

# Annual Report 2019-2020



Annual Report : 2019-2020



**बाँदा कृषि एवं प्रौद्योगिक विश्वविद्यालय**  
बाँदा-210001 (उ.प्र.)  
**BANDA UNIVERSITY OF AGRICULTURE & TECHNOLOGY**  
**BANDA-210 001 (U.P.)**

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**Dr. U.S. Gautam**  
Vice Chancellor

## *Foreword*


**A**griculture sector is undoubtedly the largest livelihood sector in India. It has made remarkable progress in terms of food and nutritional security through several phases since independence. Current demand for quality and nutritious food can only be met by sustainable and secondary agriculture. The areas like Bundelkhand region belong to dryland rainfed farming system have limited natural resources, therefore, it is of utmost importance to perform agricultural operations through skillful implementation of appropriate scientific technologies.

Banda University of Agriculture and Technology, Banda has been constantly achieving its goals and serving for farming community and in nation building. The university has initiated significant steps in the fields of teaching, research and extension. A major push in research segment has been experienced with induction of new research programmes and establishment of Centre of Excellence for Dryland Agriculture, Tissue Culture Lab, structures for Protected Cultivation, Cattle Conservation and Augmentation Unit, Apiary Unit, Molecular Plant Breeding Laboratory and Centre for ELP on Mushroom Production. Recently, we have started the Under Graduate programme in College of Home Science from this academic session. The strength of undergraduate students has also doubled and the university is committed to excel in the field of higher agricultural education. The university has launched three flagship extension programmes viz. '*Kisan PRAGATI*', '*Bundeli Chaupal*' and '*Bundelkhand Jaivik Corridor*' to extend its outreach among farmers of Bundelkhand region. In addition to it, the university has also been sanctioned a new KVK in district Prayagraj.

The university, in collaboration with Department of Planning, Government of U.P., organized a National Seminar on 'Bundelkhand Development: Issues, Strategies & Way Forward' for formulating a holistic development programme for Bundelkhand region.

At the mid of the academic session, it was really unfortunate that we experienced a pandemic COVID 19. However, the university has tried to give its best output in online teaching to students, with support of its faculty members. Hope, we all will come out by this pandemic with the time.

It gives me immense pleasure to present the annual report 2019-20. The present report details about overall development and achievements of the university. I express my sincere gratitude to Hon'ble Chancellor, Smt. Anandiben Patel for her timely guidance. I convey my sincere regards to Shri Surya Pratap Shahi, Hon'ble Minister, Agriculture, Agriculture Education and Research and Shri Lakhna Singh, Hon'ble Minister of State, Agriculture, Agriculture Education and Research, Government of Uttar Pradesh for their technical support and financial assistance. I also express my gratitude to the Hon'ble members of the Board of Management and Academic Council for their untiring guidance, support and cooperation. I also complement the committee members who compiled the Annual Report and made it presentable.

  
US Gautam



# Contents

University Portfolio	1
Infrastructure and Amenities	6
College of Agriculture	15
College of Horticulture	23
College of Forestry	29
College of Home Science	34
Directorate of Research	37
Directorate of Extension	56
Directorate of Seed and Farms	65
Students' Welfare Activities	67
Major Activities	71
Annexure-I : University Publications	79
Annexure-II : Faculty Development	84
Annexure-III: Awards and Recognitions	89
Annexure-IV: Visits of Distinguished Dignitaries	90
Annexure-V: University in News	91



## Executive Summary

This report presents the progress of Banda University of Agriculture and Technology (BUAT), Banda progress during 2019-20. The major highlights of the milestones accomplished by the university are appended below.

