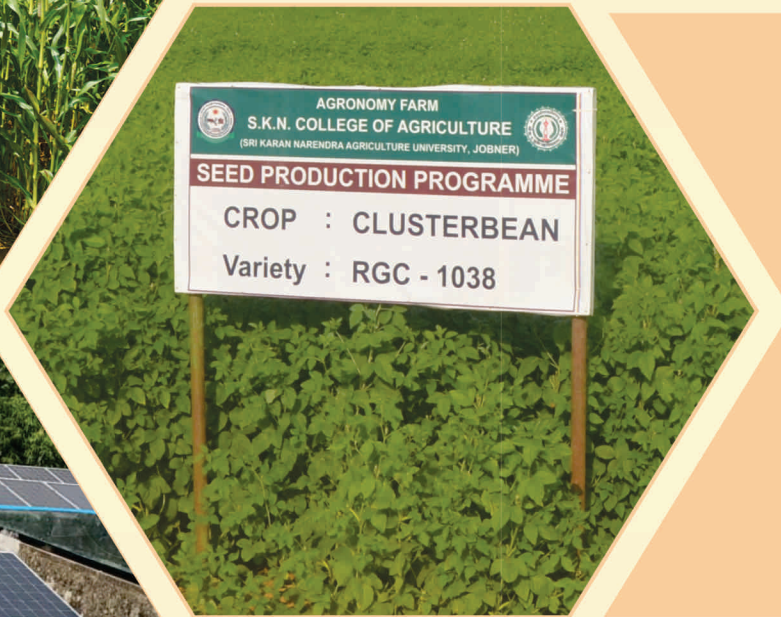


# Annual Report

## 2019-20



**Sri Karan Narendra Agriculture  
University, Jobner**



# **ANNUAL REPORT**

# **SKNAU**

**2019-2020**



**Established in 2013**

**Sri Karan Narendra Agriculture University, Jobner – 303329**  
**Distt. Jaipur, (Rajasthan)**  
**Website: [sknau.ac.in](http://sknau.ac.in)**



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Vice-Chancellor

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July, 2020



**Dr. J.S. Sandhu**  
Vice-Chancellor



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## FOREWORD

Annual Report is the reflection of capability, planning and execution of activities by an organization. It is a matter of great satisfaction that Sri Karan Narendra Agriculture University, Jobner is regularly publishing its Annual Report. The University has executed various activities and taken many new initiatives during the reporting year i.e. 2019-2020. The second convocation was organised on July 10, 2019 where in 984 Bachelors, 209 Masters, 54 Doctoral students received their degree. Among these, 31 students were awarded with Gold medals. This year, university won World Bank-ICAR funded project NAHEP (National Agricultural Higher Education Project) worth Rs. 23.89 Crore for Institutional Development Plan on “Strengthening Academic Ambience for Quality and Skill Oriented Undergraduate Education”. A Career Development Centre has been established in the University by NAARM, Hyderabad which will expedite the new horizons in undergraduates education. A cow urine center has been established in the University. The other academic activities include publication of more than 125 research papers, about 10 book chapters and 19 practical manuals to undergraduate students. The faculty has enthusiasm for attending different seminars/ workshop/trainings which is a reflection of their keen interest in education, research and human resource development.

Creation of Farmers Help Desk (FHD) by the Directorate of Research at RARI, Jaipur and adoption of a village by the University to develop it as smart village are other new initiatives during the reporting year. The university has received 10 RKVY projects worth Rs.1084.69 lakhs during financial year 2019-20. More than ten MoU have been signed between the University and other national and international institutions to establish a friendly relationship and to accelerate the academic, research and extension activities. Farmers and rural youth are being trained in setting up back yard poultry and raising of Sirohi goat through establishing demonstration units at each KVK (Krishi Vigyan Kendra) of the University.

Two biofortified pearl millet varieties RHB-233 and RHB-234 rich in iron and zinc contents have been developed by the University which are released at National level in 2019-20. In addition, Fennel variety RF-290 has been identified for National release in 30<sup>th</sup> National Group Meeting (Workshop) of AICRP on Spices held at Coimbatore (Tamil Nadu). AICRP on Pearl Millet project located at Rajasthan Agriculture Research Institute, Durgapura has been given the Best Centre Award by ICAR, New Delhi. The University has produced 936.58 quintal breeder seed of different crops like groundnut, pearl millet, cowpea etc. The University has organized several programmes to train farmers, youth and young scientists working in different parts of India.

It gives me a great pleasure to congratulate university officers, faculty, staff and students for creating the vibrant environment in the university through a number of activities. I hope that the University will set up new goals in coming years.

  
(J. S. Sandhu)





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## EXECUTIVE SUMMARY

Sri Karan Narendra Agriculture University, Jobner- Jaipur was established in 2013 by Government of Rajasthan under Agriculture University Jobner Act, 2013 (Bill No 39) with a view to strengthen the higher agricultural education, agro-climate specific research and extension education programmes in the field of agriculture and allied subjects. The mandate of the university is to (i) Attain excellence in higher agricultural education, to conduct quality research and extension education programmes in the field of agriculture and allied sciences, (ii) Development of improved varieties/hybrids of important field and horticultural crops, (iii) Development of an efficient and diversified land use system and location specific production technologies for enhancing productivity and (iv) Application of various digital and ICT based tools for speedy transfer of technology to the farmers and extension functionaries of the State Government.

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 university has a total of 184 teaching staff (Prof., Assoc. Prof. & Asstt. Prof.), out of that 160 are male and 24 female. Strength of Non-teaching staff (Administrative, Technical/ Ministerial/ Supporting) is 345 out of that 311 are male and 34 female. During period under report, 106 new posts are sanctioned by the State Government for new colleges.

In financial year 2019-20, a total of Rs. 112.28 Crore were provided to strengthen the academic activities, research and extension programmes in the University and funds received from State Government, ICAR, university resources and others. The internal revenue generated by the university is Rs. 377.34 lakhs which is 3.36% of the total budget.

### Academics

The University imparts quality education for the development of well-trained and specialized human resources in agriculture & allied sectors. The university has adopted the recommendations of V<sup>th</sup> Deans Committee of ICAR to impart undergraduate programme. 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 Jobner. SKN College of Agriculture, Jobner 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. The other agriculture colleges are located at Lalsot (Dausa), Fatehpur-Shekhawati (Sikar), Navgaon (Alwar), Kotputli (Jaipu), Baseri (Dholpur) and Kumher (Bharatpur).



Total number of students enrolled during 2019-20 in B.Sc. (Ag.), M.Sc. (Ag.) and Ph.D. programmes in constituent colleges of the university were 1742, 145 and 59, respectively. Out of 145 students enrolled during 2019-20 in M.Sc.(Ag.), 129 (88.9%) are getting fellowships. In case of Ph.D., 27 (45.7%) out of 59 students are receiving fellowship. In reporting year, 12 students got ICAR sponsored PG scholarship, 7 students got SRF and 3 students selected for ARS conducted by ASRB, New Delhi. In undergraduate programme 43.17 per cent of total enrolled students are receiving fellowship, mostly from Govt of Rajasthan.

SKN College of Agriculture, Jobner is fully residential having four boys hostels with capacity of 364 students and two girl's hostels with capacity of 204 students. One new girls hostel having capacity of 66 rooms of double occupancy with cost Rs. 300 lakhs is being constructed with the support of ICAR. This year practical crop production is re-started to impart practical training. The College of Agriculture, Lalsot was established in 2007 to run undergraduate programme B.Sc. (Hons) Ag. with an intake capacity of 62 students. The college has two boys' hostels and one girl's hostel. Besides teaching, the college has good facilities for sports and other activities. The college has been accredited by ICAR in the year 2017-18. The College of Agriculture, Kumher (Bharatpur) and College of Agriculture, Fatehpur- Shekhawati were established in 2013 to run undergraduate programme B.Sc. (Hons) Ag. with intake capacity of 62 students in each college. The basic infrastructure like building, hostels, residents, sports facilities etc have been developed in both the colleges and proposals have been submitted in ICAR for accreditation of these colleges. The College of Agriculture, Navgaon was established in May 2018. It offers UG programme B.Sc. (Hons) Ag. with intake capacity of 60 students including 20 payment seats. The process of land acquisition, infrastructure development etc in college are initiated.

### **Achievements and New Academic Initiatives in 2019-20**

**New Colleges:** Two more undergraduate colleges i.e. College of Agriculture, Baseri (Dholpur) and College of Agriculture, Kotputli, Jaipur have been started in 2019-20 after budget announcement of Govt of Rajasthan. The student intake capacity of each college is 60.

**NAHEP Project:** University received prestigious National Agricultural Higher Education Project (NAHEP) 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.

**Career Development Centre:** 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.

**Dual Degree Programme:** It is envisioned to strengthen linkage and research activities, particularly of Post-graduate students to take the research in premier institutes of country in the year 2019-20. MoU (Memorandum of Understanding) have been signed with other Universities and ICAR institutes viz. ICRISAT, Hyderabad; Directorate of Rapeseed & Mustard, Bharatpur; Rajasthan Kaushal University, Jaipur; CIAH, Bikaner; National Bureau of Soil Conservation and Land Use Planning, Nagpur; Agriculture University, Kota and Amity University, Jaipur. It has been decided if a student may be to do research work from 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.





**Cow Urine Centre:** The Indian agriculture is slowly moving towards organic agriculture and to meet the growing demand of cow urine and accordingly the cow urine processing centre has been established in the University for promoting organic farming and medicinal uses. It is also available for sale.

## 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 research works done in past three years by individual scientist were reviewed and target for next three year also discussed. The major emphasis was given to have more research projects and quality publications in peer reviewed journals. The research is being carried out in all three agro climatic zones in service area of the university through 3 ARS and 4 ARSS located in different locations. These station also being used to produce the seeds of various classes as per indent.

### Achievements and New Research Initiatives in 2019-20

**Publications:** During year under report, a total of 137 research articles are published in scientific journals, Besides this five books, 11 book chapter, six review articles, 19 practical manuals and 134 extension reports are also published during 2019-20.

**Varieties released:** In the year 2019-20, two bio-fortified hybrids (RHB 233 and RHB 234) of pearl millet were notified at national level and released for seed chain. These varieties are rich in Zn and Fe content over other commercial hybrids.

**Fennel:** A fennel variety RF-290 has been identified for National release by the 30<sup>th</sup> National Group Meeting (Workshop) of AICRP on Spices held at Coimbatore (Tamil Nadu) from 14-16 Nov. 2019.

### Technologies developed

In total, 17 improved production technologies have been developed during the reporting year at research stations/projects located in three agro-climatic zones for inclusion in the state PoP. University has produced, a total of 5624.64 quintal of seed which includes 2942.58 qt. breeder seeds in Kharif (339.69 qt) and Rabi (2602.89 qt) seasons of 2019-20, respectively. TFL seeds produced in Kharif and Rabi was 218.41 qt and 2463.65 qt, respectively thus making a total of 2682.06 qt TFL. With addition of new infrastructure of six new seed processing plants will help to process seed in time and to make available to farmers.

### New Research Projects

**RKVY projects:** In 2019-20, 29 projects were submitted under RKVY out of which ten projects were approved. Total cost of these projects is 1084.69 lacs. A one year Diploma in Agricultural Extension Services (DAESI) has started at ARS, Navgaon from Aug 28, 2019 for Input Dealers. This course was sponsored by MANAGE Hyderabad in collaboration with SIAM, Durgapura, Jaipur. There are total 40 participants who belong to Alwar and nearby areas.

**Revenue generation:** The University has developed the road map for next three years and it is decided to double the resource generation from Rs. 388.46 lakhs (2019-2020) to 880 lakhs by 2021-22. According by infrastructures are also been upgraded.



**Recognition :** AICRP on Pearl millet has been declared as best ICAR centre in 2019 for the significant research contribution in Pearl Millet. The award was given in the Annual Workshop of AICRP on Pearl millet, on May13-15, 2020 held online due to COVID-19 Pandemic. Director General, ICAR Awarded “Certificates & Shields” for the development of Barley varieties RD 2899 and RD 2907 during 58<sup>th</sup> All India Wheat & Barley Research Workers Meet held at ICAR-IARI Regional Station, Indore during 24-26 August, 2019.

## **EXTENSION EDUCATION ACTIVITIES**

The Directorate of Extension through 7 Krishi Vignan Kendra promote agricultural development through transfer of agro-techniques by imparting training, advisory and farm information to extension personnel, line departments, farmers and other stake holders. QRT Meeting organized at Durgapura under Chairman Dr S.L. Mehta to review the performance of KVKs of last five years. Chairman was satisfied with performance but there is need to give much emphasis to promote activities of KVKs more vigorously so that impact of KVKs become more visible. An MoU signed with NIF, Ahmadabad for Identification and motivation at grass-root level innovative farmers at KVK Fatehpur, Sikar. One unit of 25 Sirohi goats and one unit of 100 birds have been established at each KVKs of SKNAU under RKVY project during 2019-2020.

**SMART Village:** The University has adopted the Village Pachar under “Developing Smart Village Model to achieve objectives of Mission Antyodaya” in compliance to Governor of Rajasthan. This University initiated a number of activities in this village.

**COVID 19:** Social awareness programmes were organized during Covid-19 Pandemic. The masks and sanitizers were distributed. Detailed advisories were given to farmers for clean agricultural operations during corona period.

**Case Studies:** 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.

**Recognition:** Krishi Vignyan Kendra, Kumher, Bharatpur was awarded as the best NICRA-KVK of the ATARI Zone II for the year 2019 after its best efforts in implementing the NICRA- Technology Demonstration Component of Indian Council of Agricultural Research, New Delhi.

**DAESI:** One year Diploma course for Input Dealers titled “Diploma in Agricultural Extension Services for Input Dealers (DAESI)” is completed in DEE, SKNAU, Jobner. This course was sponsored by MANAGE Hyderabad in collaboration with SIAM, Durgapura, Jaipur.

**Demonstrations and Trainings:** In 2019-20, 4268 demonstrations were conducted on farmer's field covering 1287.3 ha area and total 390 training were organized where 8799 farmers, farm women, rural youth and extension functionaries participated. Total 31 On Farm Testing's were taken up by KVKs during academic year 2019-20.

## **Placement of students**

SKNAU, Jobner has a well established placement cell to look after the job opportunities and higher education of students in different areas. In 2019-20, a total of 246 students got jobs in different sectors.



## **DIRECTORATE OF PM&E/EDUCATION/STUDENT WELFARE/HRD/COE**

Directorate of PM&E prepares the University documents for submission to various platforms. The Annual Report 2018-19 and Varshik Prativedan 2019 have been prepared during the reporting year. This directorate has initiated the process of accreditation of College of Agriculture, Bharatpur and College of Agriculture, Fatehpur during the reporting year. DPME also organized the Review Meetings of the University teachers in the presence of Hon'ble Vice-Chancellor in October 2019 to assess the work done by them in last five years.

Directorate of Student welfare organized student elections, inter-collegiate athletics meet and other sports activities in 2019-20. The youth festival was successfully organized in the University. This directorate managed to send a group of twenty two students consisting of 15 girls and 7 boys of the University to participate in 20<sup>th</sup> All India Inter Agricultural Universities Youth Festival at Indira Gandhi Krishi Vishwavidyalaya, Raipur (Chhattisgarh) from 8- 12 Feb, 2020. The students participated in various events like group dance (folk), skit, mime, cartooning, collage, clay modeling, on the spot painting, poster making, rangoli, elocution, extempore etc.

Office of Controller of Examinations (CoE) conducted UG examinations in 08 constituent and 11 affiliated colleges of the University. In academic session 2019-20, the exams of I Sem 2019-20 were conducted and result declared. Our university was first in declaring results among all other agriculture universities of the state. The results of final year students have been declared. However, results of the student who have due papers has been kept on hold till exams are conducted.

Directorate of Education is responsible for post graduate teaching and student research in the university. This directorate facilitated to conduct online classes, comprehensive and viva voce examination due to Covid-19 Pandemic. 11 private agriculture colleges are also affiliated with this university and Director Education with his team inspected these colleges to continue the affiliation. Directorate holds the 4 Academic Councils meetings during reporting year.

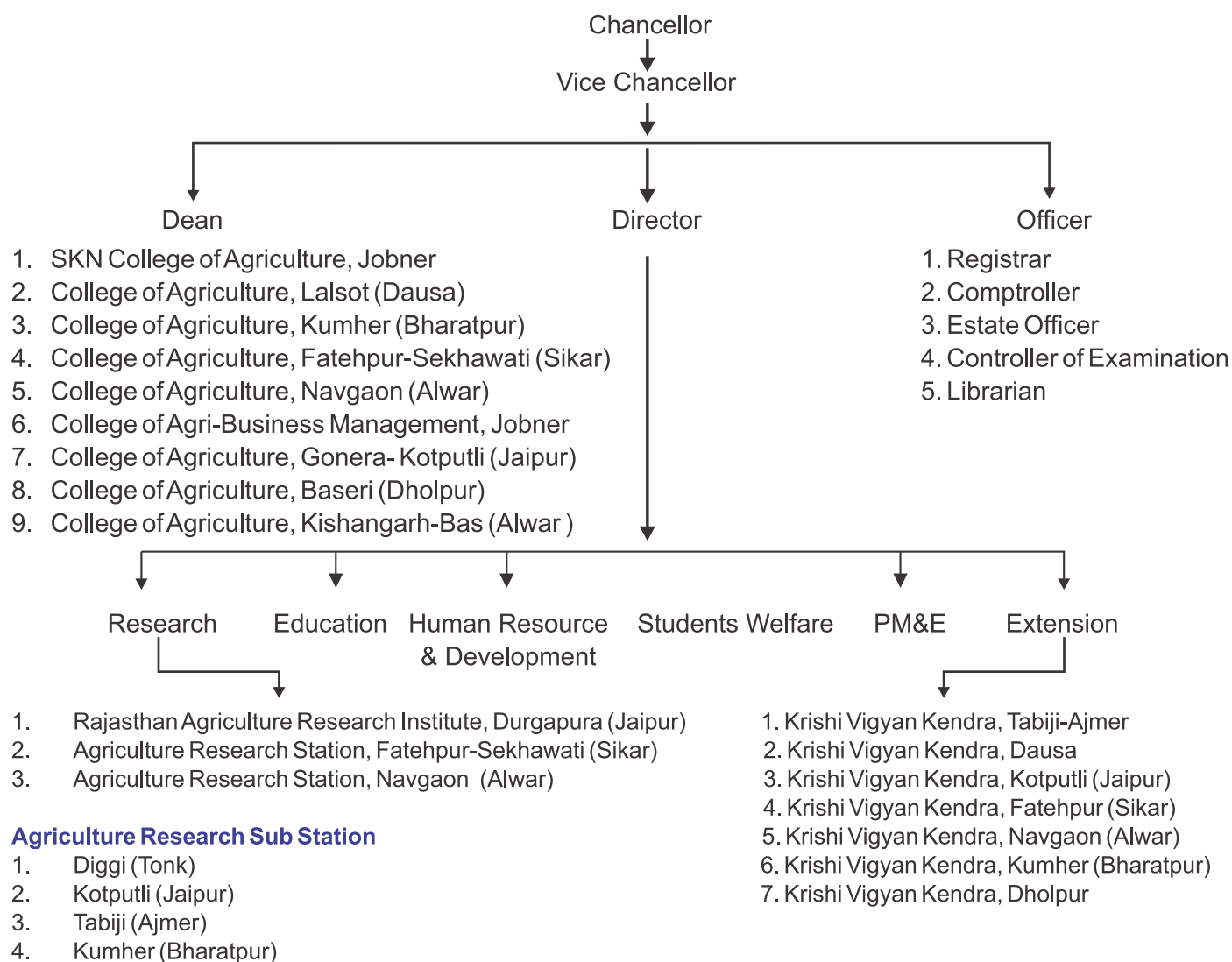
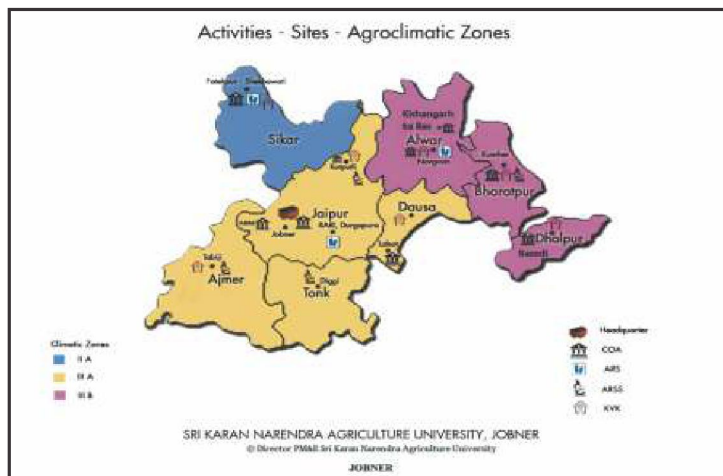
Directorate of Human Resource Development (HRD) is involved in enhancing experiential learning of agriculture students, promote excellence and capacity building of faculty in cutting edge areas. In 2019-20, an orientation program for newly recruited Assistant Professors/ SMSs was organized from February 06-26, 2020 at University Head Quarter. Beside this, one International Conferences, one CAFT training, one summer school, one winter school, one week trainings, several lectures and online Webinar have been organized in the University during reporting year.

