpea.	2018-19
131.	Seed treatment with Carbendazim @ 0.2gm/kg followed by <i>T. harzianum</i> @	2018-19
	6 gm/kg seed + soil application of <i>T. harzianum</i> @ 2.5 kg/ha. along with 100	
	kg FYM enriched 15 days before sowing has been also included in POP for	
	the management of root rot disease of chickpea.	
132.	Use one spray of paraquat dichloride @ 1.0kg/ha for management of	2019-20
	Pluchea lanceolata (Baisuri) before sowing of pearl millet.	
133.	Use of Imidacloprid 17.5 SL against sucking insect pests in moongbean,	2019-20
	urdbean and gwar.	
134.	-	2019-20
	gm/kg Carbendazim has been included in POP for the management of root	
	rot disease in chickpea.	
125	•	2019-20
133.	Seed treatment with Carbendazim @ 0.2gm/kg followed by <i>T. harzianum</i> @	2019-20
	6 gm/kg seed + soil application of <i>T. harzianum</i> @ 2.5 kg/ha. along with 100	
	kg FYM enriched 15 days before sowing has been also included in POP for	
	the management of root rot disease of chickpea.	
136.	Basal soil application of ZnSo <sub>4</sub> @15 kg/ha has been included in POP in Zinc	2019-20
	deficient soils to get optimum yield in chickpea.	
137.	Basal soil application of FeSo <sub>4</sub> @10 kg/ha has been included in POP in Iron	2019-20
157.	deficient soils to get optimum yield in chickpea.	2017 20
138.		2019-20
	of Thiamethoxam @ 25 gm a.i./ha for the control of sucking pests specially	
	aphid has been included in POP.	
139.		2019-20
	for the control of termite in wheat crop has been included in POP.	
140.	Latest Latest release moongbean varieties viz. IPM-205-07 and IPM-410-3	2019-20
170.	and guar variety HG-870 include in package of practices of zone III-B	2017 20
	and guar variety 11G 676 include in package of practices of zone 111 B	
141.	Use 25 kg zinc sulphate, 15 kg copper sulphate & 10 kg Ferrous sulphate/ha	2019-20
	increased the fruit yield of round melon.	
142.	Two sprays of Indoxacarb 14.5% + Acetamiprid 7.7 % w/w SC 60 gm a.i./ha	2019-20
	best treatment for control of semilooper and blister beetle of green gram.	
	Application of FYM @ 15 t/ha along with foliar application of micronutrient	2016-17
143.	mixture (Fe: 2.5%, Zn: 0.3%, Mn: 1%, Cu: 1.0%, B: 0.2%) at 45 and 60 days	
	after transplanting is recommended for increasing onion productivity.	

144.	Foliar application of salicyclic acid @ 250 mg/l at 30 days after sowing in nursery and in the main field either at 30 or 45 or 60 days after transplanting is recommended for increasing onion productivity.	2016-17
145.	Enhancing WUE of Indian mustard under deficit and adequate irrigation scheduling with hydrogel: Irrigation at 0.6 IW/CPE ratio with hydrogel 2.5 kg/ha is recommended to enhance the water use efficiency and higher seed yield of mustard.	2016-17
146.	The suitable time for sowing and optimum planting geometry of newly developed mustard varieties: Sowing on 10 to 25 October at spacing 30x10/20 cm is recommended to highest seed yield of mustard.	2017-18
147.	Economic and effective level of fertility for newly developed mustard varieties: The maximum seed yield and net returns were obtained with 100:40:30 kg NPK ha-¹recommended for mustard growing areas in the Rajasthan.	2017-18
148.	Foliar spray of micronutrients ferrous sulphate @ 0.5% +Zinc sulphate @ 0.5%+ Borax @ 0.4%	2018-19
149.	The application of fertilizer nutrients (NPKS) through drip irrigation system increased marketable and total yield significantly in comparison to flood irrigation with broad casting method of fertilizers application. Application of of 100% RDF (110:40:60:30) at 6 days interval increased marketable bulb yield by 27.60% compared flood irrigation system and broad casting method.	2019-20
150.	Two sparys (at vegetative and flowering stage) of 0.5% Thiourea is suitable to mitigate heat stress in gram and barley crops.	2016-17
151.	Til variety RT-346 and RT-351 included in PoP	2017-18
152.	Fipronil granules @ 75 gm. a.i./ ha (25 kg/ ha) included in PoP against termite control in Guar	2017-18
153.	Imidachloropid 17.8 SL 30 g a.i. (0.33gm/lit of water) against sucking pest in clusterbean included in PoP.	2017-18
154.	Disc ploughing & application of Paraquat @ 1.25 Kg a.i./ ha during summer month (May) for continuously three years effectively control Jawasa weed in fellow land.	2018-19
155.	Maximum mean grain yield in barley (41.32 q./ha) was obtained with treatment Foliar spray of 500 ppm Thiourea at tillering stage + ear emergence stage closely followed by treatment Foliar spray of 100 ppm Ascorbic acid at tillering stage + ear emergence stage. The lowest yield was received at absolute control (34.94 qtl/ha.	2018-19

156.	Maximum mean grain yield in gram (11.56 q./ha) was obtained with treatment Foliar spray of 500 ppm TU at flowering stage + grain formation stage followed by Foliar & ear emergence spray of 100 ppm AA and TGA i.e. 10.82 q/ha.	2018-19
157.	Maximum mean grain yield in Potato (152.29 q./ha) was obtained with Spraying of Metribuzine 70%@ 0.5kg/ ha. at pre emergence stage closely followed by hand weeding (148.85 qt./ ha.) which were significantly higher than all the other treatments.	2018-19
158.	Maximum mean fruit yield (97.54qt/ha) of round melon was received at the treatment 25kg zinc sulphate, 15kg copper sulphate & 10kg Ferrous sulphate/ha, which was significantly higher than no treatment (Control)	2019-20
159.	Application of three split doses of nitrogen (80 kg/ ha) in grain sorghum in 50: 25:25 proportion was reported for better yield as compare to other method	2016-17
160.	Fertilizer as well as weed control input proved the prime factor affecting yield of forage sorghum	2016-17

# 6.6.3.4. Research Publication:

S. No.	Research Publication	NAAS rating
1.	Jakhar, B.L. (2015). Spray schedules comprising insecticides and botanicals against chili pests. <i>Indian Journal of Entomology</i> , 77 (3): 245-250.	5.89
2.	Selvakumar, R; Verma, R.P.S; Saharan M.S., Bhardwaj, S.C.; Shekhawat, P.S.; Madhu Meeta; Dhanbir Singh; Rakesh Delvash; Karwasra, S.S.; Jain S.K. and Indu Sharma (2015) Seedling and adult plant resistance of barley genotypes to stripe rust pathogen ( <i>Puccinia striiformis f. sp. Hordei</i> ) <i>Indian Phytopath.</i> 68(2) 218-220	5.90
3.	Aruna, C., Rakshit S., Shrotriya P.K., Pahuja S.K., Jain S.K., Siv Kumar, Modi, N.D., Deshmukh D.T., Kapoor, E. and Patil, J.V. (2016). Assessing genotype-by-environment interactions and trait associations in forage sorghum using GGE biplot analysis. <i>Journal of Agricultural Science, Cambridge</i> , 154 (1): 73-86.	6.8
4.	Jain, S.K. and Patel, P.R. (2016). Combining ability and gene action for yield and other quantitative traits in half diallel crosses of Sorghum [Sorghum bicolor (L.) Moench]. The Bioscan, 11 (2): 1027-1031.	5.26

5.	Kumar, N., Aggarwal, S., Aggarwal, P. K., Kumar, U., Jain,	8.65
3.	S., Swaroopa, D. N. Chauhan, N. and Saxena R. (2016). "Vulnerability of	8.03
	Indian mustard (Brassica juncea (L.) Czernj. Cosson) to climate variability	
	and future adaptation strategies". <i>Mitigation and Adaptation Strategies for</i>	
	Global Change. 10.1007/s11027-014-9606-Z, 21:403–420.	
6.	Bagri, R.K., Kumar, V. and Kumari, M. (2017) Management of black scurf	5.31
0.	disease of in Rajasthan. <i>International journal of Chemical Studies</i> 5(4):77-	3.31
	79	
7.	Bagri, R.K., Kumar, V. and Kumari, M. (2017) Management of black scurf	5.31
7.	disease of potato using chemicals Penflufen and Boric acid. <i>International</i>	3.31
	Journal of Chemical Studies 2017, 5(4):83-85	
0		7.10
8.	Gyawali, S., Verma, R.P.S., Kumar, S., Bhardwaj, S.C., Selvakumar, R.,	7.10
	Gangwar, O.P., Shekhawat, P.S., Rehman S., Sharma-poudyal, D.2017.	
	Seedling and adult-plant stage resistance of a world collection of barley	
	genotypes to stripe rust.WILEY Journal of Phytopathology 1-10	
9.	Jakhar, B.L.; Prajapati, Dhara M. and Ravindrababu, Y. (2017).	6.34
	Morphological and bio-chemical factors associated with resistance to	
	Maruca vitrata (testulalis) (Geyer) in cowpea. Legume Research. 2:1-3.	
10.	Jeeterwal, R.C., Sharma, L.D. and Nehra A. (2017). Combining ability &	5.31
	heterosis for grain iron & zinc content in pearl millet (Pennisetum glaucum	
	(L.) R. Br). International Journal of chemical Studies 5 (4) 472-475.	
11.	Jeeterwal, R.C., Sharma, L.D. and Nehra A., 2017. Combining ability	5.21
	studies through diallel analysis in pearl millet (Pennisetum glaucum (L.)	
	R. Br) under varying environment conditions. <i>Journal of Pharmacognosy</i> .	
	and Phytochemistry 6(4) 1083-1088.	
12.	Kumar, S., Sharma, P.K. and Kumar, Y. 2017. Effect of date of sowing on	3.94
	grain yield of malt cultivars under late sown conditions in semi arid eastern	
	plain zone of Rajasthan. Trend in Biosciences. 10(15) 2718-2719	
13.	Sharma, O.P., and Kumari, M., <b>2017.</b> Management of dry root rotdisease	5.31
	(Rihizoctonia bataticola) of chickpea through fungicides. International	
	Journal of Chemical studies 5 (4): 45-46.	
14.	Meena, V.S., Yadav, V.S., Meena, R.S., Sharma, P.C., Jalgaonkar, K.,	6.10
	Manoj and Nambi, V.E., <b>2017.</b> Optimization of aonla -blended juice based	5.10
	on antioxidants and sensory qualities using response surface methodology.	
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15.	Meena, V.S., Yadav, V.S., Nambi, V.E., Sharma, P.C., Jalgaonkar, K. and	5.35
	Gupta, R.K., 2017. Influence of process factors on antioxidants and	2.33
	chemical properties of blended Aonla ( <i>Emblica officinalis</i> Gaertn.) juice	
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	Chemical Studies. 5 (6): 2082-2089. (JID-1185,	
	C. C	

16.	Chongtham, S.K., Jain, S.K. and Patel, P.R. (2018) Effect of production	5.21
	resource constraints on yield and economics of kharif sorghum in the	
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17.	Gupta, K.C., Chand P. and Kumar, V. 2018. Effect of Tillage, Nutrition	5.31
	sources and Weed Managementon Growth and Productivity of Chickpea	
	(Cicer arietinum L.).2018. Int.J.Curr.Microbiol. App.Sci.7(11):706-710.	
18.	Gupta, K.C., Kumar, S. and Saxena, R. 2018. Effect of different weed	5.28
	control practices on yield and returns of mustard ( <i>Brassica juncea</i> L.).	0.20
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19.	Hatwal, P.K., Yadav, V.S., Thakur, R. and Mahawar, A.K. (2018)	4.86
15.	Estimation of heterosis in relation to combining ability for earliness, yield	1.00
	and quality attributes in pumpkin ( <i>Cucurbita moschata</i> Duch. ex Poir)	
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20.	Kukvaya, D., Jakhar, B.L., Choudhary, S.J. and Patel, B.C. (2018). Bio-	5.53
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21.	Kumar, P., Singh, H., Singh, J. and Choudhary, R. N. (2018). Estimation of	5.31
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	Wheat. Int. J. Curr. Microbiol. App. Sci. 7(7):3817-3825.	
22.	Kumar, R., Kumar D., Datt, C., Makarana, G., Yadav, M.R., Meel, B.	5.75
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23.	Kumawat, S., Sammauria, R. and Kumawat, P. <b>2018</b> . Growth and	5.31
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23.	Inbreeding Depression Studies for Yield and its Contributing Traits in	2.20
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32.	Verma H.P., Sharma, O.P., Rajesh Kumar R., Shivran, A.C., Sammuria R.	5.46
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33.	Verma, R.P.S., Selvakumar, R., Gangwar, O.P., Shekhawat, P.S.,	6.82
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34.	Verma, R.P.S., Selvakumar, R., Gangwar, O.P., Shekhawat, P.S.,	9.58
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35.	Visioni, A., Gyawali, S., Selvakumar, R., Gangwar, O.P., Shekhawat, P.S.,	10.11
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36.	Visioni, A., Gyawali, S., Selvakumar, R., Gangwar, O.P., Shekhawat, P.S.,	10.11
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39.	Bagri, R.K., Yadav, V.S., Singh, J., Goyal, S.K., Chawla, N., Sharma,	5.21
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40.	Bagri, R.K., Yadav, V.S., Singh. J, Goyal, S.K., Chawla, N., Sharma, R.S.	5.31
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4.1	Chemical Studies.10 s(2) 915-917.	7.21
41.	Ganvit, J.B., Sharma, S., Patel, S.D. and Italiya, A.P., 2019. Effect of	5.31
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42.	Ganvit, J.B., Sharma, S., Vaishali, H.S. and Ganvit, V.C., 2019. Effect of	5.21
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66.	Jakhar, S., Kumar, V., Choudhary, P.K., Jakhar, B.L. and Choudhary, S.K., <b>2020</b> . Estimation losses due to fruit fly, Bactrocera cucurbitae (Coquillett) on long melon in semi-arid region of Rajasthan. <i>Journal of entomology and Zoology studies</i> 8(6):632-635	5.38
67.	Jat, S.M., Baloda, A.S., Sharma, P., Jat, S.L. and Pinjara, I.M. <b>2020.</b> Estimation of residual toxicity of Acephate on okra, Abelmoschus esculents (L.) Monch. Under semiarid region of Rajasthan. <i>Ann. Pl. Protec. Sci.</i> 28 (1): 72-25.	4.82
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#### 6.6.3.5. Innovation and Best Practices:

#### A. Rainwater Harvesting Structure:

Nine rainwater harvesting structures of different capacities have been developed at university campus and at COA, Lalsot. The rain water collected is being used for conduction of different research experiments, seed production, fish cultivation etc.

#### **B.** Development of biofortified varieties:

University has developed two biofortified hybrid varieties of pearl millet namely RHB-233 and RHB-234. These hybrids have high iron and zinc source food for reducing anaemia and stunting in India.

- **C. Development of trait specific varieties:** The universitiy has developed following trait specific varieties in different crops.
  - a. Pearl millet variety RH-228 which is drought tolerant and resistant to downey mildew.
  - b. Groundnut variety Raj Mungfali 3 (RG-559-3)is semi spreading with extra bold kernels and suitable for export purposes.
  - c. Chickpea variety CSJ-515 (Aman) is suitable for mechanical harvesting.
  - d. Barley variety RD-2849 is two rowed rust resistant variety suitable for malt.
  - e. Wheat variety Raj-4238 released for late sown irriagted conditions in central zone and is resistant to all three rust (stem rust, yellow rust and brown rust).
  - f. Moong variety (SJ-118 perform well under moisture stress, responsive to nodulation, suitable for cultivation in both the season (kharif & spring).
  - g. Lentil variety RLG-5 is most suitable for irrigated and rainfed conditions in the state and in general double podded.

#### D. Development of Organic Block:

Anorganic block of one hectare area has been developed at Agronomy Farm, SKNCOA, Jobner. For this one hectare area has been registered by Rajasthan Organic Certification Agency (ROCA) Jaipur. We grow crops regularly on this block and getting good quality produce. For the nutrient, insect and disease management all the required materials are prepared on the farm like as panchgavya, vermiwash, jeevamrit, matka khad, compost, tea. teekha, neem leaves extract etc.

## E. Management of predominant white grub species, Holotrichia consenguniea through slow release nano gel formulation of pheromone methoxy benzene:

The already isolated and characterized pheromone methoxy benzene of predominant species of groundnut ecosystem Holotrichia consenguniea at RARI Durgapura is aggregating pheromone but it is highly volatile in nature so, daily putting of new septa on host tree does require. To overcome this problem for farmers pheromone lure is prepared by Nano gel technology for beetle management and tested in white grub endemic areas of Rajasthan. Experimental results reveal that the pheromone lure is effective in aggregation of beetles up to one month, which is ready to release now. Therefore, daily putting of new septa on host tree will not be required for one month (Fig 1). Developed, slow release "Nanogel Technology" will be transferred to the farmers of Rajasthan and impact analysis study is going o by ICAR.



**Preparation of Pheromone lure** 



Installation of Pheromone lure in field



Attraction of beetles towards Pheromone lure



Collected beetles in Pheromone trap

**6.6.3.6. IPR Cell/ ITMU**: Yes, the University is having functional Intellectual Property Right Cell vide office order No. F.04(Estt.) /DOR/ SKNAU/2021/511 dated 04.02.2021. This cell do the patenting work of different products/technologies/ varieties of the University. Till date no meeting has been conducted by the Cell.

#### **6.6.3.7.** Central Instrumentation Unit

A central laboratory has been established at **SKN** College of Agriculture. Post Graduate students conduct their research work in the laboratory. The lab is equipped with the following instruments.