- The University is guided by a Board of Management (BoM), which is the policy making body and also responsible for the management of the University. The two (20<sup>th</sup> & 21<sup>st</sup>) BoM meetings were held in chairmanship of Hon'ble Vice Chancellor during 2019-20.
- During the reported period, 3 meetings (15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup>) of Academic council were held under the chairmanship of Hon'ble Vice Chancellor:
- The university has made significant progress in infrastructure and amenities, all four colleges viz. CoA, CoH, CoF & CoH.Sc. are running with well equipped undergraduate labs in all the Departments. The Post Graduate laboratories have been established in various departments and in few departments establishment is in progress. The construction of College of Veterinary and Animal Husbandry (CoVSc & AH) building has been completed and initial batch will start for their degree programme in B.V.Sc. & A.H. once VCI approves it.
- The Central Library has made remarkable progress during previous year. The library is equipped with twelve computers with internet connectivity. Library has also got the acquisition to online e-journals, J-GATE (Agriculture & Biological Sciences) and subscribed 32 e-books. A total of 874 print books have been purchased in the year 2019-20 making the total number of print books to 9521. Digitization of the Central Library is in progress.
- Media & IT Cell was established and inaugurated by Dr. U. S. Gautam, Hon'ble Vice Chancellor, BUAT, Banda on 19<sup>th</sup> July 2019. Media and IT cell achieved one of the milestones by establishing internet connectivity through leased line provided by BSNL, Banda. Now, the WiFi facility is available to all the faculties, students and staff members in College of Agriculture.
- Besides 5 functional boys' hostel, the construction of a new hostel with capacity of 100 students is about to complete and the accommodation will be started from the academic session 2020-21.
- Agro-meteorological observatory is fully functional as per the guideline of IMD. Observatory is collecting weather data regularly. Based on the agrometdata in every fortnight, agro-advisory committee is providing agro-advisory to the farmers of Bundelkhand region.
- An apiary has established to demonstrate beekeeping among students and farmers as well as to tap the potentialties of beekeeping in Bundelkhand region. Besides this, the AICRP (Honey Bees & Pollinators) centre and College of Forestry have developed a bee pasture at 6 acres of area with variety of nectar and pollen producing plants viz. *Moringa oleifera*, *Peltophorum* sp., Arjun, Karanj, *Morus* sp., Mango, and *Cassia siamia*.
- Mushroom laboratory has established under experiential learning programme to develop the entrepreneurial skills of spawn and mushroom production among students and farmers of Bundelkhand region in the Department of Plant Pathology, CoA.
- The University Farm Development Committee developed a total of 199.96 ha of area by cleaning and removal of minor undulations and made the land suitable for agriculture purpose. Post graduate research block, seed production blocks of cereals, millets, vegetables, flower production, MAPs block, fodder block, dairy unit, apiculture unit, zero budget agriculture field, organic farming block and goatry unit were established in the developed land. Besides this, rain water harvesting structure were also developed by the committee.
- Integrated Farming System (IFS) Unit has been established on one hectare of area with various dryland specific components viz. cropping system, orchards, vegetables, flowers, fodder crops along with pond fishery, poultry, duck, mushroom, goat, vermicompost and NADEP compost, cattle, etc.
- The university established 6 different protected structures such as natural ventilated polyhouse, insect-proof net house, green shade net and mist



chamber with hardening chamber under the project “Centre of Excellence on Dryland Agriculture” in July 2019 for cultivation of high value vegetable crops.