**Solar Plants:** Clean energy or renewal energy are safe options to reduce the dependence on fossil energy and to cut the expenditure are guiding force to go for installation of solar system at roof tops of the University buildings. The roofs of the institutes have been used for installation. In 2019-20, a solar plant of 45 KW capacity has been installed at SKN College of Agriculture, Jobner. It is proposed to install 364 KW systems in current year. Besides that various other action is taken to keep the campus free from plastic, smoking etc.



# INTRODUCTION

Sri Karan Narendra Agriculture University (SKNAU), Jobner was established on 13<sup>th</sup> September 2013 by Govt. of Rajasthan. The territorial jurisdiction and responsibility of this University extends to three agro-climatic zones of the state which covers an area of 64 lakhs ha. This area is 1/6 land of the total area of the state, thus covering eight district of Rajasthan i.e. Sikar (Zone II A), Jaipur, Ajmer, Dausa, Tonk (Zone III A), Alwar, Bharatpur and Dholpur (Zone III B). The average rainfall of these districts is 500-700 mm.





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 University imparts quality education for the development of well-trained and specialized human resource in agriculture & allied sectors. It has eight constituent colleges out of which SKN College of Agriculture and SKN College of Agribusiness Management are located in the university campus at Jobner. SKN College of Agriculture, Jobner is the main teaching campus which offers four years B.Sc. (Hons.) Ag. with intake of 131 students; two years M.Sc. (Ag.) in 11 disciplines with intake of 84 students and Ph.D. in 8 disciplines with intake of 21 students. The other agriculture colleges are situated at Lalsot (Dausa, 2007), Kumher (Bharatpur 2013), Fatehpur Shekhwati (Sikar, 2013), Navgaon (Alwar, 2018), Gonera Kotputli (Jaipur 2019) and Baseri (Dholpur, 2019). The intake capacity of students in these colleges is 60. The two govt. and nine private colleges are also affiliated with the university. The total registered students in academic session 2019-20 were 4059. The M.Sc. (Ag.) in Nematology and Ph.D. programme in 5 disciplines also run at Rajasthan Agriculture Research Institute, Durgapura (Jaipur) which is the major research centre of the University. Admission in UG programme occurs through Joint Entrance Test (JET) while admission in M.Sc. (Ag.) & Ph.D. is on the basis of state level pre-PG test organized by one of State Agriculture Universities on rotation basis.

Directorate of Research was established in Nov 2013. There are seven research stations encompassing three agro-climatic zones under the administrative control of Directorate of Research, SKNAU, Jobner. These include Rajasthan Agriculture Research Institute (RARI) at Durgapura, Jaipur, two Agriculture Research Stations located at Navgaon (Alwar) and Fatehpur-Shekhawati (Sikar) and four Agricultural Research Sub-Stations at Tabiji (Ajmer), Kumher (Bharatpur), Gonera - Kotputli (Jaipur) and Diggi (Tonk). Rajasthan Agriculture Research Institute, Durgapura is the main research station of the University. The research grant mainly comes from ICAR & matching grant from the state govt. in the proportion of 75:25. There are 19 long term AICRP and AINP projects operating in Directorate of Research. Out of these 19 projects, sixteen are operating at Rajasthan Agricultural Research Institute and two at SKN College of Agriculture, Jobner and one at ARS Fatehpur-Shekhawati. The research is being conducted on most of the crops, fruits, vegetables and other crops suitable for this region. Apart from this 29 RKVY, 04 adhoc and 24 testing projects from private companies are in operation of the university during reporting year. About 879.43 ha land is available in different units of the university to conduct research and for seed production.

The Directorate of Extension Education promotes agricultural development through transfer of agro-techniques by imparting training, advisory and farm information to extension personnel, line departments, farmers, youths and other stake holders through seven KVKs located at Tabiji (Ajmer), Dausa, Gonera (Kotputli), Navgaon (Alwar), Kumher (Bharatpur), Dholpur and Fatehpur (Sikar). All the KVKs are engaged in On and Off campus training programmes conducting on farm testing, research on assessment and refinement of agricultural technologies, conducting front line demonstrations to demonstrate the production potential of latest crop varieties. Farm advisory/ information services are also provided by the KVKs through various literature, farmers' fair, field days, TV and Radio broadcast and other such activities. The main funding agency for Directorate of Extension Education is ICAR. However, some fund is also received from the State Govt. One monthly magazine "*Jobner-Kheti*" is regularly published by directorate for the farmers.



The Director PM&E, Director, Education, Director, HRD, DSW, CoE are responsible for other functions in the University. Registrar and Comptroller are posted by State Govt for looking after the administrative and financial work of the University. The civil work of the University is performed by Estate Officer.

### **Mission and Goals**

The University was established with the mission of providing education and upliftment of economically backward classes particularly of rural areas to adopt the modern technologies in the field of agriculture, animal husbandry and horticulture etc.

The mandate of the university is to (i) focus on teaching, research and extension education programmes in the field of Agriculture and Allied Sciences, (ii) development of improved varieties/hybrids of important cereals, pulses, millets, spices and horticultural crops suitable particularly for agro-climatic zones of the University, (iii) development of efficient and diversified land use system and location specific production technologies for enhancing productivity and (iv) development of speedy transfer of technology mechanism for the farmers and extension functionaries.

The University has been established with the goals to offer (i) Bachelor's, Master's and Doctoral degree programmes and short term diploma/certificate courses in the disciplines of Agriculture including Basic and Applied Science, Agriculture Engineering and Technology, Home Science, Dairy and Food Science and other Allied Sciences (ii) to carry out research (fundamental as well as applied) on the problems of agriculture and other allied sciences for the purpose of development of agriculture for the benefit of rural population in the State and (iii) to provide extension education programme for farmers and rural youth based upon findings of researchers.



# ADMINISTRATION

The Governor of the State is the Ex-Officio Chancellor of the University. The Board of Management (BOM) is the apex constitutional body of the University responsible to frame new policy or modify the existing policy 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 education in undergraduate programme. At present, the Governor of Rajasthan State, Hon'ble Shri Kalraj Mishra ji is the Chancellor of the University.

## University Officers (As on 30.6.2020)

Designation	Name
Vice-Chancellor	Prof. J. S. Sandhu
Registrar	Mrs. Alka Vishnoi
Comptroller	Sh. O. P. Bairwa
Controller of Examinations	Dr. N. K. Gupta
Director Research	Dr. A. K. Gupta
Director Extension Education	Dr. B. L. Kakralya
Director Prioritization, Monitoring & Evaluation	Dr. (Mrs.) Sunita Gupta
Director Education	Dr. M. L. Jakhar
Director Students' Welfare	Dr. I. M. Khan
Director HRD	Dr. S. Mukherjee
University Librarian	Dr. B. L. Jat
Dean, SKN COA, Jobner	Dr. A. K. Gupta
Dean, College of Agriculture, Lalsot	Dr. V. S. Yadav
Dean, College of Agriculture, Kumher-Bharatpur	Dr. D. R. Sharma
Dean, College of Agriculture, Fatehpur-Shekhawati	Dr. A. R. K. Pathan
Dean, College of Agriculture, Navgaon	Dr. K. C. Sharma
Dean, College of Agriculture, Kotputli	Dr. A. S. Baloda
Dean, College of Agriculture, Baseri	Dr. U. B. Singh
Dean, College of Agriculture, Kishangarhbas	Dr. S. S. Shekhawat
Dean, SKN CO ABM, Jobner	Dr. B. K. Sharma
Estate Officer	Sh. L. B. Singh



## Board of Management

As per the provisions of the Act and the Statutes, Board of Management (BoM) is the Chief Executive body of the University. It manages and supervises the properties and activities of the University and is responsible for the conduct of all administrative affairs of the University not otherwise provided for in the Act. During the reporting period 2019 -20, 05 meetings of Board of Management were held i.e. on Jan 24, 2019; July 09, 2019; November 21, 2019; December 24, 2019 and June 25, 2020. Following are the members of Board of Management (BoM) of SKN Agriculture University, Jobner.

S.No.	Status	Name
1.	Ex-Officio Chairman	Prof. J. S. Sandhu
2.	Ex-Officio Members	i. Secretary to Govt., DOA, GOR, Jaipur ii. Secretary to Govt., Deptt. of Animal Husbandry, GOR, Jaipur iii. Secretary to Govt., Finance Deptt., GOR, Jaipur iv. Secretary to Govt., Deptt, of Higher Education, GOR, Jaipur
3.	One Member of Rajasthan Legislative Assembly nominated by the Speaker of the Rajasthan Vidhan Sabha	Sh. Alok Beniwal
4.	Two eminent educationists/ scientists from the field of Agriculture nominated by the Government	Dr. P. C. Jain Dr. Sita Ram Chaudhary
5.	One distinguished agro-industrialist nominated by the Government	Sh. Pawan Kumar Sharma
6.	One outstanding woman social worker having background of rural advancement nominated by the Government	Smt. Vimala Jajoria
7.	One progressive farmer in the jurisdiction of the university nominated by the State Govt.	Dr. Nanda Ram Kuri
8.	One representative from the Indian Council of Agricultural Research	Dr. A.K. Vyas
9.	One Director nominated by the Vice-Chancellor	Dr. A.K. Gupta
10.	One Dean nominated by the Vice-Chancellor	-
11.	One Professor nominated by the Vice-Chancellor	Dr. L. R. Yadav
12.	Member Secretary	Smt. Alka Vishnoi





## Academic Council

The Academic Council consists of Deans, Directors, Controller of Examinations, University heads, one Professor from each faculty nominated by the Vice-Chancellor, Registrar and one eminent agricultural educationist from outside the university. The Director Education is the member secretary of the council. All the members of the Academic Council other than the ex-officio members and members referred in sub-section (2) of the Act held office for a term of two years. Vice-Chancellor is the Chairman of the academic council. The composition of the council during reporting year is listed below.

1.	Dr. Jeet Singh Sandhu, Hon'ble Vice-Chancellor, SKNAU, Jobner	Ex-Officio Chairman
2.	Dr. R.K. Pannu, Ex-Dean, COA, CCSHAU, Hisar (Haryana)	External Member
3.	Dr. A.K. Gupta, Dean & Faculty Chairman, SKNCOA, Jobner & Director Research, SKNAU, Jobner	Ex-Officio Member
4.	Mrs. Alka Vishnoi, Registrar, SKNAU, Jobner	Ex-Officio Member
5.	Dr. B.L. Kakralya, Director Extension Education, SKNAU, Jobner	Ex-Officio Member
6.	Dr. (Mrs.) Sunita Gupta, Director PM&E and Univ. Head (PI. Physiology), SKNAU, Jobner	Ex-Officio Member
7.	Dr. S. Mukherjee, Director HRD, SKNAU, Jobner	Ex-Officio Member
8.	Dr. I.M. Khan, Director Students' Welfare, SKNAU, Jobner	Ex-Officio Member
9.	Dr. V.S. Yadav, Dean, COA, Lalsot (Dausa)	Ex-Officio Member
10.	Dr. A.R.K. Pathan, Dean, COA, Fatehpur-Shekhawati	Ex-Officio Member
11.	Dr. U.B. Singh, Dean, COA, Kumher (Bharatpur)	Ex-Officio Member
12.	Dr. K.C. Sharma, Dean, COA, Navgaon-Alwar	Ex-Officio Member
13.	Dr. J.P. Yadav, Dean, COA, Baseri (Dholpur)	Ex-Officio Member
14.	Dr. A.S. Baloda, Dean, COA, Kotputli (Jaipur)	Ex-Officio Member
15.	Dr. B.K. Sharma, Dean, SKNCOABM, Jobner	Ex-Officio Member
16.	Dr. N.K. Gupta, COE, SKNAU, Jobner	Ex-Officio Member
17.	Dr. D.K. Gothwal, Prof.& Univ. Head, (PBG), SKNAU, Jobner	Member
18.	Dr. A.C. Shivran, Prof.& Univ. Head (Agronomy), SKNAU, Jobner	Member
19.	Dr. K.K. Sharma, Prof. & Univ. Head (Soil Sci. & Ag. Chem.), SKNAU, Jobner	Member
20.	Dr. Mahesh Dutt, Prof.& Univ. Head, (LPM), SKNAU, Jobner	Member
21.	Dr. Shailesh Godika, Prof. & Univ. Head (PI. Pathology), SKNAU, Jobner	Member
22.	Dr. L.N. Bairwa, Prof. & Univ. Head (Horticulture), SKNAU, Jobner	Member



23.	Dr. B.L. Jat, Prof. & Univ. Head (Entomology), SKNAU, Jobner	Member
24.	Dr. (Mrs.) Kiran Gaur, Assoc. Prof. & Univ. Head (Statistics, Mathematics & Computer Science), SKNAU, Jobner	Member
25.	Dr. A.C. Mathur, Prof. (Pl. Pathology), RARI, Durgapura	Co-opted Member
26.	Dr. Sudesh Kumar, Director, RARI, Durgapura	Co-opted Member
27.	Dr. Ranveer Singh, Prof. (PBG), RARI, Durgapura	Co-opted Member
28.	Dr. O.P. Garhwal, Nodal Officer, State AUs	Invitee Member
29.	Sh. O.P. Bairwa, Comptroller, SKNAU, Jobner	Invitee Member
30.	Dr. M.L. Jakhar, Director Education, SKNAU, Jobner	Member Secretary

### University Heads of Departments

University head is appointed by the Vice-Chancellor for a term of three years as per the university Statutes and Acts. Presently the term is for two years. The list of University heads of different departments during the reporting period is given below.

S. No.	Name of Department	Head
1	Agronomy	Dr. A. C. Shivran
2	Soil Science & Ag. Chemistry	Dr. K. K. Sharma
3	Entomology	Dr. B. L. Jat
4	Plant Pathology	Dr. Shailesh Godika
5	Extension Education	Dr. I. M. Khan
6	Horticulture	Dr. L. N. Bairwa
7	Plant Breeding & Genetics	Dr. D. K. Gothwal
8	Plant Physiology	Dr. Sunita Gupta
9	Biochemistry	Dr. A. K. Gupta
10	L.P.M.	Dr. Mahesh Dutt
11	Ag. Economics	Dr. A. K. Gupta
12	Statistics	Dr. Kian Gaur
13	Nematology	Dr. R. L. Middha

### Important meetings held:

5 meetings of Board of Management and four meetings of Academic Council were conducted in the University during 2019-20. Beside, review meetings of scientists were organized under chairmanship of Dr. J.S. Sandhu, Hon'ble Vice Chancellor to review the work done in last five years and to make future research programmes .



S. No.	Particular		Dated
1.	Board of Management	10 <sup>th</sup> BOM meeting	24.01.2019
		11 <sup>th</sup> BOM meeting	06.07.2019
		12 <sup>th</sup> BOM meeting	21.11.2019
		13 <sup>th</sup> BOM meeting	24.12.2019
		14 <sup>th</sup> BOM meeting	25.06.2020
2.	Academic Council	8 <sup>th</sup> A.C. meeting	09.07.2019
		9 <sup>th</sup> A.C. meeting	18.11.2019
		10 <sup>th</sup> A.C. meeting	24.12.2019
		11 <sup>th</sup> A.C. meeting (online)	17.06.2020
3.	Others	Review meeting of the University scientists	Oct 9-14, 2019

### Staff Strength (Teaching)

The sanctioned post of teaching is 399, out of which 186 are filled and 213 posts are vacant. In addition to this, 52 teaching posts have been sanctioned for new colleges comprising 40 Asstt. Professors, 8 Associate Professors and 4 posts of Dean.

Name of Post	Non Plan			State Plan			ICAR Plan						Total		
	Sanc.	Filled	Vacant	Sanc.	Filled	Vacant	75: 25 per cent			100 per cent (KVK's)			Sanc.	filled	vacant
							Sanc.	Filled	Vacant	Sanc.	Filled	Vacant			
Professor	12	6	6	0	0	0	2	0	2	0	0	0	14	6	8
Assoc. Professor	43	7	36	15	5	10	14	7	7	0	0	0	72	19	53
Asstt. Professor	160	85	75	67	22	45	36	21	15	24	16	8	287	144	143
Sr. Scientist & Head	0	0	0	0	0	0	0	0	0	7	5	2	7	5	2
S.M.S.	0	0	0	0	0	0	0	0	0	18	12	6	18	12	6
Tech. Officer	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
<b>Total</b>	<b>215</b>	<b>98</b>	<b>117</b>	<b>70</b>	<b>27</b>	<b>55</b>	<b>52</b>	<b>28</b>	<b>25</b>	<b>49</b>	<b>33</b>	<b>16</b>	<b>399</b>	<b>186</b>	<b>213</b>

### Staff strength (Non-teaching)

The sanctioned posts of non teaching (Officers, Ministerials, Technical and Supporting Staff) is 660, out of which 345 are filled. In addition to this, 37 non teaching posts have been sanctioned for new colleges which include Lab Asstt. Farm Manager, Asstt. Librarian, Clerk Grade II etc.