Name of	Space area (	Specialty to conduct practicals /hand on training			
Laboratory sq feet)					
Central	(1200 sq feet)	HPLC, GC, Electrophoresis (Vertical & Horizontal),			
Laboratory		Gel Doc, P <sup>H</sup> meter, EC meter, Hot plate, UV-			
		visible spectrophotometer, Magnetic stirrer, oven, shaker			
		Distillation unit, Hot water bath,etc.			

6.6.3.8. Global Support: University received a collaborative project on Characterization of Chickpea Germplasm Resources to Accelerate Genomic assisted Crop Improvement from Ministry of Science and Technology, Department of Biotechnology, Govt. of India with the fund of 125.39 lakhs. In order to enhance linkage and collaboration in research and teaching 15 MoU have been signed with national and interantional institutes such as ICRISAT, Hyderabad, Directorate of Rape Seed and Mustard, Bharatpur, Rajasthan, Kausahal University Jaipur, CIAH Bikaner, National Bureau of Soil Conservation and Land Use Planning, Nagpur etc. Efforts are continued to developed more collaborations for research monitoring and seeking placement for faculty or students to obtain advance training in cutting edge science frontier areas.

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# **Chapter 4 Extension Support**

#### **6.6.4. Extension Support**

#### **6.6.4.1. Extension Council:**

The Extension Education Council is formulated to develop liaison with the scientists, farmers, field level functionaries of line departments, NGOs and other developmental agencies. The objective of the council is to assess the efforts done by the DEE and KVKs to transfer the technologies among the farming community. The Directorate of Extension Education organized its first Extension Council meeting on June 4, 2015 and second meeting on 27, October 2017 at University headquarter.

#### 6.6.4.2. Directorate of Extension Education:

The Directorate of Extension Education was set up on 13<sup>th</sup>Nov 2013 as the nodal agency of in Sri Karan Narendra Agriculture University, Jobner alongwith the Extension wing, keeping in view the major objectives of Directorate of Extension Education in State Agriculture University. Its purpose is to promote agricultural development in the state through quick transfer of technology by providing training, advisory and farm information to the farmers and professional extension personnel of line department and farmers. It also involves in assessment, refinement & adoption of technology through on farm testing and front line demonstration. Being a crucial institution of the University, the Directorate provides guidelines, monitor and evaluate the extension programmes of KVKs functioning under SKNAU. The directorate also extends its support to the state departments through farm information by publishing literature on different discipline of agriculture and allied subjects. Thus three functional areas of the Directorate of Extension Education, SKNAU, at present are training, advisory and communication. The directorate has a team of multi disciplinary scientists who work in participatory mode in close co-ordination with the Department of Agriculture, Animal Husbandry, Horticulture, forestry, Co-operatives, Panchayat samities and other agencies engaged for betterment of rural people with following broad objectiv

The objectives of the Directorate of Extension Education are:

- To formulate and impart in service trainings to the different categories of the officers and field functionaries from line department of govt. of Rajasthan and Non government organizations.
- To conduct short and long duration vocational trainings for front line farmers, Farm women, farm youth and school dropout of the state.
- To provide farm information services through various extension activities including literature for quick dissemination of the technology.
- To monitor KVKs and provide technical backstopping to ensure effective functioning.

The Mission of the Directorate of Extension is 'Reaching the Unreached' for Livelihood Security, Improved Quality Life and sustainability of agriculture Complex, diversified and risk prone farmers for Social equality and inclusive growth.

#### **Extension Unit and their Role**

The Directorate of Extension promotes agricultural development through transfer of agrotechniques by imparting training, advisory and farm information to extension personnel, line departments, farmers and other stake holders through seven KVKs located at Tabiji (Ajmer), Dausa, Gonera-(Kotputli), Navgaon (Alwar), Kumher (Bharatpur), Dholpur and Fatehpur (Sikar). Beside this, one Agriculture Technology Management Quality Improvement Centre (ATMQIC) is also operative atJobner.

#### KRISHI VIGYAN KENDRAs (KVKs)

The Directorate of Extension Educationhas seven KVKs in eight districts. Beside, 3 KVKs namely KVK Chomu, KVK Banasthali and KVK Bansoor are under the control of the NGOs and ICAR respectively. However, the DEE is providing technical support to these KVKs also. The details of the KVKs has been summarized in table 13.

Table-10. Agro-climatic zone wise location of the KVKs

Agro climatic zones	Districts	Location of KVKs	Year of establishment	Farm area (ha)
II a Transitional plain of Inland Drainage	Sikar	Fatehpur Shekhawati	1976	15.24
III a Semi arid eastern	Jaipur	Kotputli	2012	41.05
Plains	Ajmer	Tabiji	1992	10.77
	Dausa	Khedla Khurd	1994	17.30
III b Flood prone eastern	Alwar	Navgaon	1992	20.00
plains	Bharatpur	Kumher	1984	21.35
	Dholpur	Mundsur	1992	20.04

#### Lead functions and Mandates of KVK

- i. Conducting on farm testing to identify the location specific agriculture Technology under various farming System
- ii. Organizing Front line demonstrations (FLDs) on various crops to establish its production potentials on thefarmer's field and feed- back information from field functionaries.
- iii. Organizations of trainings of farmers, farm women and rural youth to update their knowledge and skills inmodern agricultural technologies.
- iv. Training of Extension personnel to orient them in frontier areas of technology development.
- v. To work as knowledge and resource center of agricultural technologies.

#### **Agriculture Technology Management Quality Improvement Centre (ATMQIC):**

The current era of Agriculture Technology Information Centre is the era of information revolution. Development is incomplete without information. The biggest challenge is to deliver the necessary information to the farmers at right time. Agriculture Technology Information Centre is an important place in the present era to provide the latest information about agriculture development to

the farmers. Though this centre, necessary information is communicated from one place to the end users. Along with information, product and services including improved seeds, plants making, agriculture literature, etc, are made available under one roof from a single window. Agriculture Technology Management Quality Improvement Centre (ATMQIC) is operating at Johner with the following objectives.

- i. To establish ICT enabled Agriculture Technology and Management Quality Improvement Center for the region of Rajasthan.
- ii. To facilitate efficiently the farmer's access to the institutional resources available in terms of technology, advice, technology products, devices, tools etc. for effective communication and reducing technology dissemination losses.
- iii. To provide mechanism for feedback from the end users to the institute for further perfection of technology and practices.
- iv. To train farmers with recent trends in precision, conservation, specialty and secondary agriculture.
- v. To deliver location and need based agro-information/ technologies to the farmers

#### Services offered by the ATMQIC

- ➤ Kisan Call Center
- > Exposure visits for Farmers and Farm women
- Announcements of events, supply and services for farmers, professional and field functionaries
- > Publication and distribution of farm literature
- > Agriculture resource center
- ➤ ICT Hub Station with Video Conference System (Capacity 50 persons)
- ➤ E- Kiosk Facility
- ➤ Food Park/ Energy park/ shoppy
- ➤ Dissemination of Agriculture Technology to the farmers through trainings and demonstrations
- Farmers Hostel (capacity 30 persons)
- ➤ Smart Class Room (capacity 50 persons)
- > Agricultural Education Museum
- > Shed net for nursery
- > Solar system
- ➤ Micro irrigation system (Drip & Sprinkler)
- ➤ Water harvesting Structure
- > Graphic table for data presentation
- > Fish po

#### **Staff Pattern**

Directorate of Extension Education at Head quarter					
Directorate of Extension Education at	(7) Krishi Vigyan Kendra				
Head Quarter					

Director	01	Sr. Scientist &Head	07
Dy. Director	01	SMSs	42
Assistant Professor	01	Technical staff	35
Instructor	01	Ministerial staff	14
Technical staff	02	Supporting staff	14
Ministerial staff	11		
Supporting staff	04		
Total	21	Total	112

**Present Staff Strength** 

Unit/KVK	Sanctioned			Filled	Filled			Vacant*		
	Prof.	Assoc.  Prof./Sr. Scientist & Head	Asstt. Prof./ SMS	Prof.	Assoc.  Prof./Sr. Scientist & Head	Asstt. Prof./ SMS	Prof.	Assoc.  Prof./Sr. Scientist & Head	Asstt.  Prof./ SMS	
DEE	01	01	01	01	01	01	nil	nil	nil	
KVK Ajmer	_	01	06	-	01	05	-	Nil	01	
KVK, Kotputli	_	01	06	-	01	04	-	Nil	02	
KVK Dausa	_	01	06	-	-	05	-	01	01	
KVK Bharatpur	_	01	06	-	-	04	-	01	02	
KVK Dholpur	_	01	06	-	01	02	-	nil	04	
KVK Navgaon	_	01	06	-	01	05	-	nil	01	
KVK Fatehpur	_	01	06	-	01	03	-	nil	03	
Total		08	43	01	06	29	nil	02	14	

<sup>\*</sup>Recruitment in process.

### Extension activites in last five years (2015-20)

#### Farmers' Fair

**1. A farmers' fair (Tilhan) during 3-4 March, 2016** was organized at SKNAU, Jobner with the financial aids received from Department of Agriculture, Rajasthan through NMOOP mission-I.

- **2.** A farmers' fair (Tilhan) on 4<sup>th</sup> March, 2017 was organized at SKNAU, Jobner with the financial aids received from Department of Agriculture, Rajasthan through NMOOP mission-I. On this occasion Prof. Sanwar Lal Jat, President of Rajasthan Kisan Aayog, Jaipur was Chief Guest.
- **3. Farmer Scientist interaction**: One farmer scientists interaction program was organized at village Idan ka bas. Hon'ble Governor, Rajasthan Shree Kalyan Singh's visited and interacted with the villagers on 4/5/16 wherein about 2000 farmers, farmer women and youths participated. About 83 questions relating to different aspects of rural life and Agricultural scenario were asked by farmers including woman farmers and rural youths. The subject matter specialists of different subjects, working in SKNAU, Jobner answered their questions. An agricultural exhibition was also organized on this occasion in which 10 stalls were put up depicting technologies related to agriculture and allied subjects. Hon'ble Governor also interacted directly with farmers, farmer women and youths and suggested to constitute village youths' committee which should regularly (monthly) organize a meeting for planning and action should be taken accordingly. Hon'ble Governor also emphasized on Swachh Bharat Mission, self employment, soil and water health card and conservation through water harvesting. Sarpanch and Pradhan were also present on the occasion.
- **4. Farmer Fair:** Directorate of Extension Education organized a five days Farmers fair during 22-26 Feb., 2021.In this fair about 3500 farmers, students and Agri. Scientists of University as well as KVK's participated. The fair was inaugurated by Sh. Lal Chand Katariya, Agriculture Minister and Sh. Subhash Garg, Minister of Technical Education, Govt. of Rajasthan. In the fair 65 exhibition stalls were put up by University, Govt. department& private agenciesexhibiting improved seeds, fertilizers, irrigation system, agriculture implements, machinery, organic farming and other allied components.

Institutional in-service Training: Three days Institutional in-service Training on "Communication Skills for Effective Extension Services" was organized during 20.09.2016 to 22.09.2016 at Directorate of Extension Education, SKNAU, Jobner in collaboration with EEI, Anand, Gujarat. About 25 SMS/Asstt. Professors participated. Four days Institutional in-service training prgramme on "PRA tools and techniques for SREP development" was conducted during 06.12.2016 to 09.12.2016 at Directorate of Extension Education, SKNAU, Jobner in collaboration with EEI, Anand, Gujarat. About 25 SMS/Asstt. Professors participated.

**University's participation in GRAM-2016-** The Directorate of Extension Education in collaboration with other University units put up an exhibition stall in Global Rajasthan Agri. Tech Meet 2016 (GRAM), at Jaipur during 9-11 Nov., 2016.

One plantation programme was organized in village Idan ka bas in which 750 plants of ardu, Katchnar, Kesiya samiya, gulmohar, were planted on gochar land and farmers' field. Conducted Inter-state (Rajasthan, U.P., Uttarakhand, Punjab and Haryana) exposure visit of farmers and farm women from 15.10.2016 to 23.102016 (Nine days) during visit they participated in 100<sup>th</sup> farmers fair of GBPUAT, Pantnagar and also visited the different national and state agricultural institutes and learned about practical application of agricultural and animal husbandry related technologies.

**Swahchh Bharat Pakhwada**: Celebrated Swachchh Bharat Pakhwada (Nov. 1-15, 2016) by SKNAU Staff- students and villagers, in which road side and school cleanliness work was done by

the participants. A meeting cum group discussion was also organized to discuss the importance of health, hygiene and cleanliness. Organized awareness campaign on 03.06.2016 in which 85 farmers/farmwomen and officers/scientists participated.

**Training for Trainers under Skill Development Programme of ASCI:** A training for trainers under skill development programme of Agriculture skill council of India (ASCI), Gurugram was organized by the Directorate of Extension Education from 20-22 september, 2018. Around 80 trainers from KVKs of Haryana, Delhi, Madhya Pradesh and Rajasthan participated in this programme.

Zonal Workshop-cum Training on Cluster FLDs under National Food Security Mission ICAR, ATARI, Jodhpur & Directorate of Extension Education, SKNAU, Jobner organized a two days Zonal Workshop-cum Training on Cluster FLDs under National Food Security Mission from 14-15<sup>th</sup> Dec., 2018 at SKNAU, Jobner in which 100 SMS/Sr. Scientist & head from different KVKs of Rajasthan, Haryana & Delhi participated.

**Visit of Foreign Delegates**: A Foreign delegation from Nepal visited the Directorate of Extension Education, SKNAU, Jobner on 30.06.2018wherein Director, DEE, SKNAU, Jobner presented the overall activities of Directorate of Extension Education. Dr. Yogendra Kumar Karki, Joint Secretary, Govt. of Nepal, Director General, NIAM Dr. P. ChandraShekara and Director NIAM Dr. Hema Yadav also accompanied the delegation.

**MoU**: An MOU with the PCRA (Petroleum Conservation Research Association) has been signed for creating awareness among the farmers regarding efficient use of Fuel.

**Review Meetings of KVKs**: 43 review meetings of Programme coordinators / scientists of KVKs under SKNAU, Jobner were conducted during this period. The issues related to day to day activities of KVKs were reviewed in the presence of Director Extension and other dignitaries of SKNAU, Jobner. Progress made by the KVKs was reviewed in these meetings.

**International Soil Day**: Each year "Internation! Soil Day" was celebrated by the Directorate of Extension Education on 5<sup>th</sup> Dec 2020 and soil health cards are distributed to farmers. Total 650 "soil health cards have been distributed to farmers till date.

**Exhibitions**: Total 27 exhibitions were organized by Directorate of Extension Education during the year 2015-2020 at various places in Rajasthan including 03 exhibitions in Global Rajasthan Agritech Meet (GRAM) at jaipur, kota and Udaipur organized by the Government of Rajasthan.

**Souvenier**: A souvenir specially prepared for farmers' fair was published, released and distributed among the participating farmers at the time of fair during March 3 - 4, 2016, 4<sup>th</sup> March 2017 and Feb 2021

**Publication of Monthly News Letter**: A monthly News letter "Jobner Kheti" is being published. Besides that large No. publications are published from Directorate. This news letter is available online on the University website. Directorate of Extension Education published a book entitled "Navachar Se Safalta" in which stories of progressive farmers of KVK as well as DEE have been compiled.

**News and Views of SKNAU**: A quarterly magagine has been initiated by Directorate having compilation of University activities from December 2020. Apart from aUniversity Diary also published by Directorate.

**Mobile App**: Mobile app have been developed by scientists of KVK Dholpur, Bharatpur and Dausa in 2020 in which farmers can watch the KVKs activities and take the information of farm practices.

Agriculture Technology Management Quality Improvement Centre (ATMQIC): The current era of Agriculture Technology Information Centre is the era of information revolution. Development is incomplete without information. The biggest challenge is to deliver the necessary information to the farmers at right time. Agriculture Technology Information Centre is an important place in the present era to provide the latest information about agriculture development to the farmers. Though this centre, necessary information is communicated from one place to the end users. Along with information, product and services including improved seeds, planting materials, agriculture literature, etc, are made available under one roof from a single window.

#### Live Telecast

Live telecast speech of Hon'ble Prime Minister in Krishi Unnati Mela 2018 on 17.03.2018 was shown to 700 farmers, students and Agri. scientists at Sri Karan Narendra Agriculture University,

1. Live Telecast/Webcast of inauguration of PM Kisan Samman Nidhi Yojana on 24.02.2019

#### **Diploma in Agricultural Extension Services for Input Dealers (DAESI):**

One year diploma course of DAESI programme started on 25.08.2018 in which 40 weeks for theory & 8 weeks for practical. Sponsored by - MANAGE Hyderabad in collaboration with SIAM,

Durgapura, Jaipur.Five KVKs started DAESI course (Ajmer, Kotputli, Dausa, Navgaon- & Alwar). The first DAESI programme is completed at KVK, Fatehpur-Sikar from Feb., 2018 to Jan., 2019.

**One day workshop** on "Positive Attitude for better performance" organized on 2<sup>nd</sup>Aug, 2017. The Dean, Directors, University Officials and Research Students (70) were participated in the Workshop.

**Four days Institutional in-service training programme** on "Promotion of Public Private Partnership under Extension Reforms" organized during 01 – 04 Aug, 2017. Thirty one SMS &Assistant Professors participated

**Four days Institutional in-service training programme** on "Participatory Rural Appraisal (PRA) tools and techniques for Strategic Research and Extension Plan (SREP) development" organized during 06.12.2016 to 09.12.2016. Twenty five SMS & Assistant Professors participated.