- A Small four-bed Health Centre was established at Convenience Centre for providing health services to the students, employees and officers of the University under the supervision of a Medical Officer. The centre has been acted as COVID19 Help Desk during pandemic period.
- On the occasion of 5<sup>th</sup> International Yoga Day on June 21<sup>st</sup>, 2019, the gymnasium of the university was inaugurated by Dr. U. S. Gautam, Hon’ble Vice Chancellor. The gymnasium is well equipped with various tools.
- One Cattle Conservation and Augmentation Unit is established in Banda University of Agriculture & Technology, Banda with the objectives of domestication, conservation and for breed improvement programme of stray and non-descript cattle.
- A significant progress is observed in the Ken irrigation project worth of 1874.86 lakh during 2019-20. Laying of HDPE line for conveyance and installation of 33/ 0.44 kV substation for supply of electricity for pump house has been done. The trial for canal has also been completed successfully and Pond No.1, 2 & 3 are being filled with canal water. The developed facility can irrigate about 600 acres of land in University campus and 500 acres land in adjoining areas of the university.
- The University has started the production, processing and distribution of quality seeds of urd, moong, pigeonpea, chickpea and lentil to the farmers with the establishment of seed hubs one at the University campus and three in KVKs under the Central Govt. Project “*Creation of seed hubs for increasing indigenous production of pulses in India*” implemented by Indian Institute of Pulses Research (IIPR), Kanpur as Nodal Agency. During 2018-19, a total of 256.4 q seed of different varieties of black gram was produced; however, 13.4 q, 54.8 q and 3 q seed of green gram, pigeonpea and sesame, respectively, were produced during *Kharif*, 2018. The seed of different pulse crops viz., 667.1 q chickpea, 1115.9 q field pea, 212.6 q lentil; cereal crops viz., 288.7 q wheat, 7.7 q barley and oilseed crops viz., 13.0 q linseed and 3.0 q mustard were produced during *Rabi* 2018-19.
- A total of 126, 121, 65 and 03 students were enrolled at Colleges of Agriculture, Horticulture, Forestry and Home Science respectively in UG Programmes during academic session 2019-20. Under Post Graduate (PG) programmes, 30 and 18 students were admitted in College of Agriculture and College of Horticulture, respectively.
- The fifth batch (2015) of B.Sc. (Hons.) Agriculture (55 students) and Horticulture (48 students) passed with the first division in the session 2018-19. They have been awarded degrees in the Fifth Convocation held on 03 October, 2019. The three students of each college viz. CoA and CoH were awarded Vice Chancellor Gold, Silver and Bronze Medal for attaining 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> position, respectively. In addition, total 26 Merit Certificates were also distributed to the students of colleges of Agriculture and Horticulture during this event. Among the students, four students of the university qualified the ICAR JRF Examination for PG studies. Remaining students qualified UPCATET and other competitive examination of central and state universities and pursuing post graduate degree.
- As a part of University Cultural Team, 10 students participated in 20<sup>th</sup> All India Agricultural Universities Youth Festival held at Indira Gandhi Krishi Vishwavidyalaya, Raipur during February 8-12, 2020; and a team of 28 student athletes participated in 20<sup>th</sup> All India Inter Agricultural Universities Sports and Games Meet (Agri-UniSports) held at Sri Venkateshwara Veterinary University, Tirupati, Andhra Pradesh from March 1-5, 2020.
- Experiential Learning Programme (ELP) on “Development of entrepreneurship skills through spawn and mushroom production” has been started in Department of Plant Pathology, CoA, funded by ICAR, New Delhi. In addition, various ELP modules are also being carried out by different colleges.
- 34 faculty members of the university were awarded by various reputed organisations for

their significant contribution in teaching, research and extension.

- Presently, three international project, 12 All India Coordinated Research Projects (AICRPs) and 14 other projects including 4 private funded projects are being carried out in the university. Recently five projects have also been sanctioned from various funding organisations.
- The Directorate of Research has conducted research oriented workshops and brain storming sessions to finalise the research priorities of the Bundelkhand region.
- The Directorate has also strengthened the various Regional Research Stations of the university streamlining the research activities.
- The Laboratory of Molecular Plant Breeding has established under the CEDA project in Department of Genetics and Plant Breeding. This laboratory is committed to accelerate breeding programmes through omics interventions for identification, characterization and development of biotic and abiotic stress tolerant high yielding varieties of pulses and oilseeds for Bundelkhand region.
- The Directorate of Extension organised its first Extension Council Meeting on April 13, 2019 under the chairmanship of Hon'ble Vice Chancellor, Dr. U.S. Gautam. Dr. A.K. Singh, DDG, Agricultural Extension, ICAR, New Delhi was the chief guest of this occasion.
- All the Krishi Vigyan Kendras under Banda University of Agriculture and Technology were visited by QRT members constituted by Indian Council of Agricultural Research, New Delhi on November 13-14, 2019. The committee was chaired by Dr. Gaya Prasad, Ex-Vice Chancellor, SVPUAT, Meerut.
- The university has launched its flagship programme '**Programme for Rural and Agricultural Advancement through Technological Intervention (BUAT-Kisan PRAGATI)**' on 14<sup>th</sup> April, 2019 for agricultural and rural development in 100 villages of Bundelkhand.
- The university has started a novel initiative "**Bundeli Krishi Chaupal**" to solve the social, educational, agricultural problems of farming community at their door step.
- **Jaivik corridor** programme has been started by the university for the promotion of organic farming among the farming community of seven districts of Bundelkhand region of Uttar Pradesh.
- The ICAR, New Delhi sanctioned to establish a new KVK in Prayagraj under the aegis of BUAT, Banda. For the establishment of KVK, the state government has allocated 9.67 ha land at Bahania Farm in the block Chhata, Prayagraj. The MoU and land transfer process is in final stage.
- The Directorate of Extension, through its KVKs, imparted 488 trainings to the farmers, rural youth, extension functionaries and scientists. The KVKs extended their capacity building programmes to 10853 farmers, 417 rural youths and 804 extension functionaries. Besides this, the KVKs also organized 26 sponsored trainings for 1204 beneficiaries of other agencies and 12 vocational trainings for 225 potential entrepreneurs.
- The important technologies of seeds, weed control, INM and IPM were demonstrated at farmers' fields. Total 369.6 ha area was covered under various demonstrations on 1177 farmer's fields. Besides this, total 72 technologies were taken under OFT. Out of them 70 technologies were assessed in crops, live stock and other allied sectors; and 02 technologies were refined in the field of live stock. Total 2478 trials were conducted with participation of 2599 farmers.
- Dean Students Welfare Office organised several co-curricular activities including Blood Donation Camp, Parthenium Awareness Week, National Youth Week, University Foundation Day, etc.
- A mega plantation drive was organized in the university campus during 'Van Mahotsava Maah'. The College of Forestry organized *Avenue Plantation* programme at BUAT, Banda on 9<sup>th</sup> August 2019. Programme was inaugurated by Hon'ble VC and planted the tree saplings at different sites.
- Hon'ble Chief Minister, Govt. of U.P., Shri Yogi Adityanath visited the university campus first time on December 08, 2019. Dr. U.S. Gautam, Hon'ble Vice Chancellor welcomed the Hon'ble Chief Minister and briefed the achievements of the university.