Head	Officer		Ministerial		Technical		Supporting		Total	
	Sanctd	Filled	Sanctd	Filled	Sanctd	Filled	Sanctd	Filled	Sanctd	Filled
Non-Plan	7	3	77	58	105	78	173	105	<b>362</b>	<b>244</b>
State Plan	27	4	51	25	57	07	49	14	<b>184</b>	<b>50</b>
ICAR	0	0	14	02	82	40	18	09	<b>114</b>	<b>51</b>
<b>Total</b>	<b>34</b>	<b>07</b>	<b>142</b>	<b>100</b>	<b>244</b>	<b>125</b>	<b>240</b>	<b>128</b>	<b>660</b>	<b>345</b>

### Break up of Staff Strength

The university has employed teaching and non teaching staffs from all the categories of the society including General, SC, ST, OBC, PH and others. The ratio of male:female employees in the university is 1:6.75 and 1:9.14 for teaching & non teaching, respectively. A break up of these positions is given below.

S.No.	Category	Teaching staff		Total	Non Teaching staff		Total
		Male	Female		Male	Female	
1.	General	74	18	98	151	18	169
2.	SC	26	03	29	27	07	34
3.	ST	24	0	24	17	02	19
4.	OBC	30	03	33	107	7	114
5.	MBC	03	0	03	04	0	04
6.	PH	01	0	01	1	0	01
7.	Minority	04	0	04	4	0	04
	<b>Total</b>	<b>162</b>	<b>24</b>	<b>186</b>	<b>311</b>	<b>34</b>	<b>345</b>

### University Budget

The University receives budget from various sources like State Government, ICAR, own income etc to impart education, research and extension activities. A total of Rs.11228.38 lakhs was received during the year 2019-20. This budget comprised 76.12 per cent from state government, 21.72 per cent from ICAR and 2.15 per cent from other sources. The per cent budget utilization was 44.07, 38.51 and 9.16 per cent for teaching, research and extension activities, respectively. 8.26 per cent of total budget was utilized for library, student activities, civil work etc during the reporting year.

### Head wise budget allocation in 2019-20 (Rs. in lakhs).

Head	Salary	TA	Recurring	Non-Rec	Civil	Total
Non Plan	5128.64	13.00	105.70	0.00	00.00	5247.34
State Plan	2283.50	11.50	297.00	90.00	618.00	3300.00
<b>Total</b>	<b>7412.14</b>	<b>24.50</b>	<b>402.70</b>	<b>90.00</b>	<b>618.00</b>	<b>8547.34</b>
ICAR						
DS grant	-	-	119.86	21.43	98.78	240.07
AICRP/AINP	1036.99	17.59	117.70	10.81	-	1183.09
100% ICAR adhoc project	52.83	2.16	94.47	-	-	149.46
KVKs	629.97	10.50	167.72	58.50	-	866.69
<b>Total</b>	<b>1719.79</b>	<b>30.25</b>	<b>499.75</b>	<b>90.74</b>	<b>98.78</b>	<b>2439.31</b>
Others						
OCS	13.67	0.60	13.46	-	-	27.73



RKVY	-	-	160.00	-	-	160.00
PVTs	-	-	54.00	-	-	54.00
<b>Total</b>	<b>13.67</b>	<b>0.60</b>	<b>227.46</b>	<b>-</b>	<b>-</b>	<b>241.73</b>
<b>Grand Total</b>	<b>9145.60</b>	<b>55.35</b>	<b>1129.91</b>	<b>180.74</b>	<b>716.18</b>	<b>11228.38</b>

**Details of per cent budget received from different sources during 2019-20 (Rs. in lakhs).**

Source	Budget Allocation	Percent of total budget
Internal revenue	377.34	3.36
State Government	3300.00	29.39
Non-Plan	4870.00	43.37
<b>Total</b>	<b>8547.34</b>	<b>76.12</b>
<b>ICAR</b>		
DS grant	240.07	2.14
AICRP/AINP	1183.09	10.54
100% ICAR adhoc project	149046	1.33
KVKs	866.69	7.72
<b>Total</b>	<b>2439.31</b>	<b>21.72</b>
<b>Others</b>		
OCS	27.73	0.25
Others (RKVY)	160.00	1.42
PVTs	54.00	0.48
<b>Total</b>	<b>241.73</b>	<b>2.15</b>
<b>Grand Total</b>	<b>11228.38</b>	<b>100.00</b>

**Head wise Expenditure on different activities during 2019-20 (Rs. in lakhs).**

Source	Non Pan	State Plan	ICAR	Others	Total
Education	2813.09	1994.10	141.29	0.00	4948.48
Research	2264.22	673.80	1332.55	54.00	4324.57
Extension	158.70	3.10	866.69	0.00	1028.49
Library	0.00	1.00	0.00	0.00	1.00
Student activities	11.33	10.00	0.00	0.00	21.33
OCS	0.00	0.00	0.00	27.73	27.73
Civil work	0.00	618.00	98.78	0.00	716.78
Others (RKVY)	0.00	0.00	0.00	160.00	160.00
<b>Total</b>	<b>5247.34</b>	<b>3300.00</b>	<b>2439.31</b>	<b>241.73</b>	<b>11228.38</b>



## ACADEMIC ACTIVITIES

The SKN Agriculture University has eight constituent colleges out of which SKN College of Agriculture and SKN College of Agribusiness Management are located in the university campus at Jobner. SKN College of Agriculture, Jobner is the only PG College which offers B.Sc. (Hons.) Ag., M.Sc. (Ag.) and Ph.D. The other agriculture colleges are situated at Lalsot (Dausa, 2007), Kumher (Bharatpur 2013), Fatehpur Shekhwati (Sikar, 2013), Navgaon (Alwar, 2018), Gonera Kotputli (Jaipur 2019) and Baseri (Dholpur, 2019). Admission in UG programme is through Joint Entrance Test (JET) whereas in M.Sc. (Ag.) & Ph.D. is through pre-PG test conducted by one of State Agriculture Universities on rotation basis. The total intake of undergraduate students in the university is 522 including 18 ICAR and 100 payment seats. In 2019-20, a total of 1725 undergraduate students were admitted in different constituent colleges of the University. The SKN College of Agriculture, Jobner is offering Post Graduate programme in 11 disciplines with 83 seats including 18 seats of ICAR, New Delhi. The Ph.D. Programme is offered in 7 disciplines at SKN College of Agriculture, Jobner and in 5 disciplines at Rajasthan Agriculture Research Institute, Durgapura with total 44 seats. Besides, 11 private undergraduate agriculture colleges are also affiliated with the University which admit 780 students every year through same process. In 2019-20, total 2334 students were enrolled in all the classes in these affiliated colleges Thus in reporting year total 4059 students were enrolled in the university.

### Student's strength in undergraduate programme in constituent colleges of the University.

S. No.	Name of the College	Year of establishment	Number of students in each year				Total
			I	II	III	IV	
1	Sri Karan Narendra College of Agriculture, Jobner (Jaipur)	1947	130	112	120	113	<b>475</b>
2	College of Agriculture, Lalsot (Dausa)	2007	61	53	56	59	<b>229</b>
3	College of Agriculture, Fatehpur Shekhawati (Sikar)	2013	62	54	55	58	<b>229</b>
4	College of Agriculture, Kumher (Bharatpur)	2013	61	57	61	57	<b>236</b>
5	College of Agriculture, Navgaon	2018	60	56	-	-	<b>116</b>
6	College of Agriculture, Gonera, Kotputli	2019	60	-	-	-	<b>60</b>
7	College of Agriculture, Baseri	2019	60	-	-	-	<b>60</b>
8	SKN College of Agri-Business Management, Jobner	2016	57	109	103	51	<b>320</b>
						<b>Total</b>	<b>1725</b>



**Student's strength in undergraduate programme in affiliated colleges of the University.**

S. No.	Name of the College	Year of establishment	Number of students in each year				Total
			I	II	III	IV	
1	B.B.D. Govt. P.G. College, Chimanpura-Shahpura (Jaipur)	1984	56	51	55	57	219
2	Government College, Uniara (Tonk)	2013	54	57	56	55	222
3	Dayanand College, Ajmer		60	57	57	57	231
4	M.B. Agriculture College, Tonk	2013	55	53	49	56	213
5	Late Mool Chand Meena Agriculture College, Lalsot (Dausa)	2013	59	57	57	56	229
6	Pt. Deen Dayal Upadhyay Agriculture College, Deoli, (Tonk)	2015	114	105	100	112	431
7	Maharaja Surajmal Agriculture College, Rahimpur, (Bharatpur)	2015	58	52	45	48	203
8	O. P. Agriculture College, Budhwal, Behror (Alwar)	2015	52	51	47	52	202
9	G. L. Memorial Agriculture College, Kishangarh Bas, Alwar	2016	58	48	47	36	189
10	Rukmani Devi Memorial Agriculture College Mandawar (Mahua), Dausa	2018	51	41	-	-	92
11	Shekhawati Institute, Sikar	2019	103	-	-	-	103
						<b>Total</b>	<b>2334</b>

**Table 2: Students intake capacity and total enrolment in post graduate programmes.**

S.No	Department	M.Sc. (Ag.)				Ph.D.			
		Intake Capacity		Total Enrolment		Intake Capacity		Total Enrolment	
		Jobner	Durgapura	Jobner	Durgapura	Jobner	Durgapura	Jobner	Durgapura
1	Agronomy	10	-	19	-	04	04	07	01
2	Plant Breeding & Genetics	10	-	17	-	04	04	08	04
3	Horticulture	10	-	20	-	04	04	10	04
4	Extension Education	09	-	16	-	02	-	05	-
5	Ag. Economics	07	-	14	-	-	-	01	-
6	Soil Science	08	-	13	-	02	-	07	-
7	Plant Pathology	08	-	15	-	04	04	11	04
8	Entomology	07	-	14	-	04	04	10	04
9	Plant Physiology	05	-	09	-	-	-	-	-
10	Livestock production	05	-	08	-	-	-	-	-
11	Nematology	-	04	-	04	-	-	-	-
<b>Total</b>		<b>83</b>		<b>149</b>		<b>44</b>		<b>76</b>	



### Students belong to different Category

The enrolled students of the University represent almost all the cast categories of the society i.e. General, SC, ST, OBC, handicapped and others. There is good number of girl's students in UG as well as PG programmes. The boys:girls ratio is 1:0.52, 1:1 and 1:0.69 in UG, PG and Ph.D., respectively.

### Category wise students enrolled in different degree programmes in constituent colleges of the University.

Class Category	UG			PG			Ph.D.			Grand Total
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
General	258	187	445	41	44	85	43	29	72	<b>599</b>
S.C.	155	68	223	06	02	08	05	04	09	<b>238</b>
ST	92	42	134	09	10	19	04	02	06	<b>157</b>
OBC	578	281	859	17	18	35	17	14	31	<b>926</b>
MBC	14	04	18	03	03	06	02	-	02	<b>27</b>
PH	10	02	12	-	-	-	-	-	-	<b>14</b>
DP	8	03	11	1	-	01	-	-	-	<b>13</b>
EWS	17	06	23	02	02	04	-	-	-	<b>29</b>
<b>Total</b>	<b>1132</b>	<b>593</b>	<b>1725</b>	<b>79</b>	<b>79</b>	<b>158</b>	<b>71</b>	<b>49</b>	<b>120</b>	<b>2003</b>

### Hostel Facilities

The SKN College of Agriculture, Jobner is fully residential college having 4 boys and 2 girls hostels. In other colleges limited hostel facilities are available. In these colleges construction of boys and girls hostels are going on with the support of ICAR, New Delhi.

### Availability of hostels with capacity in constituent colleges of the University.

S.No.	Name of college	No of hostels		Capacity		Total
		Boys	Girls	Boys	Girls	
1	SKN College of Agriculture, Jobner	04	02	368	181	549
2	College of Agriculture, Lalsot	02	-	92	-	92
3	College of Agriculture, Fatehpur-Shekhawati	-	01	-	16	16
4	RARI, Durgapura	-	02	-	19	19
					<b>Total</b>	<b>676</b>





### Staff strength in different Constituent colleges of the University

There are ninety eight teaching staff in constituent colleges of the University out of which 85 are male and 13 female. The total strength of non teaching staff is 149 which represent 136 male and 13 female.

### Staff strength in constituent colleges of the University

S.No.	Constituent College	Teaching Staff		NonTeaching Staff	
		Male	Female	Male	Female
1.	SKN College of Agriculture, Jobner	50	08	107	12
2	College of Agriculture, Lalsot	11	-	06	-
3	College of Agriculture, Bharatpur	09	02	04	-
4	College of Agriculture, Fatehpur	06	01	08	01
5	College of Agriculture, Navgaon	01	-	05	-
6	College of Agriculture, Baseri	05	01	02	-
7.	College of Agriculture, Kotputli	03	01	04	-
<b>Total</b>		<b>85</b>	<b>13</b>	<b>136</b>	<b>13</b>

### Staff strength category wise in constituent colleges of the University

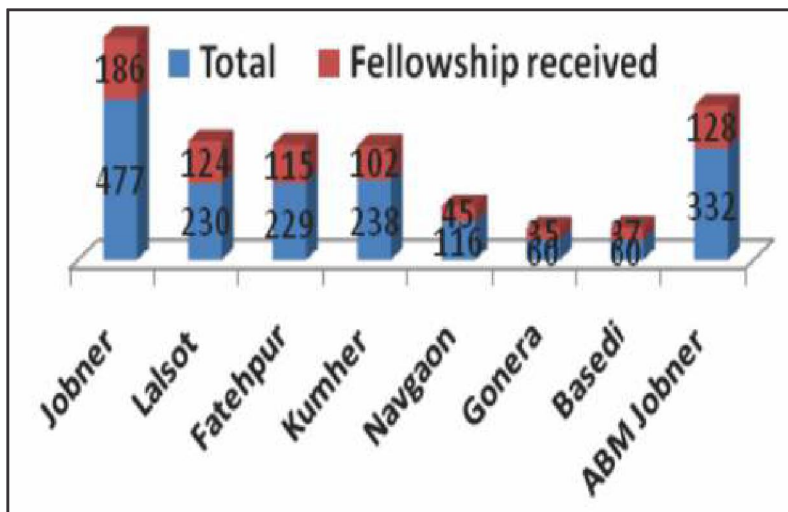
The teaching and non teaching staff of the different constituent colleges represent almost all the cast categories of the society *i.e.* General, SC, ST, OBC, handicapped and others as shown below.

### Staff strength category wise in constituent colleges of the University (2019-20)

Category	Teaching staff		Total	Non Teaching		Total
	Male	Female		Male	Female	
General	28	9	37	43	3	102
SC	13	0	13	9	4	27
ST	12	0	12	12	2	16
OBC	28	04	32	69	4	91
SBC	0	0	0	01	0	05
PH	02	0	02	01	0	02
Minority	02	0	02	01	0	02
<b>Total</b>	<b>85</b>	<b>13</b>	<b>98</b>	<b>136</b>	<b>13</b>	<b>148</b>

### Scholarship/Fellowship availed by the constituent college of the University

The students are receiving scholarship offered by UGC, ICAR, Govt. of Rajasthan and University. In UG out of 1725 students 681 students received the scholarship, whereas in M.Sc. out of 145 students enrolled 129 are getting fellowship. In case of Ph.D. 27 out of 59 students are receiving Fellowship. In total, 43.17 per cent UG, 88.9 per cent PG and 45.7 per cent Ph.D. students received fellowship during 2019-20.





## Result Declaration

The I Semester's Examinations of Academic Session 2019-20 were conducted in Dec-Jan 2019. The second semester examinations of session 2019-20 were scheduled in June but due to COVID-19, it could not be conducted. The result of B.Sc. (Hons) Ag. final year passed students has been declared except those having due papers. The number of passed out students in M.Sc. (Ag.) and Ph.D. during academic Session 2019-20 are 61 and 25, respectively.

## Subject-wise Passed-out Master / Ph.D. Candidates (2019-20)

S.No.	Subject	M.Sc.	Ph.D.	Total
1	Agronomy	08	03	11
2	Agricultural Economics	09	03	12
3	Plant Breeding & Genetics	05	06	11
4	Horticulture	06	05	11
5	Entomology	10	04	14
6	Extension Education	07	01	08
7	Soil Science	06	-	06
8	Plant Pathology	06	03	09
9	Plant Physiology	01	-	01
11	Livestock Production & Management	03	-	03
	<b>Total</b>	<b>61</b>	<b>25</b>	<b>86</b>

**Academic Excellence:** In the reporting year, 12 students got ICAR sponsored PG scholarship, 7 students got Senior Research Fellowship and 3 students were selected in ARS exam conducted by ASRB, New Delhi. Apart from this, 31 students qualified NET conducted by ASRB, New Delhi in Agriculture and Allied sciences.

**Convocation:** The Second Convocation of the University was organised on July 10, 2019 at SKN Agriculture University, Jobner. In total, 984 Bachelors, 209 Masters and 54 Doctoral degrees were conferred to the students by Governor of Rajasthan Sh. Kalyan Singh ji. Besides, 3 Bachelor and 28 Masters students were awarded with Gold Medal after standing first in the order of merit in their class/subject.

**Job Placement:** In 2019-20, 122 students of the University got placement in different organizations viz. 16 students got job in Banks, 94 students selected in Govt of Rajasthan as Assistant Agriculture Officers (AAO), 3 in ICAR services and 16 in Private Organizations. Campus interview could not be arranged by private companies due to COVID-19 Pandemic.

## National Cadet Core (NCC)

- NCC unit is running in the SKN College of Agriculture, Jobner. In 2019-20, 89 students of the college were registered in NCC, comprising 41 boys and 48 girls. 56 cadets participated in a 10 days 'Combined Annual Training Camp' at Apex Group of Institutions AGI, IS-2018, Industrial Area, Ramchandrapura, Sitapura Extn, Jaipur from 20-08-2019 to 29-08-2019.
- NCC cadets actively participated in cleaning and weeding activities in college and the University campus, different hostels of SKN College of Agriculture, Jobner, Shiv Mandir and guest house. All the cadets participated in Swachhta awareness rally on birth anniversary of Mahatma Gandhi. The NCC cadets actively participated in plantation drive at college campus and 15 cadets donated blood in blood donation camps during the reporting year.
- The NCC students Dikshita Rathod and Priyanks Kantwa received the Merit Scholarships from Cadet Welfare Society, New Delhi in 2019-20.

### **National Social Services (NSS)**

Every undergraduate college has one NSS unit. The SKN College of Agriculture Jobner has two NSS units. Thus, there are 9 NSS units in the University. In 2019-20, total 903 students were registered in NSS in different colleges out of which 624 were boys and 279 girls. The NSS units organized many activities throughout the year. Some of them are listed below.



**Blood Donation Camp:** Blood donation camps were organized by NSS units of most of the colleges. In total, 117 units of blood was donated by NSS volunteers during the reporting year.

**Pre RD camp:** Two NSS volunteers of SKNCOA, Jobner got selected for Pre RD camp in the selection trial held at University of Rajasthan, Jaipur and participated in the pre RD camp at Chandigarh.