**Three days off campus training** on "Communication Skills for Effective Extension Services" organized during 20.09.2016 to 22.09.2016. Twenty five SMSs & Assistant Professors participated

#### ICAR Sponsored Training under Pt. Deen Dayal Upadhyay Unnat Krishi Siksha Yojana

The ICAR, New Delhi has granted two training programmes (Rs. 05.0 lacs each) to this University for farmers under Unnat Bharat Abhiyan (UBA) during the financial year 2016. Two training centers have been identified for organizing the trainings for skill development of farmers as following:

Village- Katorathal, Sikar (Rajasthan)

Village- Kirathpur, Teh. Kotputli, Jaipur (Rajasthan)

#### World Soil Health Day organized at KVKs and DEE.

World Soil Health Day was organised on 5<sup>th</sup> of December, 2016 at KVKs and Directorate of Extension Education, SKNAU, Johnner to make the farmers aware about the importance of soil health for better agricultural production. Soil health cards were distributed to the farmers.

#### **Extension Coordination Mechanism**

For effective transfer of Agricultural technology to the farming community, the directorate of extension education and KVKs are coordinating with the line department including Department of Agriculture, Horticulture, Animal husbandry, soil conservation and water shed Development, rajasthan state seed corporation, fisheries, forest cooperative etc. along with ICAR institutes. The Head of department of these departments, Head of Institutes are included as memberin extension advisory committee at University level. At KVK levelthe official of these department/ research institutes are involved in the scientific Advisory committee. KVK scientists are also included in ATMA management committee at district level.

#### Extension and Technology Dissemination System & Contribution to Academic Programmes

Directorate of Extension Education is the apex body working at the University headquarters and the Krishi Vigyan Kendras are located at District level working for the technology dissemination to the farmers. Different methodologies like On-Farm Testing, Front Line Demonstrations, and Training etc. are being used to have wider application of technologies. On-Farm Testing is conducted to resolve the problems faced by the farmers in the adoption of technologies. Front Line Demonstrations are conducted to show the production potential of the varieties and technologies to the farmers. Training is conducted for farmers, farm women and rural youth for inculcating the skills in different technologies and trades. In order to convince the farmers about technologies supportive extension activities like field days, farmers fair, exhibitions, *Kisan goshthies*, etc., are also conducted. The KVKs are working as a knowledge resource center for the line departments and farmers of the respective districts. Various kinds of literature like leaflets, bulletins, magazines, folders etc. are published to popularize the technologies among the farmers.

The extension wing of the University is also contributing in academic programmers. There is an integration in the faculty at the University headquarter *i.e.* the faculty of extension working in different units are also involved in teaching and guiding of the PG and Ph.D. students. Apart from it, the KVKs are playing a vital role in the execution of RAWE / student READY programme of Under-graduate students.

#### Krishi Vigyan Kendras

During the year 2015 to 2020, SKRAU, KVKs organized 599 on-campus and 1250 off-campus trainings with the participation of 15010 and 30516 farmers & farm women, respectively. KVKs have also organized 326 sponsored training programmes for the state Department of Agriculture, Horticulture; Water shed development, under ATMA, RMoL and RKVY programme etc. with the participation of 8582 farmers and farm women (Table 14).

Table-11. Trainings conducted for farmers & farm women during 2015-December 2020

Name of	2015-	16	2016-	17	2017-	18	2018-	19	2019	-20	Total	
programme	No.	Part.	No.	Part.	No.	Part.	No.	Part.	No.	Part.	No.	Part.
Training	611	1641	260	6331	774	21657	397	1165	390	8799	2432	5436
		5						9				7
FLDs (ha)	620.54	1590	1123	1522	1341	3416	1163.	2843	115	3561	539	129
			.6		.80		55		0.3		9.75	32
OFT	18	225	18	218	24	251	26	279	31	310	117	1283
Field day	41	2326	14	788	47	2538	-		-	-	102	5652
Farmers	16	222	09	9823	06	5381	-	-	-	-	31	374
Fair		30										34
Exhibitions	28	3122	10	8505	23	34023	-	-	-	-	61	7374
		1										9

For the field functionary, total2432 trainingswere organized by KVKs with the participation of 54367 participants. It includes on campus, Off campus and vocational training for unemployed youth. To popularize the latest proven technology of oil seed and pulse production, among the farmers and field functionaries, KVKs were organizing Front Line Demonstration. During the period 2015-2020 Front Line Demonstration were conducted by KVKs on 5399.75ha.land.The crops include cereals, millets,oil seeds, pulses,gram,groundnut etc.About 25-30 percent increase in yield over and above local yieldwas recorded under front line demonstration.

To identify suitable solutions of the location specific problem being faced by the farmers in the adopted villages, 117 On Farm Testing (OFTs) were taken up by KVKs on various crops like gram, mustard, wheat, groundnut, Isabgol, groundnut, pearl millet, cauliflower, chilli, onion, ber, pomegranate, Kinnow and animal like cow, goat and buffalo. OFTs were also conducted on malnutrition in children.

In order to pass the technology to the farming society as early as possible various supportive educational activities such as field days (102), farmer's fair (31), Exhibition (61), diagnostic services (145), scientists visit to farmers field (1052), farmers visit to KVKs (21721), telephone help line (18256), farmers scientist interaction (21), kisan goshthi (274), educational tour (10), self help group (31), radio talk (93), press release (1135), Krishi Aadaan Shivir (19), lecture

delivered in other programmes (972), Ag. Mobile clinic (57), soil and water testing (3373), Ag. Technology week (12), etc. were organized by KVKs.

About 9173.07 qt. seed of improved varieties of various crops was produced on instructional farms of KVKs during the year 2015-2020 and sold to the farmers, Department of Agriculture & NGOs. Revenue of around '8.12 crore was generated through seed production (Table 15).

Table-12. Seed production from last five Years

Type of	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Seed	2021.45	1470.57	1859.80	2233.2	1587.97	9173.07

#### **6.6.4.3.** Extension Planning and Technological Impact:

Extension planning can help in extension of technologies developed by an institution among farmers through various extension activities *i.e.* training, demonstration, field day, radio/TV talk, scientist visit, literature, newspaper coverage etc. For effective planning various meetings (monthly, quarterly, yearly etc.) are organized time to time where suggestions are taken for betterment of farming community. For recognizing the farmers need gap analysis is done before implementing any programme to fill the gaps between farmers practice and recommended practice.

#### **Impact Statement**

Krishi Vigyan Kendras under the supervision of **Directorate** of Extension Education, SKNAU, Jobner under taking several extension activities in their respective districts keeping in view the thrust areas and objectives set forth. The main objective of KVKs is to organize short and long duration training programmes for farmers, farm women, rural youth and field level extension functionaries. KVKs also organizing demonstration and other extension activities such as farmer's fair, field days, exhibitions etc. in adopted villages. Time to time impact of above said activities is being assessed by the KVK scientists applying observation techniques, impact methodology and appropriate statistical designs. Extension Scientists also study the constraints and impediments being faced by the farmers in adoption of recommended agricultural technologies. The outcome of such studies is helpful in deciding future line of action and in re-orientation of extension activities. Technological impact of various programmes are also analyzed through impact studies, case studies, success stories, horizontal and vertical expansion of technologies, survey etc.

#### Impact of training programmes conducted by KVKs

Increased adoption of various agronomical practices: Krishi Vigyan Kendras are organizing training on various agricultural aspects including crop production, fruits, vegetables, animal production and other allied aspects. To measure impactofthetrainingprogramme with regards to adoption of recommended crop production practices, follow up programme is being taken up by allmost all the KVKs under SKNAU, Jobner. It has been observed and reported by KVK, Bharatpur and Ajmer that the farmer who participated under KVKs training programmes have 20-50% higher adoption of improved practices of crop production, such as use of improved seed, seed treatment, balance use of fertilizer, irrigation management, plant protection measures, seed rate and spacing etc.

**Income generation through vocational training programmes:** Some vocational training programmes like vermin composting, nursery raising, fruit and vegetable preservation, green fodder production, fish cultivation was organized by KVKs. In order to measure impact of training programmes in term of change in income level of participants was measured before and after the training programmes. It has been reported that about 30-40% unemployed youth could be able to got employment in private organization.

#### **6.6.4.4.** Implementation of National Initiatives:

**Status of Implementation of Student Ready**/ RAWE: As per recommendation of V<sup>th</sup> Dean Committee, the students are attached to different KVKs and placed with farmer's family so that they may acquire adequate practical knowledge to start their own agri-business and turn them into entrepreneur rather than job seeker. The table shown below give the information of number of students successfully completed the students ready/ RAWE programme from 2016-2020 (Table 16).

S. No.	Name of KVK	Year	No. of students successfully completed the programme
1.	Ajmer	2016-20	197
2.	Bharatpur	2016- 20	45
3.	Dausa	2016-20	445
4.	Dholpur	2016-20	-
5.	Navgaon	2016-20	-
6.	Sikar	2016-20	-
7.	Kotputli	2016-20	106
	Total	793	

**Green Initiatives**: Under the plantation drive and to make the campus "Green" efforts have been iniated in all units of University. Thetarget of plantation has been given to each unit and accordingly 15000 plants have been planted in the University campus and different units. These plants are being cared by students and staff of the University.

**Mera Gaon Mera Gaurav:** An innovative initiative "Mera Gaon Mera Gaurav" has been planned to promote the direct interface of scientists with the farmers to hasten the lab to land process. The objective of this scheme is to provide farmers with required information, knowledge and advisories on regular basis by adopting villages.

The university has adopted the village Pachar under "Developing Smart Village Model to achieve objectives of Mission Antodaya" in compliance to Governer of Rajasthan. The University initiated a number of activities in this village with farmers, farm womaen, youth and children to make it smart. About 1000 trees have been planted in this village and also donate two bulls to the Gaushala of village.

A celebration of "Swachh Bharat Mission": All KVKs under Directorate of Extension Education, SKNAU, Jobner celebrating "Swach Bharat Mission". During this campaign, the premises of units cleaned and an oath was taken by employees to keep cleanliness.

**Solar dryerunit**: Solar dryer unit is working at KVK, Ajmer for processing of Ber ,aonla rose, Vegetables like carrot, cabbage, cauliflower spices like coriander, fenuegreek and rose petals dried in this unit to sold with colaboratin of FPO..

Use of ICT: Information Communication Technology (ICT) is being used by KVKs for their day to day activities like reporting (monthly, quarterly, half yearly and annual reports). KVKs dholpur is regularly uploading the activities conducted by them on KVK portal of ICAR. KVK Bharatpur and Dholpur launched a mobile app. This app will be useful for farmers for watching activities of KVKs and information related to weather, seed ,fertilizer can be accessed through this app. Agromet unit has also being working at KVK dholpur.

National Initiative on Climate Resilient Agriculture: (NICRA)" has running at KVK Bharatpur. Under the project, total 785demonstrations on various crops were undertaken by KVK, Bharatpur. Besidedemonstrations, KVK also runs activities like recharging of tube wells, compost making, plantation, roof water harvesting, green manuring, deep plouguing, crop Interventions such as INM, use of growth regulators & micronutrients drought & salinity resistance crops & varieties. KVK Bharatpur received the best NICRA award from ICAR—ICARDA in 2019.

**Seed hub at KVK Ajmer:** A seed hub has been created at KVK Ajmerunder NFSM project entitled "Creation of seed hub for increasing indeginous production of pulses in India".

**Diploma in Agriculture Extension Services for Input** Dealers **(DAESI):** One-year Diploma programme was started byfive KVKs (Ajmer, Kotputli, Dausa, Navgaon- & Alwar). The first DAESI programme is completed at KVK, Fatehpur-Sikar from Feb., 2018 to Jan., 2019. Diploma in Ag. Extension Services for Input Dealers (DAESI) was started with the help of MANAGE, Hyderabad. Under this programme, contact classes are being arranged on every Sunday at each KVK. The DEE also started its second batch in Nov 2020.

#### **6.6.4.5.** Innovation and Best Practices:

S.No	Name of	Innovation and Best Practices
	KVK	
1.	Ajmer	Model of azolla production technology

2.	Bharatpur	1.Recharge Tubewell Technique
	_ = ==================================	2. "Karn Narendra" Mobile App designed
3.	Dausa	1. Rain water harvesting structure has been strengthened and
		harvested rain water is used for seed production at KVK farm.
		2. Training on Value addition of pearl millet
4.	Dholpur	1. Buffaloes - Feeding Conc.+Green fodder+ Mineral Mix.+coco.
	1	Tab + prajna Cap.
		2. Calves - Colostrum feeding + benmith tablet
		3. Potato - Foliar spray of thoi-urea @ 100 ppm after 50-60 days
		after planting along with recommended dose of fertilizers (N 150 P
		80 & K 100 kg/ha ).
		4.Murra-Buffalo - Azolla @2 kg/day/head
5.	Fatehpur	1. Integrated Pest & Disease management - Awareness &
	(Sikar)	motivational programmes.
		2. Grass root innovators - Identification & Documentation.
		3. Cultivation of vegetables through hi-tech manner and dairy
		farming - Trainings, demonstration and exposure visits.
		4. Value addition to Aonla - Skill Trainings, exposure visits.
		5. Seed Production – Trainings & field visit
		6. Dairy and Goat Rearing - Breed improvement, feed & fodder
		management.
		7. Micro & mini irrigation system, rain water harvesting
		management- Trainings and field visit
6.	Kotputli	1. Scheduling of need based training- Need based through PRA and
	-	interaction with farmers, group discussions during field/ scientific/
		diagnostic visits.
		2. Job analysis of participants -Identification of participant groups
		facing similar problems during field visits, through
		communication means and off campus training programmes.
		3. Trainees' knowledge analysis -Through pre-evaluation using
		structured questionnaire.
		4. Training needs assessment -Pre and post evaluation through pre
		tested schedules.
		5. Preparation of Lesson plan -Collection of Technical information
		for dissemination of theoretical knowledge with scientific
		background and practical experience, also inviting resource person
		as per the requirement.
		6. Using Innovative Methodology in training programme -
		a. Pre evaluation
		b. Introduction
		c. Lectures through AV aids
		d. Method demonstrations
		e. Hands on training
		f. Post evaluation
		7. Impact assessment of FLDs/ adoption of new technologies -Pre
		and post evaluation of FLDs or practices through pre tested

		developed schedules.
		8. Whatsapp group of farmers -One Whatsapp groups of farmers are
		formed and farmers sharing their problems related to agricultural
		and KVK experts try to provide solutions.
7.	Navgaon	1. Mustard (ICM technology) - Use of basal sulphur@25kg/ha seed
		Treatment& replacement of old variety byNRCDR-2
		2. Wheat (ICM Technology using variety, INM and water mgt.) -
		Use of ZnSo4
		3. Chickpea(ICM Technology, using variety, seed treatment and
		IPM) - Rhizhobium inoculation in seed, Seed treatment with
		Carbendazim(2gm/kg seed) seed treatment with Trichoderma,
		Spray of Prophenophos (1.25ml/lt) at flowering
		4. Kharif onion Production Technology using INM &IPM - Use of
		100 Kg N+ 50 Kg P2O5 + 120 Kg K2O/ha. + 2 Spray of water
		soluble fertilizers NPK 13:00:45@ 10 gm / liter.
		5. Tomato Production Technology using INM &IPM - Use of insect
		net in Nursery, Use of 120 Kg+ 80 Kg P2O5 + 60 Kg K2O +
		Borax 5 Kg +Znso4 25 Kg / ha.+ 2 Spray of water soluble
		fertilizers NPK 19:19:19 @ 10 gm/ liter water.
		6. Brinjal Production Technology using INM &IPM - fruit borer
		management (Spray of Cypermethrin1.25ml.lt at
		flowering)Pheromen trap 10 + Yellow stick tap.
		7. Animal Husbandry Fodder production technology - Use of
		berseem as green fodder Use of Azolla in animal feed.
		8. Animal Husbandry - Use of mineral mixture+deworming for
		Anustrus management.
		9. Green gram ICM Technology, using variety(IPM2-14), seed
		treatment and IPM - Seed-15 kg, Thiram-30 gm, Rhizobium +
		PSB culture, ZnSo4 - 25 kg/ha, Pendimethalin-3.3 lit/ha.
		10. ChickpeaICM Technology, using variety(CSJ-515), seed treatment
		and IPM - Seed Treatment with Carbendazim+ Thiram,(1+2gm/kg
		seed ) Chlropyriphos 20 EC @800ml/100kg seed +Rhizobium +
		PSB culture 600+600gm/haSoil Treatment with Trichoderma
		2.5kg/ha with FYM, Spray of Profenofos @1.25ml/lit. of water,
		Farmers appreciated the variety &technology.
		11. Animal Husbandry - Reducing calf mortality.

### **6.6.4.6.** Consultancy/Certification/Testing:

Soil testing work is done by different KVK'S. A total of 2,05,670/- is generated during the reporting period. Seeds of improved varieties of different crops was produced at instructional farm of KVKs during the year 2015-2020 and sold to the farmers, Department of Agriculture, GoI and NGOs. About Rs.131.81 lakhs was generated during 2019 by the sale of seed vemicompost, farm produce and poultry. Pulse seed hub costing Rs. 150 lakhs has been sanctioned Under NHSF, GoI is working well at KVK Ajmer and Navgaon. The University scientists are also involved in PVTs for private companies. External fund generation through PVTs was 66.80 lakhs in year 201

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# **Staff Development**

#### 6.6.5. Faculty and Staff Development

#### 6.6.5.1. Recruitment and Promotional Avenue:

**Faculty:** The Umbrella Act and Statutes of all the 5 Agriculture Universities have been approved by Hon'ble Governor. The selection and appointments of teachers and officers (selection for appointment) have been done in accordance with the guidelines of Act, 1974 as amended from time to time and contained under Section 25 (2) of SKNAU, Jobner Act 2013. Any matter relating to the conditions of the service of teacher/officer for which no provision is made in these rules is determined by the Board of Management.

The recruitment and promotion procedures and policies are applicable under the provisions of SKNAU Act and Statutes. The pay scales for the faculty are in accordance of ICAR/UGC and other cadres of posts are as per that of the State Government.