- The University jointly organized a National Seminar on “Socio-Digital Approaches for Transforming Indian Agriculture” in association with Indian Society of Extension Education (ISEE), New Delhi and CCS HAU, Hisar. The seminar was organized during November 20-22, 2019 at CCS HAU, Hisar. More than 500 participants included scientists, academicians, extension professionals, research scholars and farmers across the country marked their presence.
- The university has oriented a TB Awareness Campaign and a total 79 TB patients from Banda district were adopted by the faculty members of the university.
- A Seminar on Apiculture as Entrepreneurial Venture Doubling Farmers’ Income was organized by Banda University of Agriculture and Technology, Banda during February 25<sup>th</sup> – 26<sup>th</sup>, 2020 with financial support from RKVY, Govt. of Uttar Pradesh.
- 1<sup>st</sup> Zonal Convention of UP East Zone on “*Climate Resilient Agriculture for Sustainable Development of Rural Economy*” was jointly organized by *Vidyarthi Kalyan Nyas*, Bhopal and BUAT, Banda during February 25–26, 2020.
- In light of outbreak of COVID 19, the University initiated an awareness campaign among students and staff. A COVID19 Help Desk was established to monitor the outbreak in the campus. The university has followed the proper guidelines suggested by state and central government authorities, time to time.
- A National Seminar on ‘*Bundelkhand Development: Issues, Strategies & Way Forward*’ was organized by BUAT, Banda in collaboration with Department of Planning, Government of U.P. The seminar was held during January 10-11, 2020 at university campus. The seminar was attended by 1595 delegates from Primary, Manufacturing, Service and Water sector including scientists, experts, policy makers, beneficiaries, bureaucrats, bankers, markets producers and NGOs. Hon’ble Minister of Agriculture, Agriculture Education and Research, Shri Surya Pratap Shahi inaugurated the seminar with key presence of Shri Kunwar Manvendra Singh, Chairman, Bundelkhand Development Board, Dr. U.S. Gautam, Hon’ble Vice Chancellor, BUAT and other dignitaries.
- The Department of Agricultural Extension, College of Agriculture organized 5 days Entrepreneurship Development Programme on Goat Farming from 18 to 22 February, 2020. The EDP was conducted under SC-ST Sub Plan Scheme of ICAR, New Delhi.
- The Placement and Counselling Cell of the University conducted Students-Industry Interface, Career Orientation Workshop, Personality Development Session and a Workshop on Soft Skills for Entrepreneurship among Agri Graduates.