**Jal Shakti Abhiyan:** The Jal Shakti Abhiyan was launched by Govt of India from 1st July, 2019. Professor J. S. Sandhu, Hon'ble Vice-Chancellor, SKNAU, Jobner delivered a lecture on Jal Shakti to the students of SKNCOA, Jobner on Oct 2, 2019. The NSS volunteers made aware

and motivated the people about judicious use of water. Rallies were organized to give message to save water for future use, and to aware about usefulness of rain water harvesting pond/ tank for conservation of rain water. The NSS unit of COA, Kumher organized a training on Jal Shakti on 26<sup>th</sup> July, 2019.

**Swachh Bharat Summer Internship-2019:** This program was organized by most of the NSS units of the SKNAU, Jobner in the month of July. Activities like campus cleaning, solid waste management, waste plastic segregation, water drainage etc., were undertaken by the volunteers to aware the society for cleanliness and its importance for the country as a whole. About 137 students participated in the programme. Swachh Bharat Summer Internship Programme was successfully completed by the 51 NSS volunteers of the constituent colleges from 16.07.2019 to 31.07.2019.

**Self Defence Training:** The 51 NSS volunteers of SKN College of Agriculture, Jobner, 100 volunteers from College of Agriculture, Lalsto and 104 volunteers of SKN College of ABM, Jobner were provided self defence training.



**Fight against Corona Virus (Covid-19):** NSS volunteers actively participated to develop awareness about COVID-19 Pandemic through posters and rallies. They also helped in making and distributing masks, serving food, and other emergencies during Pandemic situations. The NSS volunteers participated in IFS Forensic Science Quiz and, a pledge to adopt best practices on prevention of Coronavirus Disease as specified by World Health Organization, COVID-19 (Awareness and Prevention) Conducted by Global Institute of Healthcare Management (GIHM), Delhi.

### Games and Sports

The Inter-collegiate tournaments of SKN Agriculture University, Jobner was organized at SKN college of Agriculture, Jobner from 16-19 Oct, 2019. More than 260 students of constituent colleges of the University participated. Kabaddi, Volleyball, Basketball, Table Tennis, Badminton and Athletics events were organized in this tournament. These events were conducted by Secretary, University Sports Board in the supervision of Director Students Welfare, SKN Agriculture University, Jobner. The best players in each event were selected to participation in All India Inter Agricultural Games and Sport Meet-2019-20. Miss Poonam Kumari, student of SKN College of Agriculture, Jobner was awarded with “ Best All Round Player”.



### Cultural, Literary and Fine Art

Inter-collegiate competitions for fine arts, cultural & literary during Youth Festival 2019 of the university were organized from 16.10.19 to 19.10.19 at SKN College of Agriculture, Jobner. About 180 students from different constituent colleges of SKNAU, Jobner participated in these activities. SKN College of Agriculture, Jobner got first position in rangoli, mime, on spot painting, group dance, essay Hindi, cartooning, extempore, and elocution. College of Agriculture, Bharatpur got first prize in collage. College of Agriculture, Fatehpur got

first rank in light vocal, solo dance, monoacting, poster making and clay modeling. SKN College of Agribusiness Management, Jobner was first in group song, skit, one act play, essay English, poetry English and debate. The winner students were awarded with memento and certificates.

A group of twenty two students consisting of 15 girls and 7 boys of the SKN Agriculture University, Jobner participated in 20<sup>th</sup> All India Inter Agricultural Universities Youth Festival at Indira Gandhi Krishi Vishwavidyalaya, Raipur (Chhattisgarh) from 8- 12 Feb, 2020. The students participated in various events like group dance (folk), skit, mime, cartooning, collage, clay modelling, on the spot painting, poster making, rangoli, elocution, extempore etc.



### Students Election

The Students Union Elections-2019-20 were successfully conducted on 27.08.2019 in all the constituent colleges of SKN Agriculture University, Jobner wherein college President, Secretary, Joint Secretary and University CR were elected. The election for Central students Union was conducted at SKN Agriculture, Jobner on 28.08.2019, in which Miss Heera Kumari, SKNCOA, Jobner was elected as University President, Miss Pooja Meena of COA, Lalsot was elected as Secretary and Mr. Guddu Solanki of COA Kumher (Bharatpur) was elected as Joint Secretary for CSU-2019-20.



### Orientation Programme

The orientation of newly admitted students of all the constituent colleges was conducted in the month of July-August in the respective colleges. The newly admitted students of B Sc (Ag), M. Sc. and Ph. D. students were made aware about different college activities regarding the academic, cultural, NCC, NSS, Games and sports, Library, hostel facilities etc, different rules, regulations and other facilities available. Students were advised to maintain academic environment in the colleges.

### Visit of Dignitaries:-

- Dr. R.K.Pannu, Emeritus Professor, Agronomy and former Dean CCSHAU, Hisar visited the SKN CoA, Jobner during reporting year to conduct comprehensive examinations of PG students
- Dr. P. K. Rai, Director, DRMR, Sewar, visited Department of Pathology to conduct Ph D viva voce exam of Mr. Sajjan Chaudhary & comprehensive examinations of PG Students. An MoU was also signed between two institutes for mutual co-operation & help in research and academics.



Prof. J.S. Sandhu, Hon'ble Vice Chancellor, SKN Agriculture University, Jobner visited College of Agriculture, Navgaon, ARS, Navgaon and KVK, Navgaon on 03.11.2019.

- Dr. S. C. Dubey, Professor & Director, Quarantine Division, IARI, New Delhi visited Department of Plant Pathology SKN CoA, Jobner on 03-03-2020 to conduct Ph D viva voce exam of Mr. Manoj Kumar Meena. He also conducted the comprehensive examinations of PG students.
- Dr. M.S. Rao, Head, ICAR-NBSS & LUP Regional center, Udaipur along with two scientists visited the University to sign the MoU for soil monolith development.
- Dr. B. R. Chhipa, Former Vice Chancellor, SKN Agriculture University, Jobner visited the University and interacted with faculty members and students.
- Dr. K.H. Singh Principal Scientist, CAR-DRMR, Bharatpur visited the university for monitoring the trials of AICRP Taramia unit, SKN College of Agriculture, Jobner.
- Dr. Krishanmurty, Principal Scientist, Indian Seed Spices Research, Calicut visited for monitoring of trials on AICRP -Seed Spices at SKN College of Agriculture, Jobner.
- Dr. Y. K. Sharma, Principal Scientist, National Research Centre on Seed Spices, Ajmer, monitored the trials on AICRP -Seed Spices at SKN College of Agriculture, Jobner.
- Dr. P.L. Saroj, Director, CIAH, Bikaner, was the Chief Guest of the Brain Storming session on “Innovation and productivity of the Arid fruits”. An MoU was also signed for collaboration in research, teaching and use of facilities exist in the institutes for mutual benefits.
- Dr. Lalit k. Panwar, (Retd. IAS) and Hon'ble Vice-Chancellor, Rajasthan ILD skills University, Jaipur on 13.01.2020. An Mou has been signed between two institutes for research, teaching and laboratory facilities for students and faculty



### Guest Lectures

- Professor J.S. Sandhu, Hon'ble Vice chancellor, SKNAU, Jobner delivered a lecture on Jal Shakti on 2<sup>nd</sup> October, 2019 to the students of SKNCOA, Jobner. He emphasized on the importance of water and its efficient utilization, particularly in the context of Rajasthan.
- A Blood Cancer and Thalassemia awareness camp was organized in the University in association with Datri Blood Cell Institute on 25.02.2020. On this occasion Dr. Urmila Dadarwal delivered a lecture on “Stem Cell Donation” in the presence of the students, faculty and public representatives.
- Dr. D.S. Poonia, MBBS (SMS Medical College, Jaipur), MD (Psychiatry, AIIMS, New Delhi) delivered a lecture on “Healthcare and Psychological Tips” before faculty and students on 05.03.2020.
- Dr. B.S. Tomar, Principal Scientist, Division of Vegetable Science, IARI, New Delhi delivered a lecture on “Advances in resistant breeding in vegetable crops” on 06.03.2020.
- Dr. L. S. Dhaliwal renowned homeopath from Brampton, Canada delivered a lecture on Agrohhomeopath on 25.02.2020. He discussed the importance of agriculture in curing the patients through homeopathy.
- Dr. SaiDas, Foremer Director, Indian Institute of Maize Research, New Delhi visited the University on National Science Day ( Feb,28,2020). and delivered a lecture on Use of Maize in Industry.



### Facilities updated during the year

- Agrometeorological observatory of the college was upgraded by procuring various meteorological instruments viz, Ordinary Raingauge, Stevenson Screen, Maximum Thermometer, Digital Infrared Thermometer, Cup Counter Anemometer, Wind vane, Soil thermometers of 5, 10, 20 and 30 cm depths, Hygrograph, Thermograph, Aneroid Barometer, Dew Gauge, Whirling Psychrometer etc.
- A Herbal Park and a Bio-diversity park have been developed in the University.
- New orchards of Ber, Citrus, Olive, Pomegranate, Dragon Fruit and Fig etc. have been developed at SKNCoA, Jobner: ARS, Fatehpur: RARI Durgapura & ARSS, Diggi, Malpura.

### New Initiative

**New Colleges:** Two more undergraduate colleges i.e. College of Agriculture, Baseri and College of Agriculture, Kotputli have been started in the reporting year 2019-20 after budget announcement of Govt of Rajasthan. The student intake capacity of each college is 60.

**NAHEP Project:** A World Bank - ICAR Funded project entitled National Agricultural Higher Education Project (NAHEP) on “Strengthening Academic Ambience for Quality and Skill Oriented Undergraduate Education” has been received in the university. The project will help to strengthen the undergraduate academic activities and infrastructure development in ICAR accredited colleges of the University. The total support under this project is Rs 23.89 Cr.



**Career Development Centre:** 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 personality development, exposure, interaction with renowned personality and better job placements.

**Dual Degree Programme:** In 2019-20, MoU (Memorandum of Understanding) have been signed with other universities and ICAR institutes viz. ICRISAT, Hyderabad; Directorate of Rapeseed & Mustard, Bharatpur; Rajasthan Kaushal University, Jaipur; CIAH, Bikaner; National Bureau of Soil Conservation and Land Use Planning, Nagpur; Agriculture University, Kota and Amity University, Jaipur. Students are using their lab and field facilities for experiments and publishing research outcomes jointly in national and international journals.

**Online classes:** Owing to the COVID -2019 Pandemic from March 2020 online classes were held using video conference tools like Google meet, webex etc. Whatapp groups of students have been created for sharing study material, online lecture series through youtube and organization of class wise information on google classroom were held for undergraduates and postgraduates students. Comprehensive and Viva voce examinations of the PG students were conducted online so that the students can complete their degree well in time.

**Animal Assets:** A unit of 06 Sirohi goats and 01 buck has been added in the Department of LPM, SKNCOA, Jobner under ATMQIC project during 2019-20. The unit has been established as demonstration unit to get exposure by farmers and the students.



### Solar Plant

A solar plant of 45 KW capacities has been installed on the roof of Department of Extension Education, SKN Collge of Agriculture, Jobner. Another solar plant of 142 ,55 and122 KW is installed at the roof of Department of Entomology, University building and Rajasthan Agriculture Research Institute, Durgapura, Jaipur respectively under RESCO scheme of Govt of Rajasthan. It is estimated that the installation of this system will save the electricity cost of Rs.1963000/- in different units of the University.



### Rain water Harvesting System

Two new rain water harvesting systems have been completed in the University campus during 2019-20 to collect the rain water. The capacity of these structure are of 2.50 and 1.30 crore litre water which is being used to irrigate the crop during the period of water scarcity.



### Green Campus

An initiative has been taken to make the campus and the different units of the University “Green”. For this a large scale plantation programme has been initiated. About 15,000 plants have been planted in different units of the university to make them green & clean. Each staff member and student has given the responsibility to look after these plants. All the campuses of the university have earmarked as tobacco free zones.

### Cow Urine Collection Centre

A cow urine collection centre has been established in the University to promote the organic farming. The cow urine available from Dairy Farm of the SKN College of Agriculture, Jobner is being utilized for research on university farm. This centre was inaugurated on Nov, 11,2019 by Sh. Kalraj Mishra ji, Governer of Rajasthan.







### Seed Hub

The SKN college of Agriculture, Jobner received a seed hub under the ICAR scheme 7-MGA-27 seed hub. A seed processing unit has been created during reporting year under this project.



### Recognitions to staff

Dr. Pratibha Sharma ICAR Emeritus Scientist, SKN Agriculture University, Jobner received prestigious Dr. Y. L. Nene outstanding Plant Pathology Teacher Award-2019 by Indian Society of Mycology and Plant Pathology, Udaipur, India for her contribution in the area of plant pathology. She has also been elected as President, Indian Phytopathological Society (IPS), New Delhi for the year 2020-2022.



Dr. N. K. Gupta Professor (Plant Physiology) & Controller of Examinations, SKN Agriculture University Jobner conferred with prestigious J J Chinoy Gold Medal award of Indian Society for Plant Physiology, New Delhi for the year 2019. The award was presented by Sh. K. Vinod Kumar, Agriculture Minister Govt. of Kerla in National Seminar of Plant Physiology held at Kerla Agriculture University, Thrissure on Dec. 19-21, 2019.





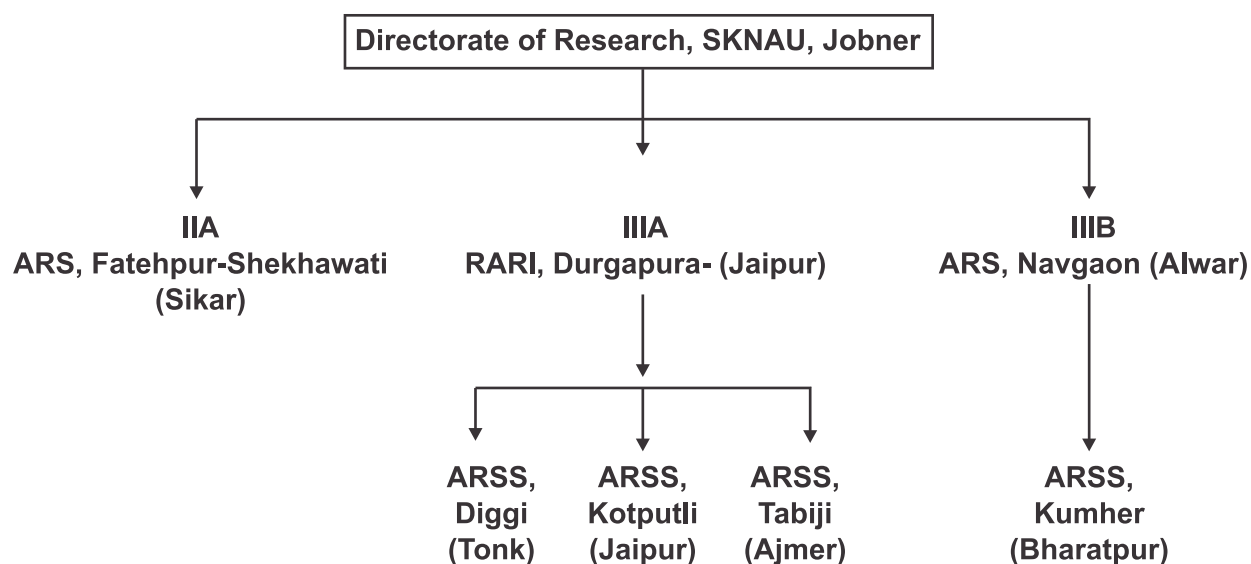
# RESEARCH ACTIVITIES

## Introduction

Directorate of Research is responsible to conduct research in the University. It was established in Nov 2013. There are seven research stations encompassing three agro-climatic zones under the administrative control of Directorate of Research, SKNAU, Jobner. These include Rajasthan Agriculture Research Institute (RARI) at Durgapura, Jaipur, two Agricultural Research Stations located at Navgaon (Alwar) and Fatehpur-Shekhawati (Sikar) and four Agriculture Research Sub-Stations at Tabiji (Ajmer), Kumher (Bharatpur), Gonera -Kotputli (Jaipur) and Diggi (Tonk).

The major crops of the state viz, Wheat, Barley, Pearl Millet, Chickpea, Mung bean, Moth bean, Cowpea, Groundnut, Cluster bean, Mustard, Taramira, Seed Spices and most vegetable crops are grown in the regions under jurisdiction of In the University. Thus, the three agro climatic zones under the jurisdiction of the University have potential to address the needs of the state with respect to food crops, vegetables and seed spices.

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. Our priority is to develop climate resilient varieties of various crops so as to cope up with the climate change. The long term research goals and objectives of the University are to develop cost effective technology, high yielding varieties along with addressing the conservation of natural resources of soil, water and vegetation by researches conducted at different locations under different agro-climatic conditions. 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. Units of Directorate of Research (DOR) which fall under three agro-climatic zones covering eight districts are shown in the following flowchart :





Lead and verification functions of the three research stations for their respective agro-climatic zone are as follow:

**RARI, Jaipur (Zone IIIA)**

Rajasthan Agriculture Research Institute (RARI) at Jaipur is a major research station of the University, equipped with sophisticated instruments and other research facilities.

- 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. Different kind of seeds are also produced on university farms.
- ii. **Verification functions** : Besides the above enumerated lead functions, the institute is 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.

**ARS, Navgaon (Alwar) Zone IIIB**

- i. **Lead functions** : Development of varieties and technologies for Rapeseed-mustard (irrigated and rainfed), reclamation and management of problematic soils, crop cultivation with mineralized water.
- ii. **Verification functions** : Pearl millet, pigeonpea, barley, wheat, clusterbean, chickpea, field pea, in-situ moisture conservation, testing and modification of farm implements.

**ARS, Fatehpur- Shekhawati (Sikar) Zone IIA**

- i. **Lead functions** : Development and management of Agro-forestry and other farming systems and *in-situ* moisture conservation.
- ii. **Verification functions** : Chickpea, mustard, pearl millet, fenugreek, fennel, mungbean, cowpea, sesame, sprinkler irrigation, forage crops, management of salt affected soils and water conservation.

**Farm/ Instructional area**

The university has sufficient farm area for research as well as for seed production. During the reporting period most of the research farms are in the process of developing new buildings, constructions of boundary wall and increased mechanization of farm. Details of research farms are given in the following table.

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

**Ongoing Research projects**

- AICRP/ AINRP Projects: These projects are long term regular projects located at different locations under the jurisdiction of the University and the projects are funded by Indian Council of Agricultural Research (ICAR), New Delhi.