Reservation for Schedule Caste, Schedule Tribes, Other Backward Casts and Special Backward Castes is kept in accordance with the policy and orders of the Government of Rajasthan.

Faculty is recruited from all over India through wide publicity in local and national newspapers. The applications received are screened by a screening committee constituted by the Vice Chancellor. For selection of a teacher or of an officer in the University, a committee of following is constituted:

- Vice Chancellor Chairman
- An eminent educationist to be nominated by the Chancellor
- An eminent educationist to be nominated by the State Government
- One member of the Board of Management to be nominated by the State Government
- One member nominated by the Board of Management
- Senior most Dean of the faculty
- Director of Research
- Director of Extension Education
- Head/Professor of the department concerned

External experts not connected with the university nominated by the Vice Chancellor out of a panel. The number of experts for different cadres is as follows:

Table-14: The number of expert for different category of posts

Category of post	No. of experts
Dean/Directors in the pay scale not lowe than that of the professor	3
Professor	3
Librarian	3
Associate professor/Assistant professor and any teacher in similar pay scale	2
Registrar/Dy. Registrar/ Asstt. Registrar or any other officer having equivalent	3

Pay scale	
Dy. Librarian/ Asstt. Librarian	2

The selection committee prepares a list of candidates selected by in order of merit and also a reserve list in the same order to the extent of fifty percent of vaccencies. The list along with its recommendations is forwarded to the Board of Management for final approval. The quorum required for the meeting of a selection committee constituted shall not be less than fiveout of which, at least two shall be the experts for the post of professor and Associate Professor and at least one expert for the post of Assistant professor or any other post of teacher equivalent there to. The quorum required for non teaching post shall be not less than one half of the numbers of the members of the selection committee out of which at least one shall be the expert. Reservation for schedule Caste/ Shedule Tribes and other backward classes is kept in accordance with the order of Govt. of Rajasthan for various categories at the time of direct recruitment and for promotion.

#### **Career Advancement Scheme**

#### **Career Development Plan including competence improvement**

The career advancement Scheme (CAS) of various cader of faculty is being implemented as per ICAR/UGC norms with the approval from the State Government. For faculty improvement, they are being encouraged to participate in various refresher course/ orientation programmes/ workshop/ conferences/ Seminars etc.The Directorate of Human Resource Development of the University conduct orientation / refresher training programme and winter / summer schools for faculty and associated staff. To promote academic excellence in teaching, research and extension , the university provides incentives and awards to the teachers , scientists and extension workers and associated staff.

#### **Faculty Assessment**

Every year an "Annual Performance Appraisal Report" and every month "Monthly work Report" for the performance of teachers with respect to teaching ( classes taken, innovations and contribution in teaching and participation in different examination, thesis guidance), Research (involment in research projects, other R&D activities, major research contribution, publications, etc.) Extension ( Training received and organized, development of A.V. Aids, extension publications, involment in field activities, transfer of technologies) and the development of work including resource generation and participationin co curricular activities and administration is evaluated by reporting officer, who grades the teacher as outstanding, very Good, good, average under different characters. The reporting officer after making entries in appropriate columns forwarded this APAR and MWR to reviewing authority. Any adverse comments in the APAR and MWR by any of the authority are communicated to the teacher for further improvement/corrective steps. Provision is made in the statues to deal with disciplinary cases, suitable punishment/penaltyin respect of students, teachers, officers and service personnel of any cadre.

**Technical and administrative staff:** Written examination and interview is conducted for technical and administrative staff as per rule of GoR.

**Supporting:** The recruitmentswas done in December 2017 for the faculty in last five year where 117 faculty and one matron and one book lifter were selected. Under CAS 15 faculty have been promoted.

# 6.6.5.2. Participation of Faculty in Symposia/Workshops/Symposia/ winter summer school/ Training/ Consultancy visit/ special assignment etc. year wise are as follows:

### (i) SKN College of Agriculture, Johner, COA, Lalsot, COA Bharatput, COA Fatehpur

Year & activity	Topic	Days and Date	Place	level	Faculty
2019-20		11.11			
Workshop	Annual Workshop of AICRP on Spices	4 days 13-16. Nov.2019	TNAU, Coimbator e (TN)	national	Dr. Dhirendra Singh, Dr. D. K. Gothwal, Dr. A. C. Shivran and Mr. G. L. Kumawat
Workshop	Annual Group Meet of Rape seed – Mustard	3 days 03-05. Aug.2019.	Birsa Ag. Agral University, Ranchi (Jharkhand	National	Dr. M.L. Jakhar and Dr. Priyanka Kumawat
Conference	Attended international conference on Innovation in Plant and Animal Sciences for Suastainable Agricultureand Rural Devbelopment (IPASSARD 2019)	03 days 07-09 Dec.2019.	SKNAU, jobner	International	Dr. Varsh Kumari, Dr. Priyanka Kumawat, Dr. S.P. Singh, Dr. D. K. Gupta
National Symposiu m	"Nematodes: A Threat to Food Security and Farmer's Livelihood"	03 days 11-13 Dec.2019	Manipur University Imphal	National	Dr. HemRaj Gurjar,Dr.B. S. Chandrawat
Orientation Programme	Orientation Programme	21 days 14Aug. to 03 Sep. 2019	SKNAU, Jobner	University	Dr. D.K. Meena, Dr. Jitendra singh ,Dr. Rahul Kumar, Dr. Arvind Kr. Yadav Dr. Naveen Chand Pant , Dr. Rahul

Winter	"Harnessing new generation green technologies from plant, microbial and waste sources for sustainable	21 days Dec. 26, 2019 to Jan. 2020.	ICAR- Indian Agri. Research Institute	National	Kumar Dr. C.D. Mishra, Dr. Kailash Chandra& Sh. Hanuman Singh Jatav,Dr. M.A. Khan, Dr. Subhita Kumawat Dr. S.S. Sharma Dr. Chiranjeev Kumawat Dr.B.S. Chandrawat
	crop, environmental and human health" organized by Division of Agricultural Chemicals,		(IARI), New Delhi		
Training	FDP course on LaTeX Scilab and PHP & MySQL	15 Days 20 April to-04 May, 2020	Jawaharlal Nehru University	National	Dr. Suresh Sharma Dr. Pratibha Manohar
CAFT training	Assessing Soil Plant Atmosphere Continuum (SPAC) for Enhanced Input Use Efficiency	21 Days 1-21 Dec2019	Punjab Agriculture University, Ludhiana	National	Dr. Chiranjeev Kumawat
Winter school	Advances in Organic Manure Production and Biogas Technology for Entrepreneurial Development and Empowerment of Farmers	21 Days 08-28 Nov. 2019	SKNAU "Jobner	National	Dr. Rajhans Verma
CAFT Training	"Prospects of Emerging Agro-based Processing Techniques and Business Opportunities"	21 Days 14 Nov 04th Dec, 2019.	ICAR- Central Institute of Agri.Engi., Bhopal	National	Dr.WandkarS achin Vilas
COA Lalsot	"Safe and sustainable	21 Days	GBPUAT,	National	Dr.B.L.Meen
training	Agriculture for	4-24 Feb.	Pantnagar		a

	enhanching the factor productivity of cropsmand cropping system	2020			
Annual Group meeting	AICRP-IFS	3days 27-29 Nov. 2019	JAU, Junagadh, Gujrat.	National	Dr. B.L. Meena
Internation al conference s	"Innovation in plants and animal sciences for sustainable agriculture development"	07-09 Dec., 2019	SKNAU, Jobner	International	Sh. Ravi Kumar Meena
seminar	Smart Horticulture	30-31 Jan. 2020	College of Hort. Forestry, Jhalawar,	National	S.K. Bairwa
COA Bharat	<b>4</b>		Ţ		
Conference	Global perspective in agricultural & applied sciences for food and environmental security" (GAAFES-2019)	1-2 Dec. 2019.	Kumaun Univ. Nainital (UK)	National	Dr. Devendra Kumar Meena
Conference	"Science and Technology for Ensuring Food & Nutrition Security (GMAT 2019)	1-3 Dec. 2019.	National Research Centre on SeedSpic es, Ajmer	National	Dr. Sweta Singh
Conference	"Innovation in Plant and Animal Sciences for Sustainable Agriculture & Rural Development"	7-9 Dec. 2019.	SKNAU, Jobner	International	Dr. Jitendra Singh
Conference	Agricultural Economics Research	17 - 19 Dec. 2019	PAU, Ludhiana	National	Dr. Sheela Kharakwal
Orientation Programme	Orientation Programme	6 -26 Feb, 2019.	SKNAU, jobner	University	Dr. Sheela Kharakwal Dr. Sweta Singh
RARI, Durga					
Workshop	Annual Group Meet of AICRP chickpea	Aug 2019	ICAR- IIPR Kanpur and BAU Ranchi	National	Dr. L. D. Sharma, Dr. K.C. Gupta Dr. Vipin Kumar & Dr Nitin Chawala
Conference	Innovation in plants and animal science for sustainable agriculture and	7 -9 Dec. 2019	SKNAU, Jobner	International	Dr. K. C. Gupta, Dr. Vipin

	Rura Development				Kumar, Dr. S. K. Jain, Dr. Nitin Chawala, Dr. S S Shekhawat, Mr Jogendra Sing, Dr Rani Saxena, Dr B L Jakhar
Conference	Pulses as the climate sr crops:Challenges opportunities (IC Pulses 2020)	Feb. 2020	at Bhopal	International	Dr. S.K. Jain
Congress	"crop protection to outsmart climate change for food security Environmental conservation"	Aug 2019	ICRISAT , Hydrabad	International	Dr. Vipin Kumar
Workshop	Annual Group meet of A Legume	May 2020	Acharya N.G.Ran ga Agricultu ral Universit y Guntur (A.P.)	National	Dr. S S Shekhawat, Dr. O P Meena, Mr Ashok Meena
Workshop	Annual Group Meeting of AICRP- National Seed Project (Crops)	14th –15th May, 2020	Video conferenc ing	National	Dr. A C Mathur and Mr Jogendra Singh
Workshop	58th All India wheat and barley research workers meet 2019		Video conferenc ing	National	Dr P S Shekhawat, Dr Hoshiyar Singh, Dr S P Bishnioi, Dr S S Rajput,Mr M. R. Yadav and Mr Nitin Garg
Workshop	Annual Group Meet of AICRP-Integrated Farming Systems	26-28 Nov. 2019	Junagarh, (Gujrat).	National	Dr. R. K. Sammuria
CAFT training	"Physiological and biotechnological	03-23 Jan ,2020.	RARI, Durgapur	National	Dr. Joginder Singh

	interventions towards climate resilient agriculture"		a		
Orientation Programme	Orientation Programme	6-26 Feb ,2020.	SKNAU, Jobner	University	Mr M R Yadav,Dr Shweta Gupta,Dr Pratibha Singh,Dr Niting Garg, Dr. Joginder singh
	griculture, Fatehpur	T			
Internation al Webinar	Genomics for food, health and nutrition"	14.05.2020	ICRISAT Hyd.	International	Dr. S. C. Mahala & Dr. Mujahid Khan
Orientation Programme	Orientation Programme	6-26 Feb 2020.	SKNAU, Jobner	University	Dr. C.D. Mishra, Dr. Kailash Chandra& Sh. Hanuman Singh Jatav, Dr. M.A. Khan, Dr. Subhita Kumawat
Workshop	Annual Group Meeting of AICRP on Agroforestry	18-20 Sept.2019	TNAU Coimbato re	National	Dr. B.K. Tripathi and Dr. Ramu Meena
Summer School	"Soil Health Management and Plant Nutrition under Changing Climate Scenario",	2-22 Sept, 2019	RARI, Durgapur a	National	Dr. Lokesh Kumar Jat, Asstt. Prof., Soil Sci. Dr. Vishnu ShankerMee na, Asstt. Prof., Agril. Economics
Winter school	"Advance technologies for Biofertilizers and Biopesticides Production for Profitable and Sustainable Agriculture	08-28 Nov. 2019.	MPUAT, Udaipur	National	Dr. HemRaj Gurjar

Orientation Programme	Orientation Programme	14 <sup>th</sup> Aug to 3 <sup>rd</sup> Sept., 2019	SKNAU, Jobner	University	Dr. Niranjan Kumar Barod, Dr. Suresh Kumar,
CAFT ,Training	"Agronomic Interventions for augmenting food, nutrition and farmers income"	20 <sup>th</sup> Nov. to 10 <sup>th</sup> Dec. 2019	GBPUA &T, Pantnaga r	National	Dr. InduBalaSeth i,
Orientation Programme	Orientation Programme	06 <sup>-</sup> 26 Feb., 2020	SKNAU, Jobner	University	Dr Indu Bala Sethi,Dr. Lokesh Kumar Jat,. Dr. Deepak Gupta,
2018-19SKN	College of Agriculture, Job	oner		I	1
Conference s	Climate Change: Plant, People and Planet	2 days 16-17, feb.2019	Associati on of plant Science Research ers, Dehradoo n, Uttarakha nd, India	National	Dr. Rajhans Verma
Workshop	Workshop on EL unit Review	02 days 25-26 May2018	ICAR at YSPUH, Nauni, HP	National	Dr Mahesh Datt
Seminar	Agriculture resource Mgt.for Sustainabilty and Eco Restoration	04 days 23-26 Nov,2018	ISA,New Delhi	National	Dr S.S. Yadav Dr L.R. Yadav Dr A C. Shivran Dr B.L. Dudwal
Congress 2019	Indian Horticulture Congress 2019	5 days 17-21 Jan. 2019	The Horticult ural Society of India	Internationa 1	Dr. S.P. Singh

Congress	First Vegetable Congress on Emerging Challenges in Vegetable Research and Education (VEGCON-2019	03 Days 01-03 Feb. 2019	ISVS, Varanasi (U.P.) & A.U. Jodhpur	National	Dr. S.K. Bairwa
XXI Biennial National Symposiu m	XXIBiennial National Symposium on "Doubling Farmers' Income Through Agronomic Interventions Under Changing Scenario"	03 Days 24-26 Oct.2018	Rajasthan College of Agricultur e, MPUAT, Rajasthan	National	Dr. B.L. Meena
Internation al Conference	International Conference on Global Research Initiations for Sustainable Agriculture and Allied Sciences	03 Days 28-30 Oct. 2018	Astha Foundatio n, Meerut and RARI, Durgapura	International	Dr. K.K. Sharma, Dr. S.K. Jain & Dr. S.S. Sharma
Workshop	Working group meeting for development of short term certificate course in gardening	05 Days 25 Feb 1 Mar. 2019	PSS Central Institute of Vocationa l Education, NCERT Bhopal	National	Dr. Uadal Singh
Workshop	Integrated farming system	04 Days 20-23 Dec. 2018	UAS, GKVK, Bengaluru	National	Dr. B.L. Meena
Workshop	Quantitative Farming system typologies application with the 'R' statistical computing software	05 Days 03-07 Sept.,2018	ICAR- IIFSR- SIMMYT Joint workshop Agri.Univ. Kota	National	Dr. B.L. Meena
Training	Recent Plant Health Techniques used in plant protection	10 days 16-25 July 2018	ICAR, RARI, Durgapura , Jaipur	National level	Dr. S.S. Sharma & Sh. R.K. Meena
Orientation Programme	First Orientation Programme	21 Days 04-24	Directorat e of	State	Dr. R.C. Asiwal and

		Sept.,2018	Human Resource		Sh. Omprakash
			Developm ent, SKNAU, Jobner		Omprakasii
College of A	griculture, Fatehpur		Jooner		
Internation al Confrence	2 <sup>nd</sup> International conference on <i>Advances</i> in <i>Agricultural</i> , <i>Biological and applied Sciences for sustainable future</i> (ABAS-2018) at Meerut,	3 Days 20-22, Oct. 2018	Agricultur al Technolog y Developm ent Society (Regd.)M uradnagar, Ghaziabad , Utter Pradesh	International conference	Kailash Chandra, Hanuman Singh Jatav, M.A. Khan, C.L. Khatik
Internation al conference	GRISAAS-2018, International conference on Global Research Initiative for Sustainable Agriculture & Allied Science	03 Days 28-30 Oct 2018	Astha Foundatio n at RARI, Jaipur, Raj	International conference	M.A. Khan
National conference	National conference on Smart Agriculture and Food Security	3 Days 18-20 Jan. 2019	JNU, Jaipur, Rajasthan	National conference	M.A. Khan
SKN AgriBu	isiness Management Colleg	e,Jobner	,		
Conference s	Status and scope of Organic Farming	3 Days October 24-26, 2018	Indian Society of Agronomy , New Delhi & MPUAT, Udaipur	National	Dr. A.K. Gupta Professor & Dean
Workshop	Innovation and Incubation Induction Workshop under RKVY-RAFTAAR	3 Days 11-13 Feb., 2019	Pusa Krishi Incubator, ZTM-BPT at IARI, New Delhi	National	Dr. R.N. Sharma, Asstt. Professor (Pl. Pathology)
Training	Conducted Special NSS training Camp on 'Health, Hygiene &	7 Days 8-14 Mar.,2019	NSS Unit, SKNCAB M, Jobner	Regional	Dr. R.N. Sharma, Asstt.