## कार्यकारी सारांश

यह रिपोर्ट सत्र 2019-20 के दौरान बांदा कृषि एवं प्रौद्योगिक विश्वविद्यालय, बांदा की प्रगति को प्रस्तुत करती है। विश्वविद्यालय की विशिष्ट उपलब्धियों का बिन्दुवार प्रस्तुतिकरण किया गया है।

- माननीय कुलपति की अध्यक्षता में विश्वविद्यालय के प्रबन्धन कार्यकारिणी के सदस्यों की दो बैठकों का आयोजन सत्र 2019-20 के दौरान किया गया।
- सत्र 2019-20 के दौरान विद्वत परिषद की 15वीं, 16वीं और 17वीं बैठक आयोजित हुई।
- विश्वविद्यालय ने सभी चार महाविद्यालयों की आधारभूत संरचना और सुविधाओं में महत्वपूर्ण प्रगति की है। कृषि महाविद्यालय, उद्यान महाविद्यालय, वानिकी महाविद्यालय तथा गृह विज्ञान महाविद्यालय के सभी विभागों में सुसज्जित स्नातक प्रयोगशालाओं के साथ शिक्षण कार्य चल रहे हैं। विभिन्न विभागों में स्नातकोत्तर प्रयोगशालाएं स्थापित की गई हैं और कुछ विभागों में स्थापना कार्य प्रगति पर है। पशु चिकित्सा एवं पशुपालन महाविद्यालय के भवन का निर्माण कार्य पूरा हो चुका है और VCI से संस्तुति के उपरान्त स्नातक कार्यक्रम शुरू होगा।
- केंद्रीय पुस्तकालय ने पिछले वर्ष के दौरान उल्लेखनीय प्रगति की है। पुस्तकालय में इंटरनेट कनेक्टिविटी के साथ बारह कंप्यूटरों से सुसज्जित ARIS केन्द्र की स्थापना की गई है। पुस्तकालय द्वारा ऑनलाइन ई-जर्नल, जे-गेट (कृषि और बायोलॉजिकल विज्ञान) और 32 ई-पुस्तकों की सदस्यता भी ली गई है। वर्ष 2019-20 में कुल 874 पुस्तकें खरीदी गईं और इस प्रकार पुस्तकालय में पुस्तकों की कुल संख्या 9521 हो गई है। केंद्रीय पुस्तकालय का डिजिटलीकरण भी जारी है।
- मीडिया और आईटी सेल का उद्घाटन 19 जुलाई, 2019 को डॉ. यू. एस. गौतम, माननीय कुलपति, बीयूएटी, बांदा द्वारा किया गया। बीएसएनएल, बांदा द्वारा प्रदान की गई लीज लाइन के माध्यम से इंटरनेट कनेक्टिविटी स्थापित करके मीडिया और आईटी सेल ने एक विशिष्ट उपलब्धि हासिल की। अब, कृषि महाविद्यालय में सभी शिक्षकों, छात्रों और कर्मचारियों के लिए वाईफाई सुविधा उपलब्ध है।
- वर्तमान में, विश्वविद्यालय में 5 छात्रावासों के अलावा, 100 छात्रों की क्षमता वाले एक नए छात्रावास का निर्माण कार्य भी पूरा होने वाला है जिसका आवंटन शैक्षणिक सत्र 2020-21 से शुरू किया जाएगा।
- कृषि-मौसम संबंधी वेधशाला, आईएमडी के दिशानिर्देश के अनुसार पूरी तरह संचालित है। वेधशाला नियमित रूप से मौसम संबंधी सूचनाएँ एकत्र कर रही है। हर पखवाड़े में एग्रोमेट डाटा के आधार पर, बुंदेलखंड क्षेत्र के किसानों को कृषि-सलाहकार समिति, कृषि-सलाह प्रदान कर रही है।
- बुंदेलखंड क्षेत्र में मधुमक्खी पालन की संभावनाओं के दृष्टिगत, छात्रों और किसानों के बीच मधुमक्खी पालन का प्रदर्शन करने के लिए एक एपीयरी की स्थापना की गई है। इसके अलावा, AICRP (Honey Bees & Pollinators) केंद्र और वानिकी महाविद्यालय ने 6 एकड़ क्षेत्र में मधुमक्खी हेतु पास्चर बनाया है जिसमें विभिन्न प्रकार के नेक्टर और पराग उत्पादक पौधे हैं।
- पादप रोग विज्ञान विभाग, कृषि महाविद्यालय में बुंदेलखंड क्षेत्र के छात्रों और किसानों के बीच मशरूम और मशरूम उत्पादन में उद्यमशीलता व कौशल विकास के लिए अनुभावात्मक शिक्षण कार्यक्रम के अन्तर्गत मशरूम प्रयोगशाला स्थापित की गई है।
- विश्वविद्यालय की कृषि प्रक्षेत्र विकास समिति ने कुल 199.96 हेक्टेयर क्षेत्र को कृषि योग्य बनाने के लिए विकसित किया। विकसित भूमि में पोस्ट ग्रेजुएट रिसर्च ब्लॉक, अनाज के बीज उत्पादन ब्लॉक, बाजरा, सब्जियां, फूल उत्पादन, एमएपी ब्लॉक, चारा ब्लॉक, डेयरी यूनिट, एपीकल्चर यूनिट, जीरो बजट कृषि क्षेत्र, जैविक खेती ब्लॉक और बकरी इकाई स्थापित किए गए हैं। इसके अलावा, समिति द्वारा वर्षा जल संचयन संरचनाएँ भी विकसित की गईं।
- इंटीग्रेटेड फार्मिंग सिस्टम (IFS) यूनिट की स्थापना एक हेक्टेयर क्षेत्र में विभिन्न ड्रायलैंड विशिष्ट घटकों के साथ की गई है। जिसमें फसल प्रणाली, बाग, सब्जियाँ, फूल, चारे की फसल के साथ-साथ तालाब में मछली पालन, मुर्गी पालन, बत्तख, मशरूम, बकरी, वर्मीकम्पोस्ट और NADEP खाद, आदि का समावेश किया गया है।