S.N.	Name of the project	Year	Location
1	AICRP on Vegetables Research	1970	RARI, Durgapura, Jaipur
2	AICRP on Wheat and Barley	1971	RARI, Durgapura, Jaipur
3	AICRP on Pearl Millet	1976	RARI, Durgapura, Jaipur
4	AICRP on Seed Spices	1979	SKNCOA, Jobner
5	AICRP on Groundnut	1980	RARI, Durgapura, Jaipur
6	AICRP on Seed Technology Research	1981	RARI, Durgapura, Jaipur
7	AINRP on Pesticide Residue	1984	RARI, Durgapura, Jaipur
9	AICRP on Agro-forestry	1984	ARS, Fatehpur
10	AICRP on Arid Zone Fruits	1984	SKNCOA, Jobner
11	AINRP on Soil Arthropod Pests	1985	RARI, Durgapura, Jaipur
12	AICRP on Arid Legumes	1986	RARI, Durgapura, Jaipur
13	AICRP on Taramira	1988	SKNCOA, Jobner
14	AICRP on Integrated Farming System	1990	RARI, Durgapura, Jaipur
15	Gramin Krishi Mausam Seva	1996	RARI, Durgapura, Jaipur
16	AICRP on MULLaRP	2001	RARI, Durgapura, Jaipur
17	AICRP on Chickpea	2001	RARI, Durgapura, Jaipur
18	AINRP on Onion and Garlic	2008	RARI, Durgapura, Jaipur
19	AICRP on Nematode	2015	RARI, Durgapura, Jaipur

### RKVY Projects

Following short term ad-hoc projects (3-4 years), funded by State Govt. under RKVY scheme are also operational at various research and teaching campuses of the university.

S. N.	Name of RKVY Project	Year of Sanction	Total project cost (Rs. in lac)
1	Establishment/Strengthening of seed processing and Storage Unit in Different Research Stations of SKNAU, Jobner	2014-15	272.25
2	Development of infrastructural facilities and mechanization/modernization of farms at SKN College of Agriculture, SKNAU, Jobner	2014-15	160.00
3	Establishment of ICT enable Agriculture Technology Knowledge Centre (ATKC)	2014-15	464.00
4	Back yard poultry production for raising farm income of small, marginal and landless labours under semi arid conditions of Rajasthan	2014-15	126.25
5	To establish demonstration unit of Sirohi goat for raising farm income of small, marginal and landless labours under semi arid condition of Rajasthan	2014-15	142.41



6	Agriculture Technology and Management Quality Improvement Centre (ATMQIC)	2014-15	407.24
7	Establishment of Tissue culture set up for capacity building development of regeneration protocol and micro propagation of arid zone crops	2014-15	137.85
8	Evaluative of indigenous seed treating material for managing diseases of seed spices	2014-15	63.74
9	Validation and Post Harvest Technology for Dragon Fruit and Fig under semi arid conditions of Rajasthan	2016-17	90.15
10	Management of Specific Weeds in Resilience with Climate Change in Major Crops of Semi Arid Ecosystem	2016-17	65.34
11	Micro irrigation management for conserving vulnerable water resource with higher crop water productivity	2016-17	78.68
12	Organic farming for sustainable crop production and better health	2016-17	260.89
13	Augmentation of entrepreneurship for rural people through processing	2016-17	56.01
14	Conservation, improvement & production performance of Indigenous Milch Breeds of cows under semi-arid conditions of Rajasthan	2016-17	414.10
15	Mother Plant Nurseries for High Pedigree Planting Material for Fruit Crops	2016-17	72.80
16	Eco-friendly management of pulse beetle, <i>Callosobruchus chinensis</i> on different pulse in Rajasthan	2016-17	64.74
17	To establish demonstration unit of Sirohi goat for raising income of small, marginal and landless labour under different KVKs of SKNAU, Jobner	2016-17	143.43
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, Jobner	2016-17	70.70
19	Creation of training facilities for capacity building of scientists, students and rural youth	2016-17	154.50
20	Natural Resources and Waste Management by Establishing Vermi Compost Unit at Farmer Fields and RARI Durgapura, Jaipur	2016-17	66.65
21	Genetic Improvement and development of climate resilient Water melon and Musk melon for Rajasthan	2016-17	35.92
22	Modernization/ Mechanization of Agriculture Research Sub-Station, Diggi (Tonk) through creation of Infrastructural facilities.	2016-17	70.70
23	Farm development of Agriculture Research Sub-Station, Gonera (Kotputli)	2016-17	121.72
24	Establishment of Water Harvesting System to Maximize Use of Runoff Water for Strengthening of Research and Seed Production Programme at SKNCOA, Jobner	2016-17	86.00



25	Establishment of Ornamental Fish Breeding and Basic Training Centre	2016-17	89.75
26	Development of infrastructure facilities for breeder seed production at different ARS & ARSS farms of the SKNAU, Jobner	2016-17	359.10
27	Studies on Insect Pests and Natural Enemies Diversity in Major Semi-Arid Agro ecosystems of Rajasthan	2017-18	50.7626
28	Estimation of area and production of existing cropping systems and optimization of water use through Remote Sensing and GIS.	2017-18	190.30
29	Establishment of Herbal Park and Post Harvest Processing in Medicinal and Aromatic Plants	2018-19	20.26

### Seed Hub projects

Following seed hub project are operative in the University at different locations.

1. “Creation of seed-hub for increasing indigenous production of pulses in India” with total outlay of Rs. 150 lakh in 2016 – at farmers field with target of 550q (Chickpea – 150q, Mungbean – 150q, Pigeon pea – 250q) at RARI Durgapura.
2. “Creation of Seed hub for Enhancing Quality Seeds Availability of Major Oilseeds Crops” funded under NFSM-Oilseeds was sanctioned for two years with total outlay of Rs. 150 lakh in 2018-19. KVK Navgaon.
3. “Production of Additional Breeder Seed of Millet crops” under the NFSM- Nutricereals was sanctioned with total outlay of Rs. 70.00 lakh at RARI Durgapura.

### Other ongoing ad-hoc research projects

1. Genetically enhanced micro-nutrient – A Harvest Plus Programme, funded by ICRISAT – is operative at RARI, Durgapura since 2012 for improved human nutrition in the Western Africa region and India through nutrient enriched pearl millet grains.
2. Consortia for Research Platform (CRP) – ICAR sponsored “Biofortification in selected crops for nutritional security” is operational at RARI, Durgapura since 2015-16.
3. FASAL: IMD, Pune funded project on Forecasting agriculture output using space, agrometeorological and land based observations (FASAL) is operational since 2014-15 at RARI, Durgapura and ARS, Fatehpur.

### New Projects

**DUS Project on barley:** Received in RARI, Durgapura to test barley varieties as per PPVFR act. About 99 barley varieties have been tested in 2019-20.

**SCSP projects:** These projects have been received under AICRP on White grub and AICRP on Arid Legume at RARI, Durgapura during 2019-20.

**DAESI :** A one year Diploma in Agricultural Extension Services (DAESI) has started at ARS, Navgaon from Aug 28, 2019 for Input Dealers. It is fully sponsored by NAARM/Govt of Rajasthan. There are total 40 participants who belong to Alwar and nearby areas.





### Revenue generation

The University also undertakes testing of the chemical/ varieties/ other new molecules of private companies for the welfare of farmers. It provides opportunity to the scientist for using his skill/ specialization along with a source of revenue generation in the University. During the reporting period 24 projects were conducted by various scientists at different stations which generated a revenue of Rs. 54 lakh for the University.

### Meetings

**Breeder seed production meeting of Rabi 2019-20:** Breeder seed meeting was held for allotment of DAC indent to various units of the University including KVKs, ARSs, ARSSs and different stations/farms. The Incharges of these units and plant breeders & ADR (Seed) were entrusted with the responsibility to monitor the Breeder Seed Production programme along with the team from State Government. During the reporting period, the meeting was held on October 17, 2019 in the STR, RARI, Durgapura, Jaipur where 30 scientists and officers participated.

### Pre – ZREAC Meetings

The purpose of these meeting is to review the progress of research work conducted by scientists in Kharif/ rabi seasons at different stations. The meetings were held zone wise at the respective Agricultural Research Station. The scientists working in research presented their results and worked out the research programmes for next season as per the local needs. Pre – ZREAC Meetings for Kharif 2019 & Rabi 2019-20 were held as per the schedule given below.

ZONE	Name of the Research Station	Kharif 2019	Rabi 2019-20
II A	ARS, Fatehpur – Shekhawati (Sikar)	22.05.2020	02.09.2019
III A	RARI- Durgapura (Jaipur)	26-27 Feb,2020	1-2 Aug, 2019
III B	ARS, Navgaon (Alwar)	03.03.2020	28 Aug, 2019

### ZREAC Meetings

ZREAC meetings of Kharif 2019 & Rabi 2019-20 were held as mentioned below. These meeting were also held zone wise at respective research stations. which were attended by state govt. officials from department of agriculture / animal husbandry / horticulture with Zonal Director Research as its chairman. Main purpose of these meetings is to finalize package of practices (POP). In these meetings, In-charges of research projects presented the results of experiments conducted.

ZONE	Name of the Research Station	Rabi 2019-20	Kharif 2019
II A	ARS, Fatehpur – Shekhawati (Sikar)	06.09.2019	10.06.2020 Online mode
III A	RARI- Durgapura (Jaipur)	16-17 Sept,2019	08.06.2020 Online mode
III B	ARS, Navgaon (Alwar)	06.09.2019	11.06.2020 Online mode

**Meeting regarding RKVY project proposals :** A meeting regarding RKVY project proposals was held in November 2019 at University at head quarter. 47 projects were presented by different scientists and discussed in the house. Subsequently few more projects were received. All the projects were reviewed by Hon'ble Vice-Chancellor and 29 projects were finalized for submission. Out of these, ten projects were approved in SLPSC meeting held at Pant Krishi Bhawan, Jaipur. Total cost of these project is 1084.69 lakhs out of which 695.53 lakh are for the year 2020-21 but due to COVID-19 Pandemic financial sanction is still awaited.



## ACHIEVEMENTS

### Varieties released

#### Pearl Millet

In the year 2019-20, two bio-fortified varieties (RHB 233 and RHB 234) of pearl millet were notified at national level and released for seed chain. These varieties are rich in Zn and Fe content over other commercial hybrids. The important characters of these varieties are given hereunder.

#### RHB 233 : Newly released Bio-fortified variety of Pearl millet

<b>Year of release</b>	2019
<b>Notification No.</b>	S.O.3220(E) 06-09-2019
<b>Developed by</b>	RARI, Durgapura

#### Morphological features & yield

Plant height (cm)	55
Days to maturity (days)	80
Grain Yield (Kg/ha)	3157
Fodder Yield (q)	73.7

**Special features :** High iron (83 ppm) and Zinc (50ppm) higher degree of resistance to downy mildew and blast diseases



#### RHB-234: Newly released Bio-fortified variety of Pearl millet

<b>Year of release</b>	2019
<b>Notification</b>	S.O.3220(E)
<b>No.</b>	06-09-2019
<b>Developed by</b>	RARI, Durgapura

#### Morphological features & yield

Days to maturity (days)	81
1000 Seed weight (g)	9.3
Average yield (Kg/h)	3169
Fodder yield (q/h)	79

**Special features :** High iron (84 ppm) and Zinc (41ppm) higher degree of resistance to downy mildew and other diseases.



**Fennel :** A fennel variety RF-290 has been identified for National release by the 30<sup>th</sup> National Group Meeting (Workshop) of AICRP on Spices held at Coimbatore (Tamil Nadu) from 14-16 Nov. 2019. The specific characters of the variety are mentioned hereunder.





**Salient features :**

- High yield potential
- Erect and tall plants
- Medium maturity type
- More branches and umbels per plant
- More seeds per umbel
- Long & Bold Seeds
- It matures in 150-160 days and produces an average yield of 20.65 q/ha.

**RECOGNITIONS**

- All India Coordinated Research Project on Pearl Millet was declared as best centre in 2019 by ICAR for the significant contribution in the research of pearl millet. The award was given in the Annual Workshop of AICRP on Pearl Millet, May 2020 held online due to COVID-19 Pandemic.
- Pesticide and residue lab established at RARI, Durgapura, has been accredited upto Feb 2021 by NABL.
- Director General, ICAR Awarded “Certificates & Shields” to Dr. S. S. Rajput jointly with Dr. A. S. Shekhawat (former Barley Breeder) for the development of Barley varieties RD 2899 and RD 2907 during 58<sup>th</sup> All India Wheat & Barley Research Workers Meet held at ICAR-IARI, Regional Station, Indore during 24-26 August, 2019.



**Technologies developed**

**Rajasthan Agriculture Research Institute (Zone III A)**

- To minimize lodging in wheat crop, two spray of Tebuconazole (430 SC) 0.1 % or Chloromequat Chloride (50% SL) 0.2 % in 400 L water should be done at 40-45 and 75-80 days after sowing of crop.
- For effective control of broad leaved weeds in wheat crop, foliar spray of Halauxifen Methyl+Florasulam 40.85% WG (Readymix) @ 12.76 g a.i. in 500 L water should be done at 30-35 days after sowing of crop.
- For Effective control of broad leaved weeds in barley, foliar spray of Halauxifen Methyl+Florasulam 40.85% WG (Ready mix) @ 12.76 g a.i. in 500 L water should be done at 30-35 days after sowing of crop in NWPZ.
- Application of Pusa hydrogel (2.5 kg ha<sup>-1</sup>) in barley resulted in yield gain of 3 to 5% along with increased water use efficiency in NWPZ (Included in National POP).
- Seed treatment with NPK liquid formulation (250 ml ha<sup>-1</sup>)+Zn solubilizing bacteria (125 ml ha<sup>-1</sup>)/ Bio-grow (250 ml ha<sup>-1</sup>)+75% RDF resulted in 25% saving of chemical fertilizers and produced statistically similar pod yield of groundnut with 100% RDF (Included in National POP).



- The already isolated and characterized pheromone methoxy benzene of predominant species of groundnut ecosystem *Holotrichia consengunia* 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 slow release pheromone lure is prepared by Nano gel technology with the help of Dr. Deepa Bhagat, Principle Scientist, NBAIR, Bangalore for beetle management and the technology has been tested in white grub endemic areas of Rajasthan and perfected, which is ready to release now. This pheromonal lure is effective in aggregation of beetles up to one month and now daily loading of new septa wouldn't be required upto one month.
- For the management of termites in chickpea Fipronil 5 SC at 10 ml/kg seed use as seed dresser was found significantly superior and included in POP of Rajasthan State.
- For the management of termites in wheat, Fipronil 5 SC at 6 ml/kg seed use as seed dresser was found significantly superior and included in POP of Rajasthan State.
- Recommendation of use of imidacloprid 600 FS as seed treatment at 6.5 ml/kg seed of groundnut before sowing for the management of whitegrub, *Holotrichia consanguinea* has been included in Package of Practices.
- Foliar spray of Hexaconazole 5% SC (1.0 ml/liter of water) at the time of initial appearance of disease and second spray should be made after 15 days interval are economical and effective against powdery mildew of coriander.
- Soil application of Vermicompost @ 2t/ha and seed treatment with *Trichoderma harzanium* @ 6g/kg along with NSKE 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.
- For 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 10 percent umbels aphid infestation 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.
- 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 of India.
- Safe waiting period (SWP) after application of pesticide in vegetables has been recommended as per following details.

Crop	Pesticide	Dose g. a.i./ ha		SWP (days)
Onion	Fluopicolide	Lower dose	78.1+781.3 (1250 ml formulation)	10
		Higher dose	156.25+1562.5 g a.i./ha (2500 ml formulation/ha)	15
Bengal Gram	Flubendiamide leaves	Lower dose	120 g a.i. /ha	15
		Higher dose	240 g a.i.	20
	Flubendiamide immature pod, mature seed with pod, seed, straw	Lower dose	120 g a.i. /ha	7
		Higher dose	240 g a.i.	10
	Thiacloprid leaves	Lower dose	120 g a.i. /ha	15
		Higher dose	240 g a.i.	20



	Thiacloprid immature pod, mature seed with pod, seed, straw	Lower dose	120 g a.i. /ha	7
		Higher dose	240 g a.i.	10
Green Pea	Imidacloprid 600FS	Lower dose	1.8 g a.i. /kg seed	0
		Higher dose	3.6 g a.i. /kg seed	0
Chilli	Imidacloprid 600FS	Lower dose	9 g a.i./kg seed	0
		Higher dose	18 g a.i./kg seed	0
Chilli	Trifloxystrobin	Lower dose	2000 g formulation/ha	10
		Higher dose	4000 g formulation/ha	15
	Propineb	Lower dose	2000 g formulation/ha	10
		Higher dose	4000 g formulation/ha	15
Tomato	Azoxystrobin	Lower dose	1500 g formulation/ha	7
	Mancozeb	Higher dose	3000 g formulation/ha	10
Pea	Lambda- Cyhalothrin	15 g. a.i./ha	-	15
Pea	Spitromesfen	120 g. a.i./ha	-	20

### **Agriculture Research Station, Navgaon Zone III B**

- Mustard strain DRMR-1165-40 was found superior under rainfed condition.
- Moongbean varieties IPM 410-3, IPM 205-7 and PDM-139 exhibited superior performance in Zone IIIb.
- Clusterbean varieties HG-884 and HG-870 exhibited superior performance in Zone IIIb.

### **Agriculture Research Station, Fatehpur Shekhawati (Zone II A)**

- Disc ploughing & application of Paraquat @ 1.25 Kg a.i./ ha during summer month (May) continuously for three years effectively control Jawasa weed in fellow land.
- Maximum mean grain yield in barley (41.32 q./ha) was obtained with treatment of foliar spray of 500 ppm thiourea at tillering stage + ear emergence stage closely followed by treatment of foliar spray of 100 ppm Ascorbic acid at tillering stage + ear emergence stage.
- Maximum mean grain yield in gram (11.56 q./ha) was obtained with treatment of 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.
- 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 treatment.



**New Initiatives:-**

- Establishment of micro and drip irrigation system in 4.5 ha to Increase the productivity particularly in sandy soil and adding of clay soil in 5.0 ha to improve soil structure and soil fertility to sustain the productivity under breeder seed production at ARSS, Gonera, Kotputli.
- Farm boundary of 2.4 km has been constructed at ARSS, Kumher, Bharatpur.
- Developed good hygienic Entomopathogenic Laboratory at Rajasthan Agriculture Research Institute, Durgapura, Jaipur
- Renovated Scarabaeidae Museum at Rajasthan Agriculture Research Institute, Durgapura, Jaipur
- Development of Organic Nutritional Garden since 2017 onwards at Rajasthan Agriculture Research Institute, Durgapura, Jaipur
- Started Azolla Production Unit for feed supplement to cattle and poultry at Rajasthan Agriculture Research Institute, Durgapura, Jaipur
- The seed hub and seed processing unit has been installed at Rajasthan Agriculture Research Institute under the ICAR scheme of AICRP on Pearl Millet.





# EXTENSION EDUCATION ACTIVITIES

## Introduction

The Directorate of Extension Education was set up on 13th November 2013 as the nodal agency of Sri Karan Narendra Agriculture University, Jobner along with the Extension wing. The main function of this directorate is to promote agricultural development in the state through quick transfer of technology by providing training, advisory & farm information to the farmers & professional extension personnel of line department.

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

## Objectives

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

## Operational area

The Directorate of Extension Education operates in KVKs of eight districts namely Ajmer, Alwar, Jaipur, Dausa, Bharatpur, Dholpur, Tonk & Sikar.