	Swachhta'				Professor (Pl. Pathology)
2017-18					
SKN College	of Agriculture, Jobner				
Conference	International Conference – Agrichture, Horticulture and Plant Science	2 Days 24-25 June, 2018	ICAHPS- 2017, Serials Publicatio n, New Delhi	International	Dr. S.K. Khinchi
Seminar	Seminar on Sustainable Agricultural Practices for seed spices	2 Days 24-25 Feb 2018	NRCSS, Tabijji, Ajmer	National	Dr. Dhirendra Singh
International Conference	ISMPP International Conference	1-4 Nov.,201 7	Departme nt of Botany, Jaipur and ISMPP, Udaipur held at Botany Departme nt, UOR, Jaipur	International	Dr. Shailesh Godika Dr. Pratibha Sharma
Workshop	Annual Meeting of American Phytopathological Society on "Changing Landscapes of Plant Pathology"	5-9 Aug, 2017	San Antanio, Texas	International	Dr. Pratibha Sharma
International Conference	International Conference on "Advances in Agricultural and Applied Sciences for Promoting Food Security	13-15 May, 2017	Battishput li, Kathmand u, Nepal.	International	Dr. B.S. Chandrawat
Workshop	Annual Workshop of AICRP on Spices	04 days 09-12 Oct 2017	AICRP on Spices at Guntur	National	(Dr Dhirendra Singh, Dr D. K. Gothwal, Dr A. C. Shivran, Dr G. K. Mittal,

					Dr RN Sharma)
Meeting	Meeting in connection with the World Spices Organization, scientists of AICRP on Spices and IISR.	14 Jun, 2017	Indian Institute of Spices Research, Kozhikod e (Calicut)	International	Dr Dhirendra Singh, Sr. Breeder,
Workshop	The workshop of WTO STDF interactive workshop/ meeting in capacity building in SPS in seed spices	19 May 2017	NRCSS, Tabiji Ajmer.	National	Dr Dhirendra Singh, Sr. Breeder,
Workshop	XXVIII annual workshop on AICRP on Spices	09-12 Oct.,2017	Dr YSR Horticultu re University , Guntur, Andraprad esh	National	Dr G K Mittal
Workshop	XIX group meeting on ICAR and Network coordinator of AINP on SAP	19 <sup>th</sup> - 20 <sup>th</sup> June,201	UHFU, Ranichaur i (Uttarakha nd)	National	Dr. Pratibha Sharma
Workshop	XX grup meeting on ICAR and Network coordinator of AINP on SAP	05 <sup>th</sup> Feb,2018	Departme nt of Entomolo gy, RARI, Durgapura , Jaipur	National	Dr. Pratibha Sharma
Workshop	Positive Attitude for Better Performance	02 Aug,2017	Extension Education Institute, AAU, Anand held at Departme nt of Ext. Education, SKNCOA	National	Dr Shailesh Godika
Workshop	XXI Research workers group meeting of All India cordinated Research project on Arid Zone Fruits	3 Days 5.3.2017t o 7.3.2017	CIAH, Bikaner	National	Dr.D.L.Bag di
Workshop	Sustainable	24-25	NRC on	National	Dr. S.P.

	Agricultural Practices for Seed Spices	Feb. 20018	Seed Spices		Singh
Winter school	Winter school training programme	30 Nov 201720, Dec., 2017	TNAU, Coimbator	National	Dr. S.K.Khinchi
CAFT Training	Application of Molecular Markers for assessment of genetic purity and crop diversity	01-21 Nov., 2017	CAFT on Biothechn ology held at RARI, Durgapura	National	Dr G.K. Mittal
Winter school	Recent advances in Production, Protection and Processing (PPP) technologies of underutilized and exotic horticultural crops	01-21 Nov, 2017.	Departme nt of Hort., SKNAU, Jobner- Jaipur, (Raj.)	National	Sh. S.K. Sharma Dr S.P. Singh Dr O.P. Gahrwal
Winter school	Recent Technology improvement of vegetables Crops under Temperate Condition	12-21 March 2018	SKUAST, Srinagar &ICAR	National	Dr. L. N. Bairwa
CAFT Training	Technological advances and productive strategies in organic agriculture and their internationalization with agro eco system	21 Days 09-29. Jan.2018	JNKVV, jablapur	National	Dr. Rajhans Verma
Training	Promotion of PPP under Extension reform	4 Days 0104, Aug. 2017	SKNAU & EEI, Anand	Regional	Dr. S.P. Singh Dr. O.P. Garhwal Dr Pratibha Manohar Sh. S.K. Sharma
Review Meeting	Spices & Aromatic Plants under Mission for Integrated Development of Horticulture (MIDH) implemented through the Directorate of Arecanut and Spices Development, Calicut.	02 days 12 <sup>th</sup> - 13 <sup>th</sup> May, 2017.	Choudhar y Charan Singh Haryana Agri. University , Hissar.	National	Dr Dhirendra Singh, Sr. Breeder,

Conference	The third International Conference on Bioresource & Stress management	8-11 Nov, 2017	RKM foundation , Kolkata, Society of Bioresour ce and stress manageme nt, Visva- Bharti University , Orissa & ICAR, New Delhi	International	Dr. K.K. Sharma & Dr. S.K. Bairwa
Conference Conference	International Conference on Conservation and Management of Agricultural Natural Resources: Strategies for food security in developing countries	8-9 Nov, 2017	School of Agricultur al Sciences, Career Point University , Kota	International	Dr. B.L. Meena Dr. R.S. Saini
Workshops	Annual Group meet AICRP-IFS	3-5 Nov, 2017	AICRP- IFS, Modipura m and SKNAU, Jobner	National	Dr. B.L. Meena
Workshops	Annual Group meet AICRP-RM	3-5 Aug, 2017	ICAR- DRMR, Bharatpur and RARI, Durgupura (Jaipur)	National	Sh. R.K. Meena
Training	Presentation Skills Using Power Point	9-11 Aug, 2017	HCM Rajasthan State Institute of Public Administr ation, Jaipur	State Level	Dr. S.K. Bairwa & Dr. B.L. Meena
	f Extension Education				
Conference s	KVK's National Conference	16-17 Mar.2018	IARI and Ministry of Agri.	National	Dr. G.S. Bangarwa& Dr.Amar

					Singh,Dr.Sh ashi Verma, Dr. Juned Akhtar
Workshops	Annual Zonal Review Workshop of KVKs	10- 12.7.2017	Junagadh Agri.Univ. Junagadh	National	Dr. G.S. Bangarwa, Shashi Verma, Dr. Lala Ram
Workshops	Skill Development in Agriculture	18.8.2017	SIAM, Durgapura , Jaipur	Zonal level	Dr. G.S. Bangarwa
Workshops	Re-orientation programme for SMS (Ag. Ext)	21.9. 2017	ATARI, Jodhpur	Zonal level	Dr. G.S. Bangarwa
Workshop	Seed hub and Pulses Breeder Seed Projects	07.11.2017	ICAR- Indian Institute of pulses Research, Kanpur	National	Dr. G.S. Bangarwa
Winter School	Winter School Conservation and promotion of Indigenous breeds of Live Stock	30 Oct - 19 Nov2017	RAJUVA S	National	Dr.Vikas Kumar
Trainings	Promotion of Public- Private Partnership under Extension Reforms	01-04 Aug.2017	EEI, Anand at DEE, SKNAU, Jobner	State	Dr. Dilip Singh and K. A. Meena
Trainings	Training Programme on Production Technology of Kharif oilseeds	08-09 Aug.2017	ATARI, Jodhpur	National	Dr. Dilip Singh, Dr. LalaRam
Trainings	Training Programme on Production Technology of Pulses under NFSM	30-31 Oct 2017	ATARI, Jodhpur	National	K. A. Meena, Dr. D. R. Sharma, Dr. K.A. meena
Training	Proper Handling of Mini Soil Testing Machine	19-20 May2017	ATARI, Jodhpur	Zonal level	Dr. Lala Ram
Training	Training of trainer for skill development training (ASCI)	04- 06 Jan2018	IGKV, Raipur- Chhatigarh	Zonal level	Dr. B.L. Asiwal
Others					
Training	Farmer's Innovation Day"	23 Sept. 2017	CAZRI, Campus	National	Dr. G. S. Bangarwa

Training	Creation of Pandit Deen Dayal Upadhay Kaushal Vikas Kendra at KVKs	23 Nov 2017	Pant Krishi Bhawan, Jaipur	Regional	Dr. G. S. Bangarwa
Training	seminar on Agriculture and AH	03 Oct 2017	Bharatpur	Regional	Dr. Amar Singh
Training	RC and EEC Meeting	27 Oct 2017	SKNAU, Jobner	State	Dr. Amar Singh
2016-17					
	ge of Agriculture, Jobner				
winter school	"Abiotic and Heavy metal stress management in crops through physiological, phytoremediation and proximate sensing approaches"	21 Days (02-22 Sept,2016	Assam Agril. Univ., Jorhat	National	Dr. D. L. Bagri
winter school	Efficiency Centric Agro-management for Food and Nutrient Security"	Sep28- Oct18, 2016	GBPU&T, Udham Singh Nagar, Uttrakhand	National	Dr. Vipen Kumar
CAFT training	"Effect of Climate Change on the Incidence of Insect-Pests"	04-24, Nov 2016	G GBPU&T, Udham Singh Nagar, Uttrakhand	National	Dr. Akhtar Hussain
CAFT training	"Advances in Production Technology of Commercial Vegetable Crops"	08-28 Nov, 2016	Parmar Y.S. Univ. of Horticultu re and Forestry, Nauni, Solan	National	Dr. S.P. Singh
Training	" Ecological Agriculture for Sustainability"	Feb9- March 01, 2017	GBPU&T, Udham Singh Nagar, Uttrakhand	National	Dr.B.L. Dudwal
CAFT training	Adoption of Suitable Conventional and Biotechnological Approaches for Biotic and Abiotic Stress Management in Crops"	Feb13- Mar 05, 2017	GBPU&T, Udham Singh Nagar, Uttrakhand	National	Dr.Mittal G.K

National seminar	planting material production in spices	21-22 April, 2016	DASD, Calicut	National	Dr. Dhirendra Singh	
Internation al Conference	"Nutraceuticals and Functional Foods-The challenges and Opportunities"	6-8 Dec. 2016	Anand Agril. Univ., Gujrat	National	Dr. Girish Mittal	
Internation al Congress	'Agronomy for Sustainable Management of Natural Resources, Environment, Energy and Livelihood Security to Achieve Zero	22-26 Nov, 2016	IARI, New- Delhi	National	Dr.A.C.Shiv ran	
Workshop	27th All India Coordinated Research Project on Spices	24 Oct, 2016	NRCSS, Tabiji, Ajmer	National	Dhirendra Singh, Gothwal D. K., Shivran A. C., Mittal G. K. and Sharma R.N	
Workshop	Annual workshop on rapeseed mustard	5-8 Aug, 2016	PDUPCV U, Mathura, Uttar Pradesh.	National	Dr. Parvatee Deewan	
Training	Organization of Farmers training on Seed Spices production	22-28 March, 2017	SKNCO, Jobner	National	Dhirendra Singh, A. C, Shivran, D. K. Gothwal and G. K.Mittal.	
COA Lalsot						
Training	A New Dimension in Agro- Meteorology for Improvement of Agromet Advisories: Capacity Building"	6-15, Feb, 2017	RARI, Durgapura	National	Dr.M.L.Mee na Dr. B.L Meena	
COA, Fatehr		22.26	TADI	lar,		
Internation al Congress	Agronomy for Sustainable management of natural resources, environment, energy and livelihood security to achieve zero hunger challenge	22-26, Nov, 2016	IARI, New Delhi	International	Dr. Harphool Singh	
KAKI, Durga	RARI, Durgapura					

Workshop	IV Biennial Workshop of AICRP on IFS	20-23, Dec,2016	SKUAS& T, Jammu	National	Dr.R Sammauria Dr. O.P. Yadav
Training	Laboratory Quality System Management and Internal Audit"	2-7, Jan, 2017	NIPHM, Hyderaba d	National	B.N. Sharma
	of Extension Education				
Winter school	"Use of ICT in Education and Rural Development"	09-29, Nov,2016	Directorat e of Ext. Education, SKRAU, Bikaner	National	Dr.D.S Bhati Dr. Ramakant Sharma
Internation al Congress	Agronomy for Sustainable management of natural resources, environment, energy and livelihood security to achieve zero hungerchallenge"	22-26, Nov, 2016	ICAR- IARI, New Delhi	International	Dr.B.L.Jat
2015-16					
	e of Agriculture, Johner	1	1		
Workshop	22 <sup>nd</sup> Annual Workshop of Rapeseed & Mustard	3-5. Aug. 2015	SIAM, Jaipur	National	Dr. M L Jakhar
Workshop	"XXVI Workshop of ICAR-AICRP on Spices"	5-7, Oct., 2015	Kozhikod e (Kerala)	National	Dr. Dhirendra Singh, Dr. D K Gothwal, Dr. A. C. Shivran and Dr. G K. Mittal
Internation al congress	International Plant Physiology Congress	11-14, Dec, 2015.	JNU, New Delhi	International	Dr. M.L. Jakhar
National Seminar	"New Dimentional Approaches for Enhancement of Seed Spices Productivity and Profityability under Era of Climate Change"	2-3 Feb, 2016	NRC Seed Spices,Aj mer	National	Dr. Dhirendra Singh, Dr. D K Gothwal, Dr. A. C. Shivran and Dr. G K. Mittal
Seminar	Planting Material Production in Seed Spices"	21-22, April, 2016	Khozikod e (Kerela).	National	Dr. Dhirendra Singh

COA Lasot					
winter school	Innovative approaches for Agriculture knowledge management	14 january –Feb3 <sup>rd</sup> 2016	GBPUAT Pantnager	National	Dr. B.L. Meena
winter school	Soft and Enterpreneurial skills for development of Agriculture Sciences	13 Nov - 3 <sup>rd</sup> December 2016	IIHR, Bengulara	National	Dr. S.K.Bairwa
COA Fatehp	our				
Workshop	AICRP on Seed Technology Research	April 19- 21,.2016	KAU, Cochin, Kerela	National	Dr. S.S.Bareth
Workshop	AICRP on seed spices	Oct. 4-7, 2015	Indian Institute of Spices Research, Calicut, Kerala	National	Dr. Dhirendra Singh/ Dr. D.K. Gothwal/ Dr. A.C. Shivran/ Dr. G.K. Mittal
workshop	22 <sup>nd</sup> Annual workshop of rapeseed & mustard at SIAM, Jaipur	Aug. 3-5, 2015	SIAM, Jaipur	National	Dr. M L Jakhar
congress,	International plant physiology congress, JNU, New Delhi	Dec 11- 14, 2015	JNU, New Delhi	International	Dr. M.L. jakhar Dr. R.S.Sain Dr. N.K. Gupta
Directorate of	of Extension Education				
zonal workshop	Sensitization zonal workshop cum training programme on pulse production technology for KVKs of ZoneVI	<del>-</del>	KVK, Navgaon	Zonal	Dr. Vikas Arya
Zonal workshop	Zonal workshop of KVKs	23-24 May 2015	KVK, Navgaon	Zonal	Dr. M.P.Yadav
conference	National conference of KVks	25-26 July 2015		National	Dr. M.P.Yadav
National conference	National conference on KVKs	25-26 July, 2015		National	Dr. G.N. Mathur
Workshop	Monthly workshop	28 Oct., 2015	KVK Ajmer	Zonal	Dr. R.K. Sharma
Training	Training on advanced technology for pulses	11-12 Dec, 2015		National	Dr. Dinesh Arora
Seminar	National Seminar on	2-3		National	Dr. Dinesh

	new dimensional approaches for enhancement of seed productivity and profitability under era of climate change	Feb'2015			Arora, Dr. S.K. Sharma, Dr. R.K. Sharma
Workshop	Workshop on small enterprises in micro biology	15-16 Feb, 2016		National	Dr. G.N. Mathur, Dr. Dinesh Arora
Training	Training on advance production technology of oilseed crops	28-29 Mar,2016		National	Dr. Dinesh Arora
Summer School	Analytical Techniques for Decision Making in Agriculture (Summer School)	16-07 to 05-08- 2015		National	Sh. B. L. Asiwal, SMS
Conference	National Conference of KVKs	25 to 26- 07-2015		National	Dr. Juned Akhtar
Training	Multi-pronged Extension Management Strategies for Dryland Agricultural Development with special reference to promoting Climate Resilient Agriculture	05 to 25- 08-2015		National	Dr. Lalaram, SMS
Workshop	Zonal Sensitization Workshop cum Training Programme on pulses production Technology for KVKs	11-12 Dec, 2015	KVK Fatehpur	Zonal	Sh. B. L. Asiwal,SMS
Workshop	Annual workshop of IFS	16-18 Dec.,2015		National	Dr. Lalaram, SMS
Workshop	Annual Workshop NICRA	5-6 May 2015	KVK bharatpur	National	Dr. Amar Singh
Workshop	Anuual Zonal workshop of KVK	23-25 May 2015		Zonal	Dr.Amar Singh
Workshop	Annual group meeting Rapeseed & Mustard RARI,Durgapura	3-5 Aug, 2015	RARI, Durgapura	National	Dr. Amar Singh
Conference	9 <sup>th</sup> National Conference KVK,PATNA	24-25 July 2015	KVK Patna	National	Dr. Amar Singh
Training	One week training programme on "Organic Farming & Sustainable Agriculture"	15-21 Dec., 2015		National	Sh.Krishna Avatar Meena

Workshop	Two days Workshop on "Use of Technical Terminology in Higher Education	27- 28March 2016		National	Dr. Dilip singh
Workshop	Participation in National Annual Zonal workshop of Krishi Vigyan Kendra's	2-5 May 2016	KVK Patna	National	Dr. Dilip Singh
Summer School	Entrepreneurship Development Programme (ICAR Summer School)	8-28 Jul, 2015-	ICAR	National	Dr. Babita
Winter School	Abiotic and biotic stress management in vegetable crops (ICAR Winter School)	8-28 Oct., 2015	ICAR	National	Dr. S.K.Bairwa
Winter School	New paradigm of disease management, conventional & Molecular approaches for mustard production (ICAR Winter School)	9-29 Dec.,2015	ICAR	National	Dr. B.L.Jat
Winter School	New paradigm of disease management, conventional & Molecular approaches for mustard production (ICAR Winter School)	9-29 Dec.,2015	ICAR	National	Dr. R.L.Meena
Conference	National Conference on seed spice production, productivity and quality	2-3 Feb., 2016		National	Sh. M.R.Dhakad
Conference	25 <sup>th</sup> National Conference on natural resources in arid and semi arid eco-system for climate resilient agriculture & rural development	17-19 Feb., 2016		National	Dr. B.L.Jat Dr. J.K.Gupta

#### 6.6.5.3. Incentives for Excellence/Faculty Recognition.

The University is promoting excellence in faculty and staff by means of recognition. The university has its own mechanism of recognition of best performing faculty and other staff on the occasion of Republic Day and Independence Day. The screening committee has been formed by the Vice Chancellor headed by a

senior Dean/ Director of the University. Applications are invited from the respective units through their Heads. After scrutinizing the application s the selected faculty / staff has been recognized.