## Details of Farm/Instructional area/ Inventory

Farm/units	Total area (ha)	Under cultivation	Under research
KVK, Ajmer	10.70	7.70	-
KVK, Fatehpur	15.24	10.75	1.75
KVK, Dausa	17.3	10	-
KVK, Bharatpur	21.35	15	-
KVK, Dholpur	21.04	12.0	-
KVK, Alwar	20.00	16.50	-
KVK, Kotputli	41.05	10.0	-



### Research Projects

Name of projects	Funding source	Duration/period	Year of start
Agriculture Technology Management & quality improvement Centre (ATMQIC)	RKVY scheme	04 Yrs	2014-15
To establish demonstration unit of Sirohi goat for raising income of small, marginal and landless labour under different KVKs	RKVY scheme (143.42 lakhs)	03 Years	2016-17
To establish demonstration unit of backyard poultry for raising farm income of small, marginal and landless labour under different KVKs	RKVY scheme (70.70 lakhs)	03 years	2016-17

### Linkages and Networking

S.No.	Particulars	Collaborating Agency	Details
1.	MoU signed	NIF, Ahmadabad	Identification and motivation of grass-root level Innovative farmers at KVK Fatehpur Sikar
2.	Collaboration and Networking with :	IARI, New Delhi	Agriculture research project & seed material

### Revenue generation

An amount of 64 lakhs has been generated through different sources during the reporting year.

Category	Revenue (Rs. Lakhs)
Through research projects (only institutional charges)	0.55 (KVK, Bharatpur)
Through sale of farm produce, seeds, biological kits, etc.	33,44,791.36
Through training (only institutional charges)	380720.00
Any other source from the sale of Vegetables, Vermi compost, Azola, rent of training hall etc.	26,82,518 (KVKs and DEE)
Total	64,63,029.36

### Projects and Asset Development

S.No.	Name of the project	Asset developed
1.	To establish demonstration unit of Sirohi goat for raising income of small, marginal and landless labours under different KVKs of SKNAU, Jobner (RKVY-17)	A unit of 25 Sirohi goats and 02 bucks was established at each KVKs of SKNAU. The unit has been used as demonstration unit at each KVKs. Such units have been established at five different KVKs of SKNAU under RKVY project during 2019-2020.
2.	To establish demonstration unit of backyard poultry for raising income of small, marginal and landless labours under different KVKs of SKNAU, Jobner (RKVY-18)	A unit of 100 birds was established at each KVKs of SKNAU. The unit has been used as demonstration unit for small, marginal and landless labours at five different KVKs. Such units have been established at five different KVKs of SKNAU under RKVY project during 2019-2020.



3	Agriculture Technology and Management Quality Improvement Centre (RKVY-06)	A unit of 06 Sirohi goats and 01 buck has been established at department of LPM, SKNCOA, Jobner under ATMQIC project during 2019-2020. The unit has been established as demonstration unit.
4	Kuroiler Poultry birds (KVK, Bharatpur)	74
5	Sirohi Doe (KVK, Dausa)	24
6	Sirohi buck (KVK, Dausa)	2
7	Kid (Male) (KVK, Dausa)	5
8	Kid (Female) (KVK, Dausa)	14
9	Goats (KVK, Ajmer)	22
10	Bucks (KVK, Ajmer)	02
11	Backyard poultry birds (KVK, Ajmer)	40
12	Rabbits (KVK, Ajmer)	50
13	Quails (KVK, Ajmer)	05
14	Poultry birds	50
15	Goatry	91

### Awards and Appreciation to staff

Name of the Award	Name of the Recipient	Purpose/Remarks
Certificate on the Occasion of 71 <sup>st</sup> Republic Day January 26, 2020	Sh. Manoj Kumar Sharma, Clerk Gr. II, DEE SKNAU	Outstanding Contribution in the Year 2019
Certified "A" grade Assessor Award	Dr. Basant Kumar Bhinchhar, Bharatpur	For assessing skill training under Agriculture Skill Council of India, New Delhi (ASCI)
Best NICRA KVK Award	KVK team, Bharatpur	For outstanding work in NICRA project
Certificate of Best Extension Officer Award-2019	Dr. Navab Singh, Senior Scientist & Head	Outstanding contribution in the field of Extension Education in international conference organized by SKNAU and NADC Srinagar from 07-09 Dec.2019
First position in Oral Lead paper presentation in International Conference"	Dr. Navab Singh, Senior Scientist & Head	Oral lead paper presentation in International Conference organized by SKNAU and NADCL Srinagar from 07-09 Dec.2019
Best Exhibition Award	KVK, Ajmer	Exhibition during Kisan Mela organized by NRCSS, Ajmer



### Awards and Appreciations to Farmers

- Sh. Sunda Ram Progressive farmer nominated for Padmashree was honored by the Honorable Vice Chancellor at Directorate of Extension Education on 27.01.2020. Sh. Verma awarded Padhamshree award from Govt. of India for his contribution of water conservation technology & research on yellow mustard.
- Progressive farmer of Baseri village Sh. Khema Ram Choudhary got IARI Innovative farmers award 2020 in IARI, New Delhi. He was welcomed by the Hon'ble Vice Chancellor in the monthly meeting of KVKs on 05.03.2020.
- Sh. Ganga Ram Sepat, progressive farmer of Kalakh village received award of Rs. 1.0 lac at state level in the field of organic farming in year 2019-20.
- Following progressive farmers and woman farmers from KVKs and DEE got Certificate of Appreciation by the Hon'ble Governor Rajasthan during visit of SKNAU, Jobner on 10.11.2019.



1. Smt. Santosh Pachar , KVK, Fatehpur (Sikar).
2. Smt. Rubi Pareek, KVK, Dausa
3. Sh. Ram Narayan Choudhary, Village Baseri, Jhotwara, Jaipur.
4. Sh. Surendra Awana, Village, Bhairana, Dudu, Jaipur.
5. Sh. Khema Ram Choudhary, Village Gudha Kumawatan, Jaipur.
6. Sh. Jagdish Pareek, KVK, Fatehpur (Sikar).
7. Sh. Hukum Singh Lodha, KVK, Bharatpur.

### Agriculture Technology Information Centre (ATIC)

The Agriculture Technology Information Centre has been developed at Directorate of Extension Education, SKN Agriculture University Jobner by RKVY funding. The basic objectives of the centre are :

1. To establish ICT enabled Agriculture Technology and Management Quality Improvement Center for the region of Rajasthan.
2. 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.
3. To provide mechanism for feedback from the end users to the institute for further perfection of technology and practices.
4. To train farmers with recent trends in precision, conservation, specialty and secondary agriculture.
5. To deliver location and need based agro-information/ technologies to the farmers.







### Services being offered by the ATIC

1. Video Conference Room (capacity 50 persons)
2. Farmers Hostel (capacity 30 persons)
3. Smart Class Room (capacity 50 persons)
4. Agricultural Education Museum
5. Kisan Call Centre
6. ICT hub station
7. Shed net for nursery
8. Solar system
9. Micro irrigation system (Drip & Sprinkler)
10. Water harvesting Structure
11. Agriculture Resource Centre
12. Agriculture Kiosk
13. Graphic table for data presentation
14. Fish pond

### SMART Village

Sri Karan Narendra Agriculture University, Jobner has adopted the Village Pachar under “**Developing Smart Village Model to achieve Objectives of Mission Antyodaya**” in compliance to Governor of Rajasthan. This University initiated a number of activities which are as follows:

1. A meeting of farmers, farm women, youths, school students (75) along with scientists of SKNAU, Jobner and officers of Department of Forest was organized on 30.7.2019 to discuss about importance and methods of plantation.
2. One day "Plantation Programme" was also organized on 30.7.2019 at gochar land Pachar in collaboration with Department of Forest and target was plantation of 1200 plants.
3. A farmers meeting with University scientists was organized on 27.09.2019 to discuss about Dairy farming, Orchard renovation, Crop production technology and scientists also visited orchard and Gochar forestry.
4. A meeting was organized on 02.10.2019 at Gram Panchayat Head Quarter Pachar to discuss about the progress of various activities under taken by University with other line departments and also discussed about future action plan. The list of farmers was also prepared where Rabi crop demonstrations are to be conducted.
5. Monthly meeting of coordination committee chaired by Prof. J.S. Sandhu, Hon'ble Vice Chancellor, SKNAU, Jobner was held on 11.10.2019 at ATMQIC, DEE, SKN Agriculture University, Jobner. Progress and action plan of Smart village Pachar was discussed in detail.
6. University organized a World Soil Health Day on 5<sup>th</sup> Dec., 2019 at Pachar. The programme was inaugurated by Director Extension Education and Chaired by Sarpanch, Gram Panchayat–Pachar and lectures were delivered by the University Soil Scientists and Extension Personnel on importance of Soil Health, Soil sampling process for testing, methods of soil improvement, Organic farming and its importance. In this programme 40 farmers and farm women were participated.



7. Directorate of Extension Education organized a Soil Health Card Day at SMART village Pachar- Kalwad on 19.02.2020.
8. Directorate of Extension conducted a field day on barley at village Dhani Boraj, on 29.02.2020.
9. Mask distribution & awareness programme of corona virus (COVID-19) was conducted at SMART village Pachar- Kalwar on 18.05.2020 under the chairmanship of Hon'ble Vice Chancellor, SKNAU, Jobner organized by Directorate of Extension Education, Jobner and distributed agriculture advisory to farmers in which 70 farmers and farm woman were participated. Smt. Kamla Devi, Sarpanch and the members of Panchayat Pachar was also present in the programme. Give the advisory to farmers about COVID-19 pandemic disease during crop harvesting and other agricultural operations through whatsapp groups and facebook.
10. Directorate of Extension Education organized a "Water conservation and Kharif production technology programme" on 16.06.2020 at Gram Panchayat, Pachar in which 25 farmer & farm woman participated.

### Staff strength in Directorate of Extension Education (Present Status)

Name of the post	Number
Director Extension Education	01
Dy. Director Extension & ATIC Manager	01
Technical Staff	02
Ministerial Staff	03
Supporting Staff	01

### Training/Meeting/conference attended by the staff

1. Dy. Director, Extension Education attended Scientific Advisory Committee (SAC) Meeting on 07.8.2019 at KVK, Kumher- Bharatpur and 08.08.2019 at KVK, Dholpur.
2. Director, Extension Education attended Scientific Advisory Committee (SAC) Meeting on 21.8.2019 at KVK, Tabiji-Ajmer.
3. Director Extension Education attended monthly review Meeting on 05.10.2019 at Krishi Vigyan Kendra, Dausa.
4. Director Extension Education attended review meeting on 04.10.2019 at RARI, Durgapura, Jaipur
5. Director, Extension Education attended Scientific Advisory Committee (SAC) Meeting on 21.8.2019 at KVK, Tabiji-Ajmer.
6. Director, Extension Education attended Scientific Advisory Committee (SAC) Meeting on 23.10.2019 at KVK, Kotputli.
7. Director Extension Education visited KVK Fatehpur for supervision & monitoring of KVK activities and also attend Inaugural function of DAESI programme at KVK, Fatehpur (Sikar) on 06.02.2020
8. Director Extension Education attended Scientific Advisory Committee (SAC) meeting on 18.02.2020, at KVK, Gunta-Bansur- Alwar and also visit KVK Navgaon- Alwar for supervision & monitoring of KVK activities.
9. Director Extension Education attended National Conference of KVKs during 28 Feb., to 01 March 2020 at NASC Complex, New Delhi.



10. Director Extension Education attended Scientific Advisory Committee (SAC) Meeting on 28.01.2020 at KVK, Dausa.
11. Director Extension Education attended two days State Level Workplan (2020) Workshop during 23-24<sup>th</sup> January 2020 at Agriculture University, Jodhpur.

### Case Story

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.

### Publications

Extension scientists working in Directorate and KVKs have published research articles and other periodicals in national and international journals, a summary of which has been given hereunder. The details of publication has been given in another section.

Category	Number of staff
Research articles in international journals	8
Research articles in national journals	12
Books	1
Book chapters	-
Peer-reviewed research reports	-
Manuals	11
Conference/seminar/symposium papers	2
Reports	134
Popular articles / Review papers / Extension bulletins	28
e-publications / open access articles	1
Databases	-
Others (specify):	75

### Visits of dignitaries

A number of dignitaries have visited KVKs and directorate during the year 2019-20, few of them have been mentioned hereunder.

Name	Designation	Purpose of visit
Dr. S.L. Mehta	Former DDG (Education), ICAR, New Delhi.	As a Chairman of QRT inspection team on 08.01.2020.
Dr. S.Prabhu Kumar	Former Director, ICAR, ATARI, Bangaluru.	As a member of QRT inspection team during 08.01.2020 to 10.01.2020
Miss Shweta Chouhan	I.A.S., New Delhi.	Jal Shakti Abhiyan Mela
Dr. S.K. Singh,	Director ATARI, Jodhpur.	KVK visit
Sh. Abhisheek Chaurasiya	IAS, New Delhi.	JSA



Sh. Prakash Mirani, & Ms Roli M Verma,	Joint Secretary, Ministry of Commerce & Industry And Gol, New Delhi	JSA
Smt Shoba Rani	MLA, Dholpur	Plantation & Sawachta he seva
Sh. Girraj Singh Malinga,	MLA, MLA (Baseri)	JSA
Sh.Bhagirath Choudhary	MP, Ajmer	Dignitaries visited on 17.9.2019 during plantation programme at KVK Ajmer
Smt. Safiya Khan,	MLA, Ramgarh	Attended the Rabi Kisan Sammelan and Live Inauguration of PM Kisan Samman Nidhi on 24.02.2019
Smt. Safiya Khan,	MLA, Ramgarh	Attended the Jal Shakti Kisan Mela at KVK on 03.09.2019

### Facilities updated during the year

S.No.	Facilities		No. of beneficiaries
1	Poultry Unit established	Established Demo unit of backyard poultry and Egg Centre at KVK, Bharatpur	KVK, Bharatpur
2	KVK, Dausa	Sirohi goat unit at KVK, Dausa	KVK, Dausa
3	Office building	Colour & maintenance	KVK, Dholpur
4	Farm & equipments maintence	Purchased tractors, thresher, drawn seed cum fertilizer drill , water tankar, Disc Plough reversible, power tractor operator sprayer, power weeder	KVK, Dholpur
5	Plant Nursery	1(30'X45')	KVK, Kotputli Farm
6	Demo unit –Mini sprinkler	1 ha	KVK, Kotputli Farm
7	Demo Unit –Drip irrigation System	0.5ha	KVK, Kotputli Farm
8	Establishment of Acid Lime Orchard (Mother Block) with drip irrigation	1.0 ha	KVK, Kotputli Farm
9	Seed processing unit& seed hub building	NFSM supported seed hub project for pulses	KVK, Navgaon
10	Seed processing unit& seed hub building	NFSM supported seed hub project for pulses	KVK, Ajmer

### Important meetings held

Meeting Agenda	Date	Level of participation	No. of participants
Scientific Advisory Committee	Year 2019-20	Director, DEE, SKNAU, Jobner	202
KVK Monthly review meeting	05.10.2019	Director, DEE and Senior Scientist & Head of all KVKs of SKNAU, Jobner	14
Monitoring of KVK Dholpur	30.12.2019	Hon'ble VC, SKNAU, Jobner	10

### Recognition

Krishi Vigyan Kendra, Kumher, Bharatpur District of Rajasthan is adjudged as the best NICRA-KVK of the ATARI Zone II 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.

### Accomplishments and Achievements of DEE

1. One year Diploma course for Input Dealers titled “Diploma in Agricultural Extension Services for Input Dealers (DAESI)” is completed in DEE, SKNAU, Jobner. This course was sponsored by MANAGE Hyderabad in collaboration with SIAM, Durgapura, Jaipur.
2. QRT inspection team visited on 12.12.2019 at KVK, Tabiji, Ajmer, and meeting and presentation of KVKs scientists as well as Director Extension Education was held under chairmanship of Dr. S.L. Mehta and members of QRT from 08.01.2020 to 10.01.2020 at RARI, Durgapura, Jaipur and also conducted a visit at progressive farmers field.
3. Directorate of Extension Education organized valedictory function of DAESI programme on 16.01.2020 at SKNAU, Jobner.
4. Directorate of Extension Education organized a meeting on 27.01.2020 under the chairmanship of Hon'ble Vice Chancellor, SKNAU, Jobner for discussed the work plan and suggestion to promote horticultural production, organic farming and value addition etc.
5. Three days off campus training on “Workshop on Participatory Training Management Skills” was organized by Directorate of Extension Education, SKNAU, Jobner in collaboration with EEI, Anand, Gujarat during 13.11.2019 to 15.11.2019. Twenty eight SMSs & Assistant Professors participated.
6. Massive Plantation of different types of plants was carried out in Pachar (SMART village) on 30.07.2019





by the Directorate of Extension Education, SKNAU, Jobner and 1200 saplings were planted in Gochar land of Pachar.

7. Directorate of Extension Education organized a meeting of coordination committee of University's SMART Village Pachar on 11.10.2019 under the chairmanship of Hon'ble Vice Chancellor at Directorate of Extension Education, SKNAU, Jobner.
8. Training, Kishan goshti, World Soil Health Day celebration and PCRA training organized during the period of Jan. 2019 to Dec. 2019 at Pachar (SMART village) by the Directorate of Extension Education, SKNAU, Jobner.

### Accomplishments and Achievements of KVKs

- i. Training Programmes conducted: One of the mandates of Krishi Vigyan Kendras is to organize training programmes for practicing farmers, farm-women, rural youth and extension functionaries throughout the year. These trainings are conducted on the institution as well as in the villages, as per convenience of the target group and the nature of the training programme. The duration of programme may vary from one day to two months depending upon the complexity of the subject matter and need of the target group.

On campus/off campus training programmes conducted by the KVKs on Integrated nutrient management, Seed production, Integrated Crop Management, Resource Conservation Technologies, Cropping Systems, Crop Diversification, Production of low volume and high value crops, Nursery raising, Layout and Management of Orchards, Soil fertility management, Feed & fodder technology, Animal Nutrition Management, Value addition, Integrated Pest Management, Integrated Disease Management, Bio-control of pests and diseases, Entrepreneurial development of farmers/youths, Weed Management, Poultry Management, Rabbit Management, Animal Nutrition Management, Disease Management, Feed & fodder technology, Integrated Farming, Off-season vegetables, Protective cultivation, Training and Pruning, Layout and Management of Orchards, Soil and Water Testing, Household food security by kitchen gardening and nutrition gardening, Design and development of low/minimum cost diet, Designing and development for high nutrient efficiency diet, Minimization of nutrient loss in processing, Women and child care.

Details of training conducted by different KVKs have been summarized hereunder.

KVKs	On Campus Trainings								Off Campus Trainings							
	Farmer/ Farm Women		Rural Youth		Ext. Functionaries		Total		F/ FW		Rural Youth		Total		Grand Total	
Fatehpur	13	334	02	40	03	75	18	449	17	362	00	0	17	362	35	811
Ajmer	50	1468	03	60	01	39	54	1567	12	276	06	142	18	418	72	1985
Dausa	37	974	-	-	-	-	37	974	30	791	-	-	30	791	67	1765
Kotputli	20	516	8	205	-	-	28	721	20	505	6	158	26	663	54	1384
Alwar	25	624	3	60	6	120	34	804	33	716	0	0	33	716	67	25
Bharatpur	09	270	04	182			13	452	30	920			30	920	43	1372
Dholpur	19	590	5	134	0	0	24	724	28	733	0	0	28	733	52	1457
<b>Total</b>	<b>173</b>	<b>4756</b>	<b>25</b>	<b>681</b>	<b>10</b>	<b>234</b>	<b>208</b>	<b>5691</b>	<b>170</b>	<b>4303</b>	<b>12</b>	<b>300</b>	<b>182</b>	<b>4603</b>	<b>390</b>	<b>8799</b>



N= Number of trainings

F= Farmers

P= Number of participants

FW= Farm women

### Front Line Demonstrations conducted by the KVKS

The ICAR has sponsored a special programme of Front-line Demonstrations to demonstrate the genetic production potential of improved crop varieties and to disseminate latest proven technologies of oilseeds and pulses production among the farmers with the view to reduce the time lag between technology generated and its adoption. This will also enable field functionaries to elucidate the production constraints and limitations in the adoption of technology for onward transmission to scientists to reorient their research accordingly. In these demonstrations all the newly unfolded technologies are carried out under the direct supervision of scientists and technicians of KVKS by supplying the critical inputs. Following are the details of FLDs organized during academic year 2019-20.

Crops	Fatehpur		Ajmer		Dausa		Kotputli		Bharatpur		Dholpur		Alwar	
	Ha.	No.	Ha.	No.	Ha.	No.	Ha.	No.	Ha.	No.	Ha.	No.	Ha.	No.
<b>Pulses</b>														
Chick Pea	30	75	30	60	60	130	30	75	20	50	50	125	20	33
Lentil	-	-	-	-	-	-	-	-	20	50	-	-	-	-
Green gram	20	50	20	40	-	-	20	40	-	-	-	-	10	20
<b>Total</b>	<b>50</b>	<b>125</b>	<b>50</b>	<b>100</b>	<b>60</b>	<b>130</b>	<b>50</b>	<b>115</b>	<b>40</b>	<b>100</b>	<b>50</b>	<b>125</b>	<b>30</b>	<b>53</b>
<b>Oil seeds</b>														
Groundnut	30	75	-	-	37.2	103	16.5	33	-	-	-	-	-	-
Mustard	-	-	50	100			50	100	80	200	20	40	80	120
Mustard (NMOOP)	150	300	-	-	80	119	-	-	-	-	65.2	163	-	-
Sesame	-	-	10	20	-	-	66.5	133	-	-	48	120	30	60
<b>Total</b>	<b>180</b>	<b>375</b>	<b>60</b>	<b>120</b>	<b>117.2</b>	<b>222</b>	<b>16.5</b>	<b>33</b>	<b>80</b>	<b>200</b>	<b>133.2</b>	<b>323</b>	<b>110</b>	<b>180</b>
<b>Other than Oilseeds &amp; Pulses</b>														
Cluster bean	10	25	-	-	10	24	-	-	-	-	10	20	-	-
Pearl millet	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Wheat	8.2	22	24.8	62	16	40	20	60	8	20	30	85	5	20
Barley	8.2	22	-	-	10	24	10	30	5	11	0	0	-	-
Fenugreek	-	-	-	-	-	-	10	24	-	-	-	-	2.0	4
Piegeon pea	-	-	-	-	-	-	-	-	-	-	20	80	20	40
Fennel	-	-	-	-	-	-	-	-	4	10	0	0	-	-
Cumin	-	-	02	05	-	-	-	-	-	-	0	0	-	-
Barseem	-	-	-	-	-	-	-	-	1.5	25	2	35	-	-
<b>Total</b>	<b>26.4</b>	<b>67</b>	<b>26.8</b>	<b>67</b>	<b>26</b>	<b>64</b>	<b>40</b>	<b>114</b>	<b>18.5</b>	<b>66</b>	<b>62</b>	<b>220</b>	<b>27</b>	<b>64</b>



<b>Vegetables</b>														
Onion	1.0	10	02	10	-	-	-	-	-	-	-	-	4	16-
Cabbage	-	-	-	-	-	-	3.25	25	-	-	-	-	4	16
Brinjal	-	-	-	-	-	-	3.25	26	-	-	-	-	4	16
Tomato	-	-	-	-	-	-	-	-	04	25	-	-	-	-
Carrot	-	-	-	-	-	-	-	-	-	-	1	10	-	-
Chillies	-	-	-	-	-	-	-	-	0.5	10	-	-	-	-
Tomato	1.0	05	-	-	-	-	-	-	0.5	10	-	-	4	16
Ber	-	-	-	-	-	-	-	-	1	6	-	-	-	-
Lime	-	-	-	-	-	-	-	-	0.5	2	-	-	-	-
Marigold	-	-	-	-	-	-	1.0	25	-	-	-	-	-	-
<b>Total</b>	<b>2.0</b>	<b>15</b>	<b>02</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>7.5</b>	<b>76</b>	<b>6.5</b>	<b>43</b>	<b>1</b>	<b>10</b>	<b>16</b>	<b>64</b>
Lucerne	-	-	-	-	-	-	1.0	10	-	-	-	-	-	-
Fodder Bajra	-	-	-	-	-	-	2.0	20	-	-	-	-	-	-
Fodder Beet root	-	-	-	-	-	-	1.0	10	-	-	-	-	-	-
Other fruits	-	-	29.5	800	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>29.5</b>	<b>800</b>			<b>4.0</b>	<b>40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### On Farm Testing (OFT) Programmes taken up by KVKs

To identify suitable solutions of the location specific problems of the farmers in the adopted villages, on farm testing programmes were taken up by KVKs on crops like wheat, barley, gram, mustard, cumin, and vegetables like chilli, onion, cauliflower, tomato etc. OFTs were also taken on cattle (nutritional management, breed improvement) and child nutrition. Total 31 On Farm Testing's were taken up by KVKs during academic year 2019-20.

<b>KVKs</b>	<b>OFTs</b>
Ajmer	1. Effect of supplementary feeding of azolla as concentrate on the milk yield of cattle
	2. Area specific mineral mixture & deworming in goat
	3. Effect of different treatment on incidence of wilt disease & yield of Cumin
Alwar	1. Low yield of tomato
	2. Low Productivity of Onion
	3. Yield loss due to heavy infection of Downy mildew & White Rust
	4. Reduction of Long Calving period in Buffalo
	5. Low milk yield in Buffalo





Bharatpur	1. Weed control measures on fennel yield
	2. Low yield of chickpea due to gram pod borer
	3. Low yield of wheat due to high temperature at the time of maturity.
	4. Low yield of Ber due to fruit drop.
	5. To Assess the Effect of Probiotic on Milk Production of Buffalo.
	6. Effect of Azolla on Milk production of Goat.
Dausa	1. Weed management in groundnut with post emergence application of Imazethapyr 10 SL @50g ai/ha
Dholpur	1. Management of pod borer in chickpea.
	2. Management of Alternaria blight disease in potato
	3. Impact of Azola feed in Murra-Bufferalo's Milk yield
	4. The mortality of newly born calf reduced by proper coloustrum feeding with benmith tablet
Kotputli	1. Assessment dose of Imazethapyr for weed control in Clusterbean
	2. Assessment of recommended seed rate of wheat for higher yield and income
	3. Assessment of Plug Tray for raising healthy seedlings
	4. Assessment of plastic mulch in chilli
	5. Assessment of calf management in buffalo to manage calf mortality
	6. Assessment of methochelated minerals on milk production in Buffalo
Sikar	1. Micro-nutrient management in wheat
	2. Efficacy of micro nutrients in onion crop
	3. Evaluation of suitable onion variety for keeping quality
	4. Weed management in Green gram
	5. Effect of Straw and Black Polythene mulch in Chilli
	6. Feeding management in cow



## HUMAN RESOURCE DEVELOPMENT

Directorate of Human Resource Development (HRD) is located in the main building of the university. Major activities of the Directorate are enhancing experiential learning of agriculture students, promote excellence and capacity building of faculty in cutting edge areas, up-gradation of skill and emerging disciplines to bring systemic reform and institutional development in higher agricultural education with a view to increase the scope and effectiveness of the University. These activities are enlisted as:

- Organizing and conducting induction training program for newly appointed teachers in the University and refresher courses for in service teachers/ scientists.
- Empowering rural youth with knowledge and skill for improving quality and efficiency of human resources for entrepreneurship.
- Organizing advance training courses in frontier areas of agriculture, research management, educational technology, curriculum development etc. for capacity building of the faculty and staff.
- Commercialization of innovation and technologies through organized Intellectual Property Right and knowledge sharing system.
- Organizing group discussions, seminars and workshops on areas of topical interest in agricultural research and education system.
- Improving faculty competence through participation of faculty in National/ International conferences/ Symposia/ Seminars/ Workshops/ Trainings and Fellowships.
- Assessment studies in areas pertaining to productivity of faculty, their training needs etc. and develop data bank of human resources in the University.
- Introduction of best teacher/ researcher/ student/ scholar awards.

### Trainings organized

**Orientation Program :** An orientation program for newly recruited Assistant Professors/ SMSs of Sri Karan Narendra Agriculture University, Jobner was organized for 21 days from February 06-26, 2020 at University Head Quarter to acquaint them the university working system.

### National Workshop/Guest lectures

- One day National Workshop was organized on Career Development Centre (CDC) on February 12, 2020 in joint collaboration with ICAR-NAARM under NAHEP Component-2. A Model Career Development Centre (CDC) has been sanctioned to our university by NAARM, Hyderabad which has started in 2019-20.



- One day online training course for 45 newly recruited Assistant Professors was conducted on the topic "Organizing Online Training Courses" on 29<sup>th</sup> June 2020 sponsored by HCM Rajasthan State Institute of Public Administration (RIPA), Government of Rajasthan.
- As per the Central Budget Announcement, target of "Doubling Income of Farmers by 2022" was put forth and mandated. In view of this, a Brain Storming Session was organised at University Headquarter on 21.06.2020 in the meeting hall of SKNCOA, Jobner for the Directors/Deans/ZDRs of the University to prepare a strategic plan to present in the State Coordination Committee constituted by the ICAR, New Delhi in order to include the same in policies at Govt. level.

### CAFT CENTRE

Promotion of innovation in application of information communication technology in agriculture and dissemination of knowledge plays a critical role in agriculture-based growth of agriculture. ICAR New Delhi sanctioned a CAFT (Centre for Advance Faculty Training) in Plant Biotechnology at RARI, Durgapura, Jaipur in 2017. Under this programme, the council support to organize training programme of 21 days duration to teachers, research workers and specialists working in agriculture universities and ICAR institutes to update their knowledge and skills in order to keep abreast with the latest developments in the area of plant biotechnology. The basic objective of CAFT is that the agriculture professionals not only have the updated competencies in their field but must also be able to promote development and delivery of need based research and educational programmes that would enhance the livelihood security.

### CAFT Trainings

An ICAR sponsored CAFT training was Organized on "Physiological and Biotechnological Interventions Towards Climate Resilient Agriculture" from January 03<sup>rd</sup> -23<sup>rd</sup>, 2020 at RARI, Durgapura. There were total 19 participants from across the country which include Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Jammu and Kashmir, Punjab, Maharashtra, Karnataka, Assam and Rajasthan. The training was designed to be practical with lectures from eminent scientists and exposure visits were also conducted to IMD, Jaipur, NRCSS, Ajmer and SKNAU, Jobner.



### International Conference

A three days International Conference on "Innovations in Plants and Animal Sciences for Sustainable Agriculture and Rural Development (IPASSRD- 2019) was organized by National Agriculture Development Co-operative Limited (NADCL) as a joint venture with Sri Karan Narendra Agriculture University, Jobner, Rajasthan in collaboration with 16 Govt organizations including ICAR, New Delhi, ICAR institutes, Society of ICAR, State Agriculture Universities, State Veterinary & Animal Sciences





University, Central Agricultural University and State Development Departments at Rajasthan Agriculture Research Institute, Durgapura, Jaipur during Dec 7-9, 2019.

### Summer/Winter School

An ICAR sponsored 21 days summer school was organized on “Soil Health Management and Plant Nutrition under Changing Climate Scenario” from 02-22 Sept., 2019. The topic covered were Recent approaches on Soil Health and Fertility Management, Climate Resilient Agriculture, Carbon Sequestration, Carbon Trading and Green House Gas Emission, Precision Agriculture, Soil and Water Conservation Techniques, Conservation Agriculture, Biofertilizers, Biopesticides, Nano fertilizers and Speciality fertilizers, etc. The participants were also exposed for laboratory sessions and field visits.



An ICAR sponsored winter school on “Advances in Organic Manure Production and Biogas Technology for Entrepreneurial Development and Empowerment of Farmers” was organized at RARI, Durgapura during Nov 08th - 28th, 2019. 18 candidates (Assistant professors and above ranked) from 5 states of India participated in above training programme. Shri Kalrajji Mishra, Hon’ble Governor of Rajasthan inaugurated this winter school training programme at SKNAU, Jobner on 11th November, 2019. Dr M.K. Agnihotri, ADG, HRD, ICAR graced the inaugural ceremony as Guest of Honour and Prof. J.S. Sandhu, Hon’ble Vice Chancellor, Jobner presided over the inaugural ceremony.



### One Week Training

A 7 days training programme was organized on “Taxonomy of Whitegrub (Coleoptera: Scarabaeidae)” in collaboration with NBAIR-Bengaluru from 19<sup>th</sup> to 25<sup>th</sup> February, 2020 by the project Coordinating Unit, Division of Entomology, RARI, Durgapura, Jaipur in which 21 participant of the project, AINP on SAP were participated and got benefitted.



### Group Meet organized

Organized XX Group Meeting of the project, All India Network Project on Soil Arthropod Pests at University of Agriculture Science, GKVK, Bengaluru, on dated March 1-2, 2019 by the Project Coordinating Unit, Division of Entomology, RARI, Durgapura, Jaipur, in association with GKVK, Bengaluru center of the project.



**On line Webinar**

Following webinar were organized in the University during the reporting period.

- Webinar on "Agriculture, Environment & Natural Resource management: Lessons from the Pandemic" on June 5, 2020.
- Webinar on "Agripreneurship-A Step toward self Reliant India" on June 12, 2020.
- A Webinar on "Management Strategies for the desert locust" on June 27 2020.



**Dignitaries Visited**

1. Dr. M. K. Agnihotri ADG (HRD), ICAR visited the University on 11<sup>th</sup> November, 2019 during the inauguration of 21 days winter school sponsored by ICAR, New Delhi.
2. Dr. Lalit K. Panwar, IAS (Retd.) and Hon'ble Vice-Chancellor, Rajasthan ILD Skills University, Jaipur visited on 13.01.2020. An MoU was signed on this occasion.
3. Dr. L. S. Dhaliwal renowned homeopath from Brampton, Canada on 25.02.2020. He also delivered a lecture on agrohomoepathy on that day.

**MOU with other Institutes (2019-20)**

S.No.	Institute	Date	Purpose
1	ICRISAT, Hyderabad	18.12.2019	For research on dry land agriculture
2	Directorate of Rapeseed & Mustard	28.12.2019	To promote teaching, student exchange and research on rapeseed and mustard
3	Rajasthan Kaushal University, Jaipur	13.01.2020	To get exposure of our students on incubation, start up etc.
4	CIAH, Bikaner	18.01.2020	To speed up research on fruits, vegetables and plantation crops
5	National Bureau of Soil Conservation and Land Use Planning, Nagpur	19.01.2020	For research on soil health, microbiology etc
6	Agriculture University, Kota	14.07.2020	To promote and accelerate the programme of academic co-operation
7	Amity University, Jaipur	02.07.2020	To develop research in Plant Biotechnology, Nanotechnology, natural Resource management etc.

**Library and Other E-learning Resources**

The SKNAU Library is registered with Krishi kosh (ICAR) with online access facilities of university theses and other digitized materials. The link is <http://krishikosh.egranth.ac.in/handle/1/84614>. The facilities of RFID and Koha online catalogue are available in SKNCOA Library. Books worth Rs 4.82 lakh for SKNCOA library have been purchased. Modernization of college library, SKNCOA is under work and progress.

**Use of CeRa Access**

Online access (IP based) CeRa access facilities which includes j- gate, CAB abstract and Indian journals databases are available to all students and staff at 24x7 hours in the campus. A high speed Wi-Fi Internet zone



facility has also been developed in main reading hall of library out of total ceRa use, 81% students and 19% staff are using such facilities. A total of 2516, Staff & students have used CeRa facility during the year 2019-20.

### Online digital resource access under Krishikosh SKNAU (ICAR) Institutional Repositories (IR)

( <http://krishikosh.egranth.ac.in/handle/1/84614>)

The SKNAU, Jobner has been officially registered with Krishikosh database (ICAR, New Delhi) where access facilities of theses and other resources are now available online, the details are tabulated below :

Types of Digital Material	Theses	Question Papers	Manuals	Reprints	Others	Total Resource Materials
Uploaded Numbers	1636	608	45	22	37	2348

## 2.7 Directorate of Prioritization, Monitoring and Evaluation

One of the important role of DPM&E is to develop guidelines for internal evaluation which ensure the implementation of various activities included in the approved project proposal progresses as planned in the University. The directorate emphasizes on monitoring of research projects, its quality and contributions in terms of relevance, effectiveness, efficiency and forwarding research papers to scientific journals. Important activities of the directorate are publication of important documents, reports, brochures related to the university.

Apart from all the activities mentioned above, the correspondences to the Governor House for which Director PM&E is Nodal Officer, is also integral part of the activities of this unit. Various correspondences to the CMO, national and international organizations are being carried out by this unit. This directorate plays a major role in arranging for accreditation of constituent colleges of the University. The process of accreditation of College of Agriculture, Bharatpur and College of Agriculture, Fatehpur-Shekhawati has started in June 2020.

Directorate has published Annual Report 2018-19 and "Varshik Prativedan 2019" in the reporting period. A review meeting of the scientist was organized at university headquarter under the chairmanship of Hon'ble Vice Chancellor for reviewing the work of scientist of the university working at different units. In this meeting department heads presented the work report of all the scientist working under them. The presentation was made as per the performa developed by the Directorate of PM&E in consultation with the Vice- Chancellor. Besides, the directorate is sharing responsibilities for furnishing University



information, pertaining to progress and achievements to various government and non government agencies. DPME also maintains linkages with the State government departments, Indian Council of Agricultural Research, State Agricultural Universities, various departments of Govt. of India and other organizations in the best interests of the University.