Table-15: List of faculty got recognition having research project more than 50 lakhs on the occasion of Republic day in 2017

S. No.	Name of faculty	Unit
1.	Dr. V. K. Yadav	Directorate of Research, SKNAU, Jobner
2.	Dr. Neelam Yadav	Directorate of PM&E, SKNAU, Jobner
3.	Dr. N.K. Sharma	Directorate of Extension Education, SKNAU, Jobner
4.	Dr. A.C. Shivran	Professor, Agronomy, SKNAU, Jobner
5.	Dr. S.S. Yadav	Professor, Agronomy, SKNAU, Jobner
6.	Dr. S.S. Manohar	Professor, Agronomy, SKNAU, Jobner
7.	Dr. R.P. Jat	Professor, LPM, SKNAU, Jobner
8.	Dr. Upendra Singh	Asstt. Professor, Ag. Engineering, SKNAU, Jobner

Table-16: List of faculty got recognition having research project more than 20 lakhs on the occasion of Republic day in 2018

S. No.	Name of faculty	Unit
1.	Dr. N.K. Gupta	Prof. Plant Physiology SKNAU, Jobner
2.	Dr. Rani Saxena	Asstt. Prof. Agronomy, SKNAU, Jobner
3.	Dr. B.L.Jat	Prof. Entomology, SKNAU, Jobner
4.	Dr. Mahesh Datt.	Prof. LPM, SKNAU, Jobner

Table-17: List of faculty got recognition to release new variety on the occasion of Republic day in 2019

S. No.	Name of faculty	Variety		
1.	Dr. S.S. Shekhawat Dr. Ved Prakash	Cluster bean RGR-12-1, Lobia CPD-119		
2.	Dr. Ved Frakash  Dr. S.S. Rajput	Barley RD 2899, RD 2907		

3.	Dr. L.D.Sharma	Pearl millet RHB-223

Padam Bhushan Dr. R.S. Paroda Best Scientist Award was initiated in 2020 for the outstanding contribution of the scientist in the field of agriculture among state agriculture university. The applications are invited by wide circulation through Registrar office of this University. The applications are scrutinized by selection committee constituted by Vice Chancellor outside the University. The first recipient of this award is Dr. N.K. Gupta Prof. Plant Physiology, SKNAU, Jobner

#### 6.6.5.4. Capacity Building and Training:

Table: 18. Training/seminar/workshops organized by SKNAU, Jobner

2015-16				
S.No.	Title	Date	Durations (Days)	No. of Participants
1.	Foundation course on Basics of Computer and its applicatios	July 27 to Aug 1,2015	06	25
2	Organic Farming and Sustainable Agriculture	Nov, 2015	07	20
3.	Strategies for Promoting Farmer ProducerOrganization	Dec 9-11,2015	03	22
4.	Utilization of social Media in National Agriculture Research System	2-3 Dec., 2015	03	18
5	Training on Administration and Financial Management	14-19 Dec., 2015	03	25
6.	National Conference on Geo-spatial Applications in Agriculture	4-6, Feb., 2016	03	70
7.	"Molecular Approaches in Seed Technology" Seed quality and Varietal Characterization"	19-25 Feb., 2016	07	18
2016-17			•	
1.	Training on "New Dimensions in Agro meterology fot improvement of Agromet Advisory	Feb 6-15,2017	10	30
2.	"Azolla and vemicompost production Technology	March 1-3, 2017	03	25
3.	Digital payment and online Cashless Payment Module(Training)	10.01.2017	01	17
4	Implementation of PG regulation in Post graduate/Ph.D teaching and	20.01.2017	01	25

	Research programme			
5.	Personality Development and	27 Jan.	01	45
3.	1	2017	01	43
6.	Employment opportunities	10	01	35
0.	Cyber crime and Security	_	01	33
7	A1 ' ' ' ' ' ' (5) 11' I	Mar., 2017	0.1	10
7.	A brain storming session "Doubling Income	28	01	18
	of Farmers by 2020"	Mar., 2017	0.	20
8.	Foundation course on Statistical	4-10	07	20
	Analysis System	Feb., 2017		
2017-18				
1.	Annual Group Meet of AICRP on	Aug. 01-03,	03	75
	Rapeseed & Mustard	2017		
2.	Annual Group Meet of AICRP on	Nov. 03-05,	03	70
	Integrated Farming System	2017		
3.	Digital payments and Cyber Security'	June 23-24,	02	25
		2017		
4.	"Digital Payment and Cyber Security"	July10,.2017 at	01	50
		College of		
		Agriculture,		
		Lalsot.		
5.	A training on Academic Information	July24,2017	01	27
· .	Portal	1,2017		
6.	A training programme on	Sep17,.2017 at	01	30
	"Digital payments and Cyber Security"	COA, Kumher		
7.	A training on "Service & Financial	22-23.09.2017	02	25
/·	Rules"	22 23.07.2017	02	23
8.	"Foundation Course on Statistical	Nov 27-Dec4,	08	24
0.	Analysis System"	2017	00	2-1
9.	A Training on "IFMS PRI Pay	14.12.2017	01	20
<i>)</i> .	Manager"	17.12.2017	01	20
10.	Training on "Road Safety	23.01.2018	01	28
10.		25.01.2016	01	20
2010 10	Management"			
2018-19	A 1 C M C AICDD	10.21	02.D	7.5
1.	Annual Group Meet of AICRP on	18-21	03 Days	75
	Vegetable crops	May, 2018	00.7	2.50
2	23 <sup>rd</sup> Annual Group Meet of AICRP on	27-29	03 Days	250
	Chickpea	Aug., 2018		
3	CAFT training entitled	25 July - 14	21 Days	22
	"BiotechnologicalInterventions to	Aug, 2017		
	Enhance Crop Productivity under			
	Stress Conditions"			
4	"Role of precision farming in urban and	Jan. 04-24,	21 days	25
	peri-urban horticulture in the era of	2018		
	urbanization			
5.	A training programme on "Cyber	12 <sup>th</sup> July 2018	01	27
	Crime and Security"			
	· · · · · · · · · · · · · · · · · · ·	l		

		161 2010	0.1	20
6.	A training programme on "E-Procurement and E-Billing"	16 Aug 2018	01	20
7.	First 21 days Orientation programme	September 04- 24, 2018	21 Days	21
8.	Training cum seminar on "Positive Work Culture"	04-05.01.2019	02 Days	28
9.	A training programme on "Cyber Crime & Security	07.02.2019	01 Days	20
2019-20	· •			
1.	An orientation program for newly recruited Assistant Professors/ SMSs	February 06- 26,2020	21 Days	18
2.	One day National Workshop was organized on Career Development Centre (CDC)	February 12, 2020	01 days	45
3.	One day online training course for 45 newly recruited Assistant Professors was conducted on the topic "Organizing Online Training Courses"	27.06.2020	01 Days	45
4.	An ICAR sponsored CAFT training was Organized on "Physiological and biotechnological Intervations Towards Climate Resilient Agriculture	03rd to 23 <sup>rd</sup> , 2020	21 Days	19
5.	An ICAR sponsored 21 days summer school on "Soil Health Management and Plant Nutrition under Changing Climate Scenario"	02-22 Sept., 2019.	21 Days	22
6.	An ICAR sponsored winter school on "Advances in Organic Manure Production and Biogas Technology for Entrepreneurial Development and Empowerment of Farmers"	08-28 Nov., 2019	21 Days	18
7.	A training programme on "Taxonomy of Whitegrub (Coleoptera: Scarabaeidae)"in collaboration with NBAIR-Bengaluru	19 <sup>-</sup> 25 Feb., 2020	07	21
8.	Organized XX Group Meeting of the project, All India Network Project on Soil Arthropod Pests	1-2 Mar., 2019	02	35

9.	One day training on PFMS, IFMS, GeM and RTPP Act-2012 Rules-2013	15 June 2019	01	70
10.	A training on positive work culture	03 July 2019	01 Days	102
11.	II <sup>nd</sup> orientation program for newly recruited Assistant Professors/ SMSs	Aug 14 to September 03 2019,	21 days	18
12.	Mushroom production training	18-19 Nov 2020	02 days	35

Webinars and online lectures: Following webinars were organized in the University

❖ Online NAHEP Launching Ceremony: Launching of ICAR funded National Agriculture Higher Education Project (NAHEP) entitled, "Institutional Plan on Strengthening Academic Ambience for Quality and Skill Oriented Under-Graduate Education at SKNAU, Jobner" was done online by Shri Kalraj Mishra, Hon' ble Chancellor and Governor of Rajasthan on July 22, 2020. In this Webinar Dr. T. Mahapatra, DG ICAR and Secretary DARE was the Special Guest and Dr. J. S. Sandhu, Vice Chancellor SKN Agriculture University preside over the function



- ❖ Dr. Kulvinder S Gill, Professor & Director, Department of Crop and Soil Sciences, Washington State University, Washington, USA.delivered a online lecture on "Molecular Breeding: Wheat Breeding as a Model System": on Aug 27, 2020
- ❖ Professor. HarbansBariana, Professor of Cereal Rust Genetics, University of Sydney, Sydney, Australia delivered a lecture on "Breeding for disease resistance-using wheat-rusts system as model". On Aug 22, 2020
- Dr. J.S. Sandhu, Hon' ble Vice Chancellor, SKNAU, Jobner, Rajasthan delivered a lecture on Role of plant breeding & genetics in food security and nutrition" On April, 24 2020

- Dr. K. Siddique, University of Western Australia, Perth, Australia delivered a lecture on "Climate Change Adaptation in Dry Land Agriculture and a Brief about University of Western Australia" On Aug 13, 2020
- ❖ Locust Management : A webinar on "Management strategies for the desert locust " was organized on June 27, 2020
- ❖ Hackathon: Resources Conservation in Agriculture, on July 16, 2020
- "Combating Salt Stress: Opportunity to Enhance Livelihood Security of Affected Farmers" on Aug10, 2020
- Online Workshop on "Digital Classroom for Effective Teaching" on Aug 19, 2020
- An online Agri-preneuriallecture on "Processing and Value Addition" for promoting Self-reliance in Undergraduates was delivered on September 09, 2020.
- ❖ A "KRISHI GURUKUL" Online Quiz Series for U.G. Students was organized during Septembe 03, 2020-September 24, 2020.
- ❖ An online Essay Writing Competition for U.G. Students on "Impact of COVID-19 on Farmers Economy" was organized during Aug 27, 2020 Aug 31, 2020.
- ❖ An online Quiz Series For U.G. Students was organized on Aug 20, 2020 to enhance excellence in
- Competitive examinations.
- ❖ Online Training on RTTP Act-2012 of Rules 2013 & GeM was held on 27.10.2020.

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# **Chapter 6 Student Development**

#### **6.6.6. Student Development**

#### 6.6.6.1. Scholarships/Stipend:

The University has a provision of merit scholarship for students of various constituent colleges. The students are also receiving various scholarship announced by GoR and centrally sponsored schemes. They also get scholarship from other agencies viz: NGOs, private organizations and public fundings.

With a view to provide financial assistance to the economically weaker sections as well as meritorious students, the University has direct linkages with the following departments/ societies/ bodies awarding fellowship/ scholarships. The financial assistance schemes for the students are depicted in the table below:

Name of scholarship	Institution	Amount in Rupees	
Inspire (DST) Fellowship	Department of Science & Technologyy, New Delhi	31,000/- per month	
Rajeev Gandhi National Fellowship	UGC, New Delhi	31,000/- per month	
NTS	ICAR, New Delhi	Under ICAR quota in UG ( other State 3,000/- per month PG 5,000/- per month JRF 12640/- per month SRF 25,000/- Per month+HRA	
University merit Scholarship		10,000/- for PG and 15,000/- for Ph.D Students per annum	
Incentive for Girls students	Department of Agriculture, Govt. Of rajasthan	3000/-per annum	
Post metric scholarship	Department of social justice and Empowerment, GoR		
Dhanuka Agritech	Dhanuka Agritech Pvt. Ltd.	M.Sc. Ag. Ento 5000/- per month	
		Ph.D. Ento. 5000/- per month	

In last three year total 44 students of the university got ICAR –JRF and 13 students of the university got ICAR-SRF.

#### 6.6.6.2. Extra and Co-curricular Activities:

The university organized/participated in sportsgames, cultural activities, NSS and NCC programs.

Table-19. Sports, games and cultural activities of University

S.N	Year	Name of events	Date	Participan
0.		<u>.</u>		ts
1	2015-16	· ·	23-28 Feb,2016	26
		NSS camp was organized for NSS Volunteers atVillage	7 days camp	Students of
		Salempura in Feb,2016. During this Village awareness	&activities	all colleges
		programmes for social developmentLike community	conducted	
		health and hygiene, child health and education, girl child	throughout	
		care oriented issues and literacy of women etc. were	the academic	
		taken. For this purpose lectures, poster demonstration,	session	
		rallies and gosthies were organized. A special skit focused		
		on Antidowry sentiments were played at valedictory		
		function.		
2.	2016-17	CSU (Central Student Union Election)	Aug.24,2016	
		17 <sup>th</sup> Ari- Unisports 2017 at HAU, Hisar	23-29,Marc2017	27
		17 <sup>th</sup> All India inter Agricultural Universities Youth	22-25, Feb 2017	16
		FestivalAt RAJUVAS, Bikaner		
		Special NSS camps organized by each college in	7days camp&	Students of
		adopted village and NSS activities conducted by college as	Activities	all colleges
		tree plantation, swachhata programs, health awareness,	conducted	
		blooddonation etc.	throughout	
			the academic	
			session	
3.	2017-18	Central student Union Election)	Aug.28 2017	
		SKNAU, youth Festival	Oct.31,Nov3,	
		10th A 1 10 A 17th	2017	20
		18 <sup>th</sup> Agriunifest at Tirupati	Jan 30-Feb 3, 2018	28
		18 <sup>th</sup> All india Inter – Agri sports Meet at Bangalore	Jan.26-Feb. 8, 2018	21
		International Yoga Days	June 21, 2018	
4.	2018-19	A seven days special camp was held for 50 volunteers		Students Of
		students during 18-24 Feb, 2019 at different colleges of		All colleges
		the university. The activities like Sadbhawana divas,		_
		swachhata pakhwaram, Plantation, blood donation camp,		
		International yoga day were conducted		
		Youth Festival of SKNAU, jobner	Oct.3-6,2018	
		The 14th All India Inter Agricultureal Sports Meet		45
		19 <sup>th</sup> All India Inter Agricultural Universities Youth	Feb.3-7,2019	22
		Festival at Sardar Krushinagar Dantiwada Agricultural		
		University, Sardarkrushinagar (Gujrat)		
5.	2019-20	The Student Union Elections 2019-20	27.08.2019	
		Every undergraduate college has one NSS unit The SKN		StudentsOf
		College of Agriculture jobner has two NSS units. In		All colleges
		2019-20total 903 students were registered in NSS in		
		different colleges out of which 624 were boys and 279		

girls. The NSS unit organized many activities throughout		
the year such asBlood donation camp Pre RD camp, Jal		
shakti Abhiyan, swachh Bharat Summer Internship, self		
defence training, fight against Corona Virus etc.		
T . II	4 ( 40 0 ) 0040	
Intercollegiate tournament of University	16-19 Oct. ,2019	260
Intercollegiate tournament of University  Intercollegiate cultural, literary and fine Art competition	16-19 Oct. ,2019 16-19 Oct. ,2019	260 180
Ş	16-19 Oct. ,2019	

#### 6.6.6.3. Health Facilities:

There is a facility of vehicle for any emergency case for all hostel inmates along with the driver designated for the same. Mobile Number of driver and doctor are displayed on notice board of every hostel. Regular visits of medial officer/ Doctor at every hostel of the university has been assured by respective head of the colleges/ institutes.

#### 6.6.4. Sports and Cultural Facilities:

Sports and cultural activities for students have been governed by the DSW office. The University has a well developed sports facility for students as well as for staff. The university has indoor stadium (Badminton and Table tennis), Basket ball and volleyball court and stadium (with capacity of 250) with an athletics track for all athletic activities. The stadium has all facilities. Coach has been appointed by the University for coaching of the students for different sports activities. In total the University has 02 basketball courts, 12 volleyball courts, 07 T.T. tables and 05 Badminton courts.

The DSW is supported by a cultural coordinator who coordinates all the activities conducted for students by DSW office. Beside there is a separate auditorium in each college for conducting cultural and other activities.

#### 6.6.6.5. Student counseling and Placement Cell:

SKNAU, Jobner University has a well established placement cell managed by faculty members. The cell looks after the guidance to the students about job opportunity, and higher education in different areas. The cell organizes special lectures, personality development workshops, trainings on communication skills and campus placement in public and private sectors. Placement cell developed online data base of all the students of B.Sc. (Ag.) final year, M.Sc. (Ag.) and Ph.D for their placement. Placement cell of each college have been constituted at every college of the University which function through DSW.