### Training and Capacity Building

The following staff members of the University under want in different training programs during 2019-20

Name of Scientist	Details
Dr. A.K. Meena Dr. R.N. Sharma Dr.Y. K. Sharma Sh. M.K. Meena Sh. Ravi Kumar Meena Dr. D.K. Meena Dr. Jitendra singh Dr. Rahul Kumar Dr. Arvind Kr. Yadav Dr. Naveen Chand Pant Dr. Rahul Kumar	Orientation programme from 14 <sup>th</sup> August to 03 <sup>rd</sup> September, 2019 at SKNAU, Jobner organized by HRD, SKNAU, Jobner
Dr. Sumer Singh Punia	21 days winter school on “Advance in Organic Manure Production and BiogasTechnology for Entrepreneurship Development and Empowerment of Farmer” sponsored by ICAR & organized at RARI, Durgapura (Jaipur) Raj during November 8 to 28, 2019.
Dr. C.D. Mishra, Dr. Kailash Chandra & Sh. Hanuman Singh Jatav	Orientation programme from 14 August to 03 September 2019 at SKNAU, Jobner organized by HRD, SKNAU, Jobner
Dr. M.A. Khan, Dr. Subhita Kumawat	Orientation programme from 06 Feburary to 26 Feb. 2019 at SKNAU, Jobner organized by HRD, SKNAU, Jobner
Dr. B.S. Chandrawat	“Harnessing new generation green technologies from plant, microbial and waste sources for sustainable crop, environmental and human health” organized by Division of Agricultural Chemicals, ICAR-Indian Agricultural Research Institute (IARI), New Delhi from Dec. 26, 2019 to January 15, 2020.
Dr Pratibha Manohar	Two Week Faculty Development Program on Entrepreneurship Development from 02.3.2020-14.3.2020 at Mody University of Science and Technology, Laxmangarh
Dr Pratibha Manohar	Attended two weeks training on FDP course on LaTeX Scilab and PHP & MySQL from 20.4.2020-04.05.2020 at Jawaharlal Nehru University in association with IIT, Bombay
Dr. Suresh Sharma	Attended two weeks training on FDP course on LaTeX Scilab and PHP & MySQL from 20.4.2020-04.05.2020 at Jawaharlal Nehru University in association with IIT, Bombay
Dr. Suresh Sharma	Two Week Faculty Development Program on Entrepreneurship Development from 02.3.2020-14.3.2020 at Mody University of Science and Technology, Laxmangarh



Dr. S.S. Sharma	Orientation programme from 14 August to 03 September 2019 at SKNAU, Jobner organized by HRD, SKNAU, Jobner
Mr. Chiranjeew Kumawat	Participated in 21 days CAFT training on Assessing Soil Plant Atmosphere Continuum (SPAC) for Enhanced Input Use Efficiency from 1.10.2019 to 21.10.2019 at Department of soil Science at Punjab Agriculture University, Ludhiana
Dr. Rajhans Verma	Attended 21 days winter school on Advances in Organic Manure Production and Biogas Technology for Entrepreneurial Development and Empowerment of Farmers from 08.11.2019 to 28.11.2019 at Sri Karan Narendra Agriculture University, Jobner, Jaipur (Raj.)
Dr. Wandkar Sachin Vilas	21 days CAFT Training on "Prospects of Emerging Agro-based Processing Techniques and Business Opportunities" sponsored by Indian Council of Agricultural Research, held at ICAR-Central Institute of Agricultural Engineering, Bhopal during 14th November to 04th December, 2019.
Dr. B.L. Meena	CAFT Training "Safe and Sustainable Agriculture for Enhancing the Factor Productivity of Crops and Cropping System (4-24 Feb. 2020) GBPUAT, Pantnagar
Dr. Lokesh Kumar Jat, Dr. Vishnu Shanker Meena,	Participated in Summer School entitled "Soil Health Management and Plant Nutrition under Changing Climate Scenario", held from 2nd to 22nd September, 2019 at RARI, Durgapura, Jaipur (Raj.)
Dr. Hemraj Gurjar, Assistant	Participated in the 21 days winter school training programme on: "Advance technologies for Biofertilizers and Biopesticides Production for Profitable Sustainable Agriculture" from 08 November, 2019 to 28 November, 2019.
Dr. Niranjana Kumar Barod, Dr. Suresh Kumar Dr. Indu Bala Sethi	Participated in 21 days Orientation Programme conducted by Human Resource Department, SKNAU, Jobner from 14th August to 3rd September, 2019 Participated in CAFT, Agronomy entitled "Agronomic Interventions for Augmenting Food, Nutrition and Farmers Income" held from the dated 20 <sup>th</sup> to 10 <sup>th</sup> Dec. 2019 at Department of Agronomy, GBPUA&T, Pantnagar (Uttarakhand)
Dr Indu Bala Sethi Dr. Lokesh Kumar Jat Dr. Deepak Gupta	Participated in 21 days Orientation Programme conducted by Human Resource Department, SKNAU, Jobner from 6 <sup>th</sup> to 26 <sup>th</sup> February, 2020
Dr. S. C. Mahala Dr. Mujahid Khan Dr. Ramu Meena	Joined International Webinar on VII-NGGIBCI on Genomics for Food, Health and Nutrition" organized by ICRISAT, Hyderabad on 14.05.2020 3 <sup>rd</sup> Orientation Programme organized by Directorate of HRD, SKNAU Jobner from 6-26 Feb., 2020
Mr. Joginder Singh	Attended 21 days CAFT training on "Physiological and Biotechnological Interventions Towards Climate Resilient Agriculture" held at RARI, Durgapura from Jan. 03-23, 2020.
Mr. M R Yadav, Dr. Shweta Gupta, Dr. Pratibha Singh, Dr. Niting Garg	Attended 21 days Orientation Programme organized by the Director, HRD, SKNAU, Jobner at University campus, Jobner from Feb 6-26, 2020.
Mr. Joginder Singh	Attended 21 days Orientation Programme organized by the Director, HRD, SKNAU, Jobner at University campus, Jobner from 14 Aug to 3 Sept., 2019.





### Participation of Scientists in the workshop/ Seminar/Symposium etc.

The details of the staff members of the teaching faculty of various units participated in the conference/workshop/Symposium (National/International) etc. during the academic session 2019-20 is as under.

Dr. Dharendra Singh, Dr. D. K. Gothwal, Dr. A. C. Shivran and Mr. G. L. Kumawat attended XXX Annual Workshop of AICRP on Spices at TNAU, Coimbatore (TN) from November 13-16, 2019.

Dr. M.L. Jakhar and Dr. Priyanka Kumawat attended Annual Group Meet of Rapeseed – Mustard at Birsa Agricultural University, Ranchi (Jharkhand) from August 03-05, 2019.

Dr. Varsha Kumari and Dr. Priyanka Kumawat attended international conference on Innovation in Plant and Animal Sciences for Sustainable Agriculture and Rural Development (IPASSARD 2019) organized by SKNAU, Jobner and NADCL, Zainakotte, Srinagar (J & K) from December 07-09, 2019.

Dr. R.P. Jat attended National Conference of ISAPM 2020 entitled “Paradigm shift in livestock management to obtain high quality animal products for enhancing farm economy and entrepreneurship” PGIVER (RAJUVAS), Jaipur from 4-6 Feb, 2020

Dr. J. P. Yadav attended National Seminar at SKRAU, Bikaner organised by ISEE, and New Delhi from 14-16 Nov., 2019.

Dr. S.P. Singh attended International conference on Innovations of Plant and Animal Sciences for Sustainable and Rural Development organised by National Agriculture Development Co-operative Ltd. from 05-07 November 2019.

Dr. L. N. Bairwa, Dr. M.R. Choudhary, Dr. A.K. Soni, Dr. M.K. Sharma, Dr. S.P. Singh, Dr. R.P. Ghasolia, Dr. D.K. Bairwa, Dr. D.L. Bagdi, Dr. S.L. Sharma attended Brain Storming Session on Innovation and Productivity of the Arid fruits organized by SKNAU, Jobner on 18.1.2020

Dr. Hem Raj Gurjar attended National Symposium on “Nematodes: A Threat to Food Security and Farmer’s Livelihood” From 11-13 December, 2019 organised by Nematological Society of India, ICAR, New Delhi at Manipur University, Indo Myanmar Road, Canchipur, Imphal, Manipur

Dr. D. K. Yadav and Dr. Parvatee Deewan Participated in Annual Workshop of AINRP on Onion & Garlic organized by ICAR - Directorate of Onion and Garlic Research Rajgurunagar, Pune at IARI, New Delhi from 31<sup>st</sup> May to 2<sup>nd</sup> June 2019

Dr. Parvatee Deewan Participated in International Conference on Environmental Ethics, Resources Management and Regional Development Issues, Challenges and Prospects organized by Department of P.G .Studies in Geography, Dr. Bhim Rao ambedkar Government College- Sri Ganganagar (Raj.) from 29-30, November, 2019

Dr. Parvatee Deewan Participated in National Seminar on Globalization, Governance and Inclusive Development organized by Rajasthan University of Jaipur 7-8 February, 2020

Dr. D.K. Gupta attended opening and velidectory ceremony of International Conference on Innovation in Plant and Animal Science for Sustainable and Rural Development on 07.12.2019 and 09.12.2019 at RARI, Durgapura

Dr. B.K. Tripathi and Dr. Ramu Meena attended Annual Group Meeting of AICRP on Agroforestry at FCRI - TNAU Coimbatore from 18-20 Sept., 2019



Dr. S.S. Rajput Attended 58<sup>th</sup> All India Wheat & Barley Research Workers Meet at ICAR-IARI, Regional Research Station, Indore from 24-26 Aug., 2019

Dr. S.S. Rajput Participated in International Conference on Innovations in Plant and Animal Sciences for Sustainable Agriculture and Rural Development (IPASSARD 2019) at RARI, Durgapura from 7-9 Dec., 2019

Dr. S.S. Rajput & Dr. C. L. Khatik Joined International Webinar on VII-NGGIBCI on Genomics for food, health and nutrition” organized by ICRISAT, Hyderabad on 14.05.2020

Dr. B.L. Meena, Asstt. Prof.(Agronomy) attended Annual Group meeting of AICRP-IFS on Nov. 27-29 2019 at JAU, Junagadh, Gujrat.

Dr. V.S. Yadav, Prof. (Hort.) & Dean attended and acted as Co-chairman of technical session Horticulture during International conferences on “Innovation in Plant and Animal Sciences for Sustainable Agriculture Development” RARI, Durgapura (organized by SKNAU, Jobner and NADCCL, J&K) 07-09 Dec., 2019.

Sh. Ravi Kumar Meena, Asstt. Prof. (SSAC) attended International conferences on “Innovation in plants and animal sciences for sustainable agriculture development” RARI, Durgapura (organized by SKNAU, Jobner and NADCCL, J&K) 07-09 Dec., 2019.

Dr. S.K. Bairwa, Asstt. Prof. (Hort.) attended National seminar on Smart Horticulture (under NAHEP-IG, ICAR, New Delhi, India) College of Horticulture and Forestry, Jhalawar, 30-31 January, 2020.

Dr. S.K. Bairwa, Asstt. Prof. (Hort.) attended Indian Horticulture Summit-2020 “Mitigation climate changes and doubling farmers’ income through diversification at Mahatma Gandhi Chitrakoot Gramodya Vishwavidyalaya, Chitrakoot (M.P.) 12-14 February, 2020.

Dr. A. R. K. Pathan attended Annual workshop of AINP on Pesticide Residues, 2019 at K.A.U, Vellayani, Kerala

Dr. Devendra Kumar Meena attended the national Conference on “Global Perspective in Agricultural & Applied Sciences for Food and Environmental Security” (GAAFES-2019) organized at Kumaun University, Nainital (UK) from December 1 to 2, 2019.

Dr. Sweta Singh attended the International conference on 3<sup>rd</sup> global meet on “Science and Technology for Ensuring Food & Nutrition Security (GMAT 2019) organized at National Research Centre on Seed Spices, Ajmer (Raj) during December 1 to 3, 2019.

Dr. Jitendra Singh attended the International Conference on “Innovation in Plant and Animal Sciences for Sustainable Agriculture & Rural Development” organized at RARI, Durgapura (Jaipur) Raj from December 7 to 9, 2019.

Dr. Sheela Kharkwal attended the 27<sup>th</sup> Annual Conference of Agricultural Economics Research Association (India) organized by Department of Economics & Sociology PAU, Ludhiana during December 17 to 19, 2019.

Dr. L. D. Sharma, Dr. K.C. Gupta, Dr. Vipin Kumar & Dr Nitin Chawala attended Annual Group Meet of AICRP chickpea organized by ICAR-IIPR Kanpur and BAU Ranchi in Aug 2019.

Dr. K. C. Gupta, Dr. Vipin Kumar, Dr. S. K. Jain, Dr. Nitin Chawala, Dr. S S Shekhawat, Mr. Jogendra Singh Dr. Rani Saxena & Dr. B L Jakhar attended International conference on Innovation in Plants and Animal Science for Sustainable Agriculture and Rural Development organized by SKNAU & NADCL J&K.

Dr. S.K. Jain attended International conference on Pulses as the Climate Smart Crops: Challenges & Opportunities (IC Pulses 2020) at Bhopal in Feb. 2020.



Dr. Vipin Kumar attended XIX International Plant Protection congress-2019 on “crop protection to outsmart climate change for food security & Environmental conservation” organized by International Plant Protection Association of India, held at ICRISAT, Hyderabad (Telangana) in Aug 2019.

Dr. S S Shekhawat, Dr. O P Meena and Mr Ashok Meena attended Annual Group Meet of Arid Legume at Acharya N.G.Ranga Agricultural University Guntur (A.P.) in May, 2020.

Dr. A C Mathur and Mr Jogendra Singh attended Joint Annual Group Meeting of AICRP- National Seed Project (Crops) and ICAR Seed Project along with Annual Breeder Seed Review Meeting during 14<sup>th</sup> –15<sup>th</sup> May, 2020 through video conferencing.

Dr. Pratibha Singh attended 3 days Webinar on” Post COVID Agriculture” organized by Vivekanand Global University, Jaipur in May 2020.

Dr. P S Shekhawat, Dr Hoshiyar Singh, Dr. S.P. Bishnoi, Dr. S.S. Rajput, Mr. M. R. Yadav and Mr. Nitin Garg attended 58<sup>th</sup> All India wheat and barley research workers meet 2019 at Indore (M.P.)

Dr. R.A. Sharma attended National Conference on paradigm shift in livestock management to obtain high quality animal products for enhancing farm economy and entrepreneurship in Jaipur in Feb 2020.

Dr. R Sammauria attended Annual Group Meet of AICRP-Integrated Farming Systems from 26-28 November 2019 at Junagarh, (Gujrat).



# SEED PRODUCTION

Additional Director Research (Seeds) unit function as Coordinator and facilitator for quality seed production at colleges, ARS, ARSS and KVKs of SKNAU, Jobner. ADR (Seeds) monitored the production and supply of required quantity of breeder seeds with high purity and supply to Central Govt., State Govt, PSUs and private seed company. The high yielding varieties of certified and truthful label seeds produced at SKNAU are kept under sales at Colleges, ARS, ARSS, and KVKs for generation of revenue to the university. Seed production in the university during 2019-20 has been mentioned below.

## 1. Breeder seed

Year 2019-20	Breeder seed (q)		TFL Seed	
	Kharif	Rabi	Kharif	Rabi
	333.69	2602.89	218.41	2463.65

## 2. Kharif 2019 (Breeder Seed)

S.No.	Crop	Varieties	Year of release	Area sown (ha)	Production (q)
1.	Clusterbean	RGC 1033	2011	5.00	52.47
		RGC 1038	2009	3.60	41.70
		RGC 1066	2007	0.50	1.60
		RGC 1017	2002	0.30	3.18
		RGC 1003	1999	0.30	1.12
		RGC 986	1992	0.30	1.05
2.	Mungbean	RMG 975	2016	1.90	7.49
		MSJ 118	2016	2.00	1.95
		Virat	2016	0.50	0.20
		Sikha	2016	0.50	0.30
		MH 421	2012	11.00	64.94
		IPM 02-3	2011	1.50	0.80
3.	Urd bean	Pratap Urd-1	2016	1.50	4.50
		Mukandra Urd-2	2016	1.50	4.00
4.	Groundnut	RG 425	2011	0.50	16.20
		RG 510	2012	1.30	36.10
		RG 578	2015	1.40	41.60
		RG 559-3	2016	3.00	31.73



5.	Cowpea	RC-19	1987	2.00	1.90
		RC 101	2001	2.00	4.88
		CPD 119	2018	1.00	4.70
6.	Pearl millet	RIB 494*	2011	0.20	0.15
		RIB 192*	2011	0.20	0.58
		ICMA933333*	2011	1.00	4.15
		Raj 171	1992	1.00	6.40
<b>Total</b>				<b>44.00</b>	<b>333.69</b>

\*Inbred lines of pearl millet hybrids

### 3. Crop wise (Breeder seed) kharif 2019

S.No.	Crop	Production (q)
1.	Clusterbean	101.12
2.	Mungbean	75.68
3.	Urdbean	8.50
4.	Groundnut	125.63
5.	Cowpea	11.48
6.	Pearlmillet	11.28
<b>Total</b>		<b>333.69</b>

### 5. Breeder Seed (Rabi 2019-20)

S.No.	Crop	Varieties	Year of release	Area sown (ha)	Production (q)
1	Wheat	Raj 4238	2013	25.10	812.40
		Raj 4079	2011	8.00	264.00
		Raj 4120	2009	1.00	29.90
		Raj 4083	2007	0.5	27.60
		Raj 4037	2004	3.0	90.50
		Raj 3765	1996	3.0	85.00
		Raj 3077	1989	3.0	67.00
		Raj 1482	1983	5.3	122.80
2.	Barley	RD 2899	2018	0.5	21.80
		RD 2907	2018	0.2	4.20
		RD 2849	2016	0.1	3.90
		RD 2794	2016	4.3	189.80



		RD 2786	2013	5.0	205.50
		RD 2035	1994	5.0	177.60
		RD 2052	1991	0.5	13.60
3.	Gram	CSJ 515	2016	28.5	282.40
		RSG 479	2011	8.0	95.00
4.	Lentil	RLG 5	2016	3.0	51.00
		Kota Mashure-1	2018	1.5	15.05
5.	Fieldpea	RFP 4	2016	0.5	5.11
		HFP 529	2012	1.5	3.55
6.	Coriander	RCr 435	2004	1.0	14.35
		RCr 436	2002	1.0	6.86
		RCr 728	2010	1.0	4.60
7.	Taramira	RTM 1351	2017	0.5	0.81
		RTM 1355	2017	0.5	5.10
8.	Fenugreek	RMt-1	1990	0.5	3.35
		<b>Total</b>		<b>112.5</b>	<b>2602.89</b>

#### 6. Crop wise (Breeder seed) Rabi 2019-20

S.No.	Crop	Production (q)
1	Wheat	1499.30
2	Barley	616.41
3	Gram	377.40
4	Lentil	66.05
5	Fieldpea	8.66
6	Coriander	25.81
7	Taramira	5.91
8	Fenugreek	3.35
	<b>Total</b>	<b>2602.89</b>

#### 7. TFL Seed Kharif 2019 cropwise

S.No.	Crop	Production (q)
1	Clusterbean	140.70
2	Mungbean	46.57
3	Urdbean	10.80



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### **Review Articles/ Book Chapters**

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