Students Placement Profile

Table-20 . :Students selected for higher studies/placement from College

Year	Govt.	ICAR	CAU /SAU	Banking sector	Private company /others	Self	employed		Total
						Farming	Business	education	
2015-16	15	4	2	05	13	01	02	09	51
2016-17	12	2	-	06	10	02	02	20	54
2017-18	32	3	65	-	30	-	05	-	135
2018-19	10	02	82	18	01	10	05	09	137
2019-20	94	03		16	16	05	04	05	108

**6.6.6.6. Disabled Friendly Facilities**: The facilities like ramp with railings are available for disabled person in the university campus. The university complies with Word Wide Web Consortium (W3C). This enables people with visual impairments access the website using assistive technologies such as screen reder. The information of the website is accessible with different screen reader.

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### **Chapter 7**

#### 6.6.7. Infrastructure

#### 6.6.7.1. Physical facilities including administrative building and lands:

Institutional area 40.0 ha

Farm land 200 ha

The University headquarter has excellent facilities for sports, games, cultural and literary activities with a play ground area of five ha along with sports complex of 290 sqm. Other facilities at the campus are - Bank, Post- Office, Health- Clinic, Farmers' Hosteland Guest house.

Table-21 List of building and plinth area of all offices under SKNAU, Jobner

S. No.	Name of Unit	Plinth area (Sq.m)
1.	Vice Chancellor Secretariat	140.0
2.	Registrar	346.0
3.	Controller of Examination	250
4.	Estate office	190
5.	Pool office	41
6.	Land Scape cell	41
7.	Directorate of PM&E	96
8.	Directorate of Extension Education	713.73
9.	Directorate of Research	190.0
10.	Comptroller	440

**Table-22: Physical facilities at Agriculture Colleges** 

Particulars	SKNCOA, Jobner	COA, Lalsot	COA,Fatehpur Shekhawat	COA, Kumher Bharatpur
Institutional area	40.0 ha	2.0 ha	30 ha	80ha
Farm land	200.0 ha	49.0 ha	10 ha	-
Administrative	1100.0 sqm	1200.0 sqm	Academic	4945.30sq
building/			building	m
block/space			3393.67sqm	
			Administrative	
			building	
			1066.84 sqm	
Class Roomand	5785.0 sqm	727.0 sqm	Class room	
laboratories			390.00 sqm	1072.50sqm
			Labs1050.00sq	682.50sqm
			m	

Student Hostel for men and Women	11552 sqm	1945.0 sqm	-	775.60sqm
Institutional farm	1440.0 sqm	-		-
Green House, Polly House	Agriculture 36 ha Animal shade 2566 sqm	-	-	-
Farm Power, farm machines and equipment and irrigation infrastructure	Tube Well -10, Open well- 06 Reservoir -4 Tractor- , Cultivator- Seed drill- Herrow-	Tractor-1, Levellor11 Cultuliivat or-1 Tube well- 2, Water harvest pond -1	Car-1, Jeep- 1, Bus-1 and Tractor-3	Car-1 Tractor-2
Facilities for sports, games, cultural and literary activities.	Play ground 5 ha Sport complex-290 Sqm	TT, Badminton s, Cricket, Kabaddi	TT, Badmintons, Cricket, Kabaddi	TT, Badmintons, Cricket, Kabaddi
Any other important facility	Bank,Post office, health clinic work s hop, Kisan hostel AEN office, Farm office etc., Implement shed-02 Library 896 Sqm,Glass House-02 House Facilty7152Sqm Guest House -1084Sqm Canteen 390 Sqm, Green House-02 Dry shed-01,Thresing floor-02	Library 180 Sqm Canteen 70 Sqm	Library75 x 40 sq feet Conference hall 37x 22	Guest house 336.00 Housing for faculty 315 Library 250
Adoption of ICAR Norms and deviations, if any	Yes	Yes	Yes	Yes

**Table-23: Physical Facilities at Agricultural Research Stations** 

Particulars	RARI, Durgapura, Jaipur	ARS, Navgaon	ARS, Fatehpur Shekhawati
Institutional area	5.00 ha	41.0 ha	130.0 ha
Farm land	73.34 (RARI, Durgapura) + 11.80 ha	6.0 ha	20.0 ha

	(at Kherwadi)		
Administrative building/ block/space	3508 sqm	2782 sqm	2215 sqm
Class Roomand laboratories	7510 sqm	-	-
Student Hostel for men and women	Nil	-	470 sqm
Institutional farm	85.14	41.0 ha	150 ha
Green House, Polly House	3.15 ha	-	-
Farm Power, farm machines and equipment and irrigation infrastructure	Tube Well /Open well-7, Reservoir-6, Disc plough-2, Cultivator-4, Disc harrow-4, Bund former-4, Seed drill-1.Tr-Trolly-3, Sub sailor-1,Levellor-4,Tractor-4,Grd. Nut digger-1, Sowing machine-2,winno wing fan-1,plot thresher-1,digging machine for grnd nut-1,seed/fert drill-2, Multi crop Threshar-1, Seed cleanser-1,Tr. Mount sprayer-1, Mobile seed grd. Unit-1,Trctr operated pest hole digger-1,Water tanker-1,Culture thressar-1,Crop tiger combine-1,Jeep trolly-2,power tiltter-2, Plot seed drill(precision)-1, Multy crop thressar-1,Seed grader-1	Tractor-1 Jeep- 1 Harrow-4 cultivator-2 seed drill- 1 Grading plant- 1, MB.Plug-2 Bund farmer- Tube well-3	Minibar-1 Jeep- 1Tractor-2 Disc harrow- 4,Time tiller-03 Levellor- 2drill-2, Ridge Seeding-07 Cultivator blade 01, weed culture 01, hyd.Trolly 01,
Facilities for sports, games, cultural and literary activities.	Auditorium-1	Nil	Nil
Any other important facility	Store, garage, Vehicle shed Canteen etc. 2000Sqm Residential quarter-45Nos (5405 Sqm), Guest House 870 Sqm	Stores- 654 Sqm Staff Quarter 29Nos (2210 Sqm) Shade and Pump house- 278 Sqm	Vechicle shed 625 Sqm WS-95 Sqm Residential Qtrs 23 Nos (2658 Sqm), Godown-3 Threshing floor-01
Adoption of ICAR Norms and deviations, if any	Remark:- More details are being submitted by the Dean SKN COA, Jobner ICAR NORMS- Yes	Yes	

**Table-24: Physical Facilities at Agricultural Research Sub-Stations** 

Particulars	ARSS, Tabiji	ARSS, Diggi	ARSS, Kotputli	ARSS, Kumher
Institutional area	4.50 ha	5.0 ha	7.0 ha	4.65 ha
Farm land	14.0 ha	45.0 ha	28.0 ha	55.35 ha
Administrative	548.40 sqm	350.0 sqm	706.0 sqm	247.0
building/	o totto o que	1	1	sqm
block/space				1
Class Roomand	-	-	_	_
laboratories				
Student Hostel for	-	-	_	-
men and women				
Institutional	14.0 ha	-	28.0 ha	55.35 ha
farm				
Green House,	200 sqm	-	_	-
Polly House	1			
Farm Power, farm machines and equipment and irrigation infrastructure  Facilities for sports, games,	Tractor, Trolly, Scuff drill, cultivator, Disc harrow, disc plough MB plough, Open /Tube well-03 Bund farmer, Leveller	Tractor- 03,Trolly- 2,Disc plough- 02, Seed/fert drill-02, Rotovator- 1,Cultivator-2	Tractor-02, Cultivactor- 02 Sowing machine-01 Leveltor-01 Harrow-01 Tube well- 02	Tube- Well - 04.pond- 2,tractor- 2,trolly- 1,grader- 2,disc harrow- 1,trilller- 2,seed drill- 1,leveller- 1,D. engine-1
cultural and				Nil
literary activities.				
Any other important facility	Go dam 645Sqm Threshing floor 1800 Sqm Residential Qtrs.01 -90 Sqm	Residential Qtrs 06 Nos (180Sqm) Godam-150 Sqm Implement shed-2, Thressing flr-1	Godown- 03	Staff Qtrs-03 (281Sqm) God am 462 Sqm Threshing floor1653 Sqm
Adoption of ICAR Norms and deviations, if any	Yes	Yes	Yes	Yes

Table-25 : Physical Facilities at Krishi Vigyan Kendra

Particulars	KVK, Tabiji	KVK,	KVK Dausa	KVK,
		Navgaon		Kotputli
Institutional area	1.50 ha	2.0 ha	1.30 ha	-
Farm land	9.0 ha	18.0 ha	16.0 ha	41.05 ha
Administrative	620.0 sqm	655.0 sqm	700.0 sqm	247.0 sqm
building/	_	_		
block/space				
Class Room and	-	-	-	-
laboratories				
Student Hostel	1065.0 sqm	900.0 sqm	680 sqm	-
for men and	1	1	1	
Women				
Institutional	9.0 ha	18.0 ha	16.0 ha	41.05 ha
farm				
Green House,	1885.0 sqm	1560.0 sqm	_	_
Polly House		1 -2 - 3 - 3 - 1 - 2		
Farm Power,	Tractor-01,Disc plough-01,	Tractor,	Tractor-01,	Tractor-01,
farm machines	Seed delinting mach-01,	Harrow,	Jeep-01	Jeep-01
and equipment	fume hood 01,MB Plough-	Cultivator, MB	Motor cycle-	Implement
and irrigation	01 drill-01 Rain gun-01	plough Seed	02	Shed-04
infrastructure	Jeep-01 Minibus-01, Motor	drill	Water	
	cycle-01 ,Well-03		Harvesting	
			pond-01	
			pond of	
Facilities for	Nil	Nil	Nil	Nil
sports, games,				
cultural and				
literary activities				
Any other	Water Harvestin Poud-	Residential	Residential	_
important facility	02,Implement Shed and	Qtrs (7) -	Qtrs (6)- 393	
	Goddam155Sqm,Residential	448Sqm,	Sqm	
	Qtrs. 6Nos(394Sqm)	Godam-	Farm Godam	
	Threshing Floor-226Sqm	130Sqm	30 Sqm	
		Threshing	Implement	
		Floor 573Sqm	shed-77 Sqm	
		Water pond-1,	Jiiou / / Dqiii	
		Implement		
		shed-77 sqm		
Adoption of	Yes	Yes	Yes	Yes
ICAR Norms				
and deviations,				
if any				
411	<u>l</u>	l		_1

#### **KVK** continue

Particulars	KVK, Kumher	KVK, Dholpur	KVK,Fatehpur Shekhawati
Institutional area	7.75 ha	1.0 ha	1.24 ha
Farm land	14.0 ha	20.04 ha	14.0 ha
Administrative	990.0 sqm	445.0 ha	1170 ha
building/			
block/space			
Class Roomand	-	Class room 02	-
laboratories			
Student Hostel for men and Women	680.0sq.	300.0 sqm	803 sqm
Institutional farm	14.0 ha	20.04 ha	14.0 ha
Green House,	Nil	280.0 sqm	915.0 sqm
Polly House		1	1
Farm Power, farm	Water pond-01Tractor-2	Tractor-01, Leveller-	Tube well-02, Water
machines and	Jeep-1,	1, Cultivator01-,Seed	pond-01-,Tractor-01,
equipment and	Power sprayer-5, Bund	drill-01,Moter cycle-	Power Tiller-01,
irrigation	Farmer-1	1,Water Harvesting	Disc harrow-01,Disc
infrastructure	Harrow, Seed drill—1,	pond-01,Jeep-1	plough-01
	Seed/fert. Drill-3	Threshing flooring-	Cultivator-01, Seed
	Soil/Water Testing	220 Sqm	drill-013,
	equment-1, Sprayer, Disc		Power spray-01
	harraw-1 ,Blade Thresher		
Facilities for		Nil	Nil
sports, games,	Nil		
cultural and			
literary activities.	G. C.O. 06 (202 G.)	P :1 ::10: (6)	Q. 41.5Q
Any other	Staff Qtrs-06 (393 Sqm)	Residential Qtrs (6)-	Stores-415Sqm
important facility	Stores 112 Sqm,	400 Sqm	Implement shed-99
	Implement shed-189 Sqm,	Godam 60 Sqm	Sqm
	Garrage-66 Sqm Threshing floor 254 Sqm		Residential Qtrs (6)- 503Sqm
	Threshing floor 234 Sqiii		3035qm
Adoption of ICAR	Yes	Yes	
Norms and			Yes
deviations, if any			

#### 6.6.7.2. IT Infrastructure.

Center for Information Management and Computer Applications (CIMCA), has been established under Sri Karan Narendra Agriculture University at Jobner (Jaipur). The setup of Payroll Management System is done successfuly for developing salary statements, schedules and salary slips for entire employees of the University. Presently CIMCA is providing e-communication and e-regulations of academic dimensions and e-governance of resource administration of SKNAU, Jobner.

**LAN connectivity**: The centre provides 1 Gbps Internet Connectivity through National Knowledge Network (NKN) in all offices and hostels of SKNAU, Jobner. The University has its own website (<a href="https://www.sknau.ac.in">www.sknau.ac.in</a>) which is updated regularly. The website has all the information of major activities of the university viz. teaching, research and extension.

Wi-Fi/ Internet facility: All the units of the Uniersity along with hostels are having good wi-fi facilities.

Computer based library management: The facility of internet access and E-mail is available within the building through optical fibre from SKNAU llocal area network. 300 nodes are available for internet access. Besides Wi-Fi access facilities ,thirteen modern computers equipped with licensed software have also been provided to students for the access of Webopac , Digital Library and IP based CeRa ( ICAR) which includes **Krishi Prabha (Theses)**, CAB Abstract, Indian Journals and J-Gate Journals. Students and Staff are free to operate these computers as search engines for assessing different reading materials. Further all the Ph.D. and M.Sc. thesis converted into digitized form and could be accessed through computerin the central library. Reprography service and bibliography data base for PG and Ph.D. thesis is available in library.

**Videoconferencing facility**: Videoconferencing web based and IP based facility is available in at CIMCA and SABI State Agri Business Incubator). These are being utilized for video conferencing with state Govt. and ICAR as well as for conducting onlinemeeting, Webinar lectures during CO-VID 19.

**Smart class rooms**: The University having 6 smart classrooms with 65-inch Interactive Flat Panel Display with mini computers, and 8 smart classrooms having interactive boards. These facilities are used for teaching UG and PG students.

#### 6.6.7.3. Students and Staff Amenities:

Sporting and Recreational Activities: The Directorate of Student's Welfare aims at promoting the talent and interest in cultural and literacy programs and organizes SKNAU Youth festival every year, wherein various activities like classical dance, music, skit and literary events like quiz, poetry, general knowledge/debate etc. are under taken. Students take part in the Intra Agriculture University Youth festivals and Inter University Youth festivals. The university youth festival was organized at university head quarter at every year. The games and sports activities are integral part of an education programme, which molds young people and inculcate sportsmanship in them resulting in better mutual understanding and a positive attitude. It also builds good character and disciplined personality in the students. In order to achieve this goal, the University Sports Board play a significant role to organize, maintain and strenghthen the games sports and other facilities constantly. For that qualified physical education staff and improved sports facilities are required at varius colleges. Sports council makes sports calendar annually, for conducting intercollegiate tournaments and selection tials, for participation in

Inter University Tournaments and inter-state Agriculture Games and Sports Meet. Every year students represent the university by participating in Interstate Agricultural Games and Sports Meet and Inter University tournaments.

#### **National Cadet Corps (NCC)**

SKN college of Agriculture, Johner has a NCC unit. Presently 89 students of the college were registered in NCC, comprising 41 boys and 48 girls. The cadets are being trained to develop character of comradeship, discipline, leadership, secular outlook, spirit of adventure and the ideals of selfless service amongst the youth of the country. The cadets also participates in Independence / republic day parade, blood donation camp etc.

#### **National Service Scheme(NSS)**

National Service Scheme operates in all constituent colleges of the University. The DSW coordinates the programmes of NSS activity. Each college has designated programme Officer from amongst its faculty and carry out NSS activities. The Uniersity launches regular and special activies of NSS. In regular activities plantations, blood donations, literacy programmes, awareness programs such as swacchata, self employment, Traffic safety, Environment protection, self defence and CO VID are organized throughout the year.

#### **National Sports Organization(NSO)**

The University has a well developed sports facility for students as well as for staff. The university has indoor stadium (Badminton and Table tennis), Basket ball and volleyball court and stadium (with capacity of 250) with an

Athletics track for all athletic activities. The stadium has all facilities. Coach has been appointed by the University for coaching of the students for different sports activities. In total the University has 02 basketball courts, 12 volleyball courts, 07 T.T. tables and 05 Badminton court.

There is office of cultural coordinator under the offie of DSW. Beside auditorium in each college there is one common auditorium at University head quarter. Canteen facility has been available in all the colleges of University.

**Student councelling Centre**: University has a well established placement cell managed by faculty members. The cell guides the students about job opportunities and higher education in different areas, organizes special lectures, personality development workshops, trainings on communication skills and campus placements. This helps the students in their placement in different organizations including public and private organization.Placement cell develops online data base of all the students of B.Sc.(Ag) final year/M.Sc(Ag)./ Ph.D. for their placement.

The students enrolled with the university, willing to get job opportunities through placement cell may submit their Curriculum Vitae online.

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### **Chapter 8**

### **Financial Resource Management**

#### **6.6.8. Financial Resource Management:**

#### 6.6.8.1. Budget allocation:

**Table-26: College wise budget allocation** 

Institute	Budget allocation	ation Year (Rs. In Lakhs)				
		2015-16	2016-17	2017-18	2018-19	2019-20
SKN	Salary	1343.30	1605.38	1928.00	2170.00	2206.00
College	Contigency	51.90	67.11	67.00	69.00	73.13
of	ICARdevelopment fund	143.68	82.00	152.00	180.50	144.89
Agricultu	_					
re Jobner						
	Total	1538.88	1754.49	2147	2419	2424.02
COA,	Salary	136.79	279.09	307.00	386.82	397.43
Lalsot	Contigency	47.00	33.00	32.00	32.00	32.00
	ICARdevelopment fund	36.04	82.0	141.00	93.86	28.11
	Total	219.83	394.09	480	512.68	457.54
COA	Salary	93.35	129.17	154.53	192.50	222.00
Bharatpur	Contigency	20.00	28.50	31.00	35.00	27.00
	ICARdevelopment fund	24.04	-	-	-	-
	Total	137.39	157.67	185.53	227.5	249
COA	Salary	74.27	120.39	157.61	222.50	202.00
Fatehpur	Contigency	20.0	27.50	31.00	35.0	27.00
	ICARdevelopment fund	23.88	-	-	-	-
	Total	118.15	147.89	188.61	257.5	229
CoA	Salary	-	-	-	60.0	152.50
Navgaon	Contigency	-	-	-	12.80	35.00
	ICARdevelopment fund	-	-	-	-	-
	Total				72.80	187.50

Fund received from ICAR are being utilized for strengthening and development of various activities according to allocation. However, looking to the expanding programmes and institutions it has been observed that University should receive more allocation from ICAR for strengthening and development. But the fund needs to be allocated and released at the start of the academic session.

#### **6.6.8.2. Finance Committee:**

The finance committee is constituted to perform the following functions:

 To examine the annual accounts and the budget estimates and advise the Board of Management

- To review the financial position of the university from time to time and advise the Board of Management and
- To make recommendation to the Board of Management on any matter of finance, or any proposal, involving excess expenditure.

Financial support of SKNAU comes from the central and state Governments through various channels. Allocations are received and distributed through the financial management system under the direction and approvals of the Vice Chancellor are under the management of the Comptroller, who is appointed by the State Government.

**Table-27: Finance Committee Meetings held** 

S.No.	Year	Date of meetings
1.	2015-16	05.03.2016
2.	2016-17	05.03.2016
3.	2017-18	26.09.17
4.	2018-19	10.09.18
5.	2019-20	27.11.2019
6.	2020-21	20.06.2020

#### 6.6.8.3. Internal Resources Generation:

**Table-28: Internal Revenue generated** 

Year	Internal revenue (Rs. In Lakhs)
2015-16	218.56
2016-17	262.93
2017-18	406.02
2018-19	481.68
2019-20	377.34

#### Sources of finance

Among the various sources of finance, the university receives continuous support under the state plan and Non plan budget of the state Government, in addition to ICAR and the other Government of India agencies /bodies. A part of the revenue is also generated by the university activities. Non plan grants are provided by the state Government for the continuation of committed on going programme of the university. However, for the last five years, the state is facing severe financial crunch, which has been reflected by cut in the contingency grant for the expenditure and otherfacilities that were provided to the university employees. The university is facing severe problems in providing pension to the retired staff.

**Plan:** Plan grants are also provided by the State Government to meet expenditure on new programmes. Though the programmes started in previous plan periods have been transferred to non plan. The new

colleges established during the last decade are suffering for want of adequate funds. Adequate physical facilities are yet to be created in these colleges.

#### **ICAR**

Adequate support is being provided by the ICAR in terms of Coordinated projects, adhoc projects, NAIP and NAHEP. There are some issues relating to grants for upgradation of position / promotions which are being sorted out. University generated internal revenue 2.50 percent of total budget of university during 2015-16 amounting of 218.56 lakhs through various revenue generating programmes.

Note: The income generated from various sources is utilized for academic programmes, research work and to meet out the other requirement of the university.

#### 6.6.8.4. External Funding:

Table-29: Funds received from external sources

Year	External funding agency (Rs. In Lakhs)				
	GoR*	ICAR	RKVY	OCs	Total
2015-16	5601.00	2813.76	151.68	73.38	8639.82
2016-17	6880.50	3070.07	1400.00	76.32	11426.89
2017-18	7483.25	2643.78	553.59	92.20	10772.82
2018-19	8626.58	2967.70	1262.09	137.20	12993.57
2019-20	8170.00	3768.95	166.42	220.45	12325.82

<sup>\*</sup> Fund received + financial utilization of state fund

#### 6.6.8.5. Financial Powers Delegation to Deans/Heads:

#### **Financial Powers**

All financial powers are delegated to all the Deans/ Directors/ ADR/ O/S/ and authority them to exercise fullfinancial powers subject to the Budgetary ceiling and as per rules/ procedure laid down.

- Further Deans and Directors are authorized to permit an advance payment against Railway Reciept through Nationalized Bank but not against goods receipts (transport).
- Selection for an advance payment for purchasing foreign journals from professional societies can also be issued by officers covered in aforesaid para (b) above if they are not procured through intermediate agencies. However book and journals intended to be procured through intermediate agencies will not be be be included and in this case payment will be made only against deliveryas per regulations of Good Office Committee.
- For opening letter of credit, the advance payment will be sanctioned by respective Deans and Directors along with provisions for margin money out of their budget.
- The purchase will be made within time schedule approved by the funding agencies and sanction for spill over will have to be made within time schedule approved by the funding agencies and sanction for spill over will have be obtained by the respective Deans/ Directors before incurring any further expenditure. Revalidation shall not be constructed to mean automatic sanction/spill over.

- Expenditure in all such cases shall be limited to budgetary ceiling and limitations and it shall be referred to ICAR or other funding agencies, should there be cost escalation.
- In case of purchase of indeginously produced goods advance payment shall be permissible against bank guarantee.

#### 6.6.8.6. Finance Utilization:

The entire budget allocated to the university is utilized completed but due to lack of support from Govt. of Rajasthan and bifurcation of University, the university is suffering from lack of funds and hence it is unable to pay retrial benefits to the staff getting retired.

Year	Fund Received	Fund Utilized	Percent finance utilization
2015-16	8759.45	8759.45	100%
2016-17	11284.45	11037.06	97.80%
2017-18	10772.82	9462.66	87.83%
2018-19	12193.57	11994.83	98.37%
2019-20	11228.38	11228.38	100%

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### **Chapter 9**

### **Accomplishments**

#### 6.6.9. Accomplishments

#### 6.6.9.1. Awards for the University:

- i) All India Coordinated Research Project on Taramira as the best performer sub-centre for the year 2015-16 during Annual workshop of the AICRP Taramira, Aug. 03, 2016.
- ii) All India Coordinated Research Project on Spices as the best centre among 38 in the country during Annual workshop of AICRP Spices, Oct. 24-26, 2016.
- iii) Durgapura Centre of AINP on Soil Arthropod was awarded 'The Best Center'. In the XX Group Meeting of the project organized at University of Agriculture Science, GKVK, Bengaluru, dated March 1-2, 2019.
- iv) Awarded **Best Centre** toRARI, Durgapura for Outstanding Contribution in the field of Pearl Millet Improvement the 55<sup>th</sup> Annual Group Meeting of AICRP on Pearl millet held on April 29,2020 by the All India Coordinated Research Project on Pearl Millet, ICAR.
- v) Dr. N.K. Gupta got J.J. Chinoy gold Medal Award from Indian Society for Plant Physiology for their outstanding contribution in the field of Plant Physiology research.
- vi) The First KVK Partnership Award" was awarded by the President of India on 04<sup>th</sup> March 2017 for Innovation in Sikar District to Dr. Junaid Akhatar, Sr. Sc. & Head and Dr. B.L. Asiwal, Asstt. Professor, KVK, Fatehpur, Sikar.
- vii) Krishi Vigyan Kendra, Kumher, Bharatpur District of Rajasthan is adjudged as the best NICRA-KVK ATARI ZONEII for the year 2019 in recognition and appreciation of its best efforts in implementing the NICRA Technology Demonstration component of Indian Council of Agricultural Research.

#### 6.6.9.2. Accreditation Report from ICAR/Other Agencies:

ICAR- Accreditation of the university and its colleges: yes

Dates of previous accreditation by ICAR

March 21 2017

# Action Taken Report on the last recommendation/ observation of ICAR Peer Review Team (2017) and submitted to ICAR.

S.No	Recommendation of the Board	Action Taken
1.	Statutory officers of the University were not	Action has been initiated.
	appointed as regular basis.	
2.	The Mission statement, goals and objectives of	Same has been revised.
	the University and constituent colleges needs to	
	be revised appropriately	

3.	Some of the academic activities have not been implemented in true spirits of Deans' committee Recommendations	The university is strictly following the V <sup>th</sup> Deans' committee recommendation in all constituent colleges of the University.
4.	The university initiated few academic progrmmes which were not in accordance with ICAR guidelines	At present,UG,PG and PhD programmes are running as per ICAR guidelines
6.	The faculty should be strengthened in accordance with the recommendations of the Deans'committee	Efforts are being made to follow the rules as per ICAR norms as three professor, eight associate professor and 19 Assistant professor in all Constituent colleges of University.
7.	The following positions need to be created and appointed by the UniversityQualified University LibrarianDirector, Physical Education Medical officers ( Gents and Ladies)	Yes, At present Deputy librarian is Ph.D in library and information Science.  Proposal has been sending for posts to finance deptt., Govt. of Rajasthan.
8.	The following cells/units need to be established with dedicated manpower for effective delivery of required functionsQuality Assurance committee which should meet periodically for further improvement of quality education.	Action has been taken  Action has been taken.
	Personality Development, counseling and placement cell  Intellectual property Rights& Commercialization unit	Almost all KVKs have constituted a cell to encourage farmers for registration of their own plant varieties, animal and poultry breeds etc. for further commercialization. Seed production programme is also being taken up by the KVKs, ARS and ARSS in collaboration with farmers and seed industry.
	To develop effective linkages with industries for transfer of technologies	Action initiated

	Utilization of revolving fund	Utilization of revolving fund is made in strengthening of research farms, seed production programmes, maintenance of various demonstration units etc.
10	The faculty should be encouraged to prepare and submit research project to external funding agencies such as ICAR, DBT, DST, UGC, CSIR NABARD etc.	The faculty has been submitted and received projects from ICAR,DST NABARD, RKVY etc.
11.	The team recommends that the Best Teacher Award should be instituted and given annually at college and University level	Dr. R.S. Paroda Best Scientist award initiated.
12.	The facilities needs to be created properly at the Agriculture College, Lalsot such as boundary wall, farm facilities, internet access etc.	Action has been initiated.
13.	The facilities needs to be created properly at the Rajasthan Agricultural Research Institute (RARI), Durgapura such as Access to CeRA for faculty and students, core teaching faculty, hostel etc.	Action has been initiated.

#### 6.6.9.3. Inter Institutional Standings:

SKNAU, Jobner has been ranked 59<sup>th</sup> and 52th amongst agricultal universities of India by ICAR for the year 2018 and 2019, respectively.

#### **6.6.9.4. Socio-economic Impact:**

SKN Agri-Business Incubator is an Agri-Innovation Hub and Agri-Business Incubation Centre of Sri Karan Narendra Agriculture University (SKNAU), Jobner, Jaipur.. It offers well equipped incubation space, technical and business mentoring, networking with agribusiness industries, scientific and information resources, conducive and supportive environment for agri startups and opportunities for availing grant-in-aid though seed stage and pre seed stage funding. There are two programmes under the scheme.

#### **Agripreneurship Orientation Programme:**

This is the pre seed stage funding programme with a grant-i-aid upto Rs. 5 lakhs. It is aimed at providing an opportunity to anyone with innovative ideas by imparting a two months training cum hands on internship with other cohorts. Objective of the program is to mentor potential agripreneurs by providing them the requisite practical, technical and business insights related

training cum internship to make pursuing entrepreneurship related to innovative ideas an attractive career option among other available career choices.

#### **Startup Agri-Business Incubation Programme:**

This is a seed stage funding programme with a provision of grant-in-aid upto Rs. 25 lakhs. It is aimed at providing financial assistance to potential startups having a minimum viable product (MVP) in agriculture and allied sectors. This support will help them to scale up their operations and attain business viability at a faster pace. It will also help them to attract investments from other financial institutions for further scaling up their business operations. Ultimately the main aim of the programme is to increase the income of farmers and stop their migration towards other options by thrusting innovation and entrepreneurship and making agriculture a more attractive career option which could be achieved by these Agri-Business Incubators. Almost 20-30% farmers have started their own entrepreneur and saling up their business.

The Directorate of Extension Education as wellas the Krishi Vigyan Kendras of the university are conducting various types of trainings for the social development of the society. Likewise the KVKs have conducted the Front LineDemonstration training, On Farm Testing and supportive extension activities which are leading to the enhancement of the yield of different crops and ultimately the income and well being of farmers. In the referred period, the Directorate adopted village "Pachar" under "Developing Smart Village Model to achieve objectives of Mission Antyodaya" in compliance to Governer of Rajasthan. This University initiated a number of activities in this village. The development work like Upgradation of village school, plantation programmes, training on dairy farming, orchard cultivation, cropproduction technology, Front Line Demonstration of various crops has been done in the village with coordination of various departments. In this endeavour for developing village as ideal village, it was envisaged for setting an examples for neighbouring villagers to learn and replicate the same with the conviction and co-ordination of all line departments.

#### 6.6.9.5. International Collaboration: NO.

**6.6.9.6. Fund Raising through CSR:** Total fund of 220.45 lakhs was generated by Directorate of Research in 2019-20 through testing of Chemicals/ varieties/ other new molecules of private companies for the welfare of the farmers. These provide opportunity to the scientist for using his skill/ specialization and it is also a source of revenue generation. This fund is utilized for the development of infrastructure of different research unit of the University.

**6.6.9.7. Alumni Support:** Alumni Association is functional in SKN college of Agriculture, Jobner in the University. Presently no funds have been raised by the association, but in near future this will be taken care off.

# 6.6.9.10 Certificate (Application when SSR in submitted for Programmes, Colleges and Agricultural University).

I, Ms. Alka Vishnoi, Registrar of Sri Karan Narendra Agriculture University, Jobner University hereby certify that the information contained in the sections 6.4, 6.5 and 6.6.1 to 6.6.9.7 are furnished as per the records available in the University.

Signature of Registrar with date and seal Sri Karan Narendra Agriculture University, Jobner

## **University Campus & Infrastructure**





**University Building** 



**Statue of Founder of University** 



**University Library** 



**State Agribusiness Incubator (SABI)** 

National Agriculture Higher Education Project



Centre of Information Management & computer Application

### SKNAU, Units





ARS, Fatehpur Shekhawati, Sikar

S.K.N College of Agriculture, Johner



College of Agriculture, Bharatpur



College of Agriculture, Fatehpur



Rajasthan Agriculture Research Institute, Durgapura



Agriculture Research Station, Navgaon



### **Students Activities**





**Sports activity at University** 

NCC activity at University





**NSS Activity Cultural Activity** 





Plantation at University campus

Yoga day celebration

### **Directorate of Extension Education Unit**



Agriculture Technology Information Centre



Solar dryer unit at KVK Ajmer



Goatry Unit at KVK Navgaon



Water harvesting pond for lifting of water for irrigation through solar water pump and nursery shed (IFS components)



Backyard poultry unit at KVK Ajmer



Backyard poultry unit at KVK Fatehpur

### KVK activities





MIDH training at KVK Dholpur

FLD on fennel under MIDH at KVK Bharatpur







Animal Health camp at KVK Dholpur



Nursery raising at KVK Dholpur



Nursery raising at KVK Fatehpur

### **Awards and Recognitions**











The First KVK Partnership Award" was awarded by the President of India on 04<sup>th</sup> March 2017 for Innovation in Sikar District to Dr. Junaid Akhatar, Sr. Sc. & Head and Dr. B.L. Asiwal, Asstt. Professor, KVK, Fatehpur, Sikar

## Glimpses of University activity













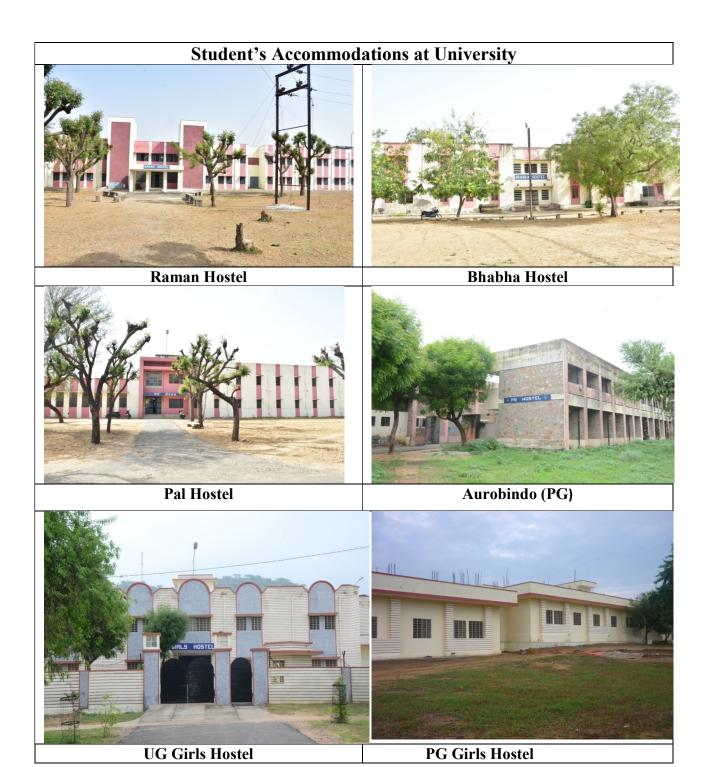














### Animal, Dairy and Poultry Instructional Farm



## **Capacity Building of Staff at DHRD**

















Milk Packaging Unit

Solar plate Installed at University Building



**Rain water Harvesting Structure** 



Fish Cultivation Initiated in water structure