- विश्वविद्यालय ने उच्च मूल्य वाली सब्जी फसलों की खेती के लिए जुलाई 2019 में 'सेंटर ऑफ एक्सीलेंस ऑन ड्रायलैंड एग्रीकल्चर' परियोजना के तहत 6 अलग-अलग संरक्षित संरचनाएं जैसे प्राकृतिक हवादार पॉलीहाउस, कीट-अवरोधी नेट हाउस, ग्रीन शेड नेट और मिस्ट चैंबर की स्थापना की गई।
- एक चिकित्सा अधिकारी की देखरेख में विश्वविद्यालय के छात्रों, कर्मचारियों और अधिकारियों को स्वास्थ्य सेवाएं प्रदान करने के लिए सुविधा केंद्र में एक चार बेड का स्वास्थ्य केंद्र स्थापित किया गया। महामारी की अवधि के दौरान केंद्र द्वारा COVID19 हेल्प डेस्क के रूप में कार्य किया गया है।
- 21 जून, 2019 को 5वें अंतर्राष्ट्रीय योग दिवस के अवसर पर, विश्वविद्यालय के व्यायामशाला का उद्घाटन माननीय कुलपति डॉ. यू० एस० गौतम द्वारा किया गया। व्यायामशाला विभिन्न उपकरणों से सुसज्जित है।
- बांदा कृषि और प्रौद्योगिकी विश्वविद्यालय, बांदा में एक गौ संरक्षण और संवर्द्धन इकाई स्थापित की गई है, जो आवारा और गैर-विवरणित मवेशियों के नस्ल सुधार तथा उनके संरक्षण के लिए कार्य करेगी।
- 2019-20 के दौरान 1874.86 लाख की केन सिंचाई परियोजना में एक महत्वपूर्ण प्रगति देखी गई है। पंप हाउस के लिए बिजली की आपूर्ति के लिए 33/0.44 केवी सबस्टेशन के लिए एचडीपीई लाइन बिछाने का कार्य पूर्ण हो चुका है। नहर के लिए परीक्षण भी सफलतापूर्वक पूरा हो गया है और तालाब नंबर 1, 2 और 3 को नहर के पानी से भर दिया गया है। इस प्रकार विकसित सुविधा द्वारा विश्वविद्यालय परिसर में लगभग 600 एकड़ और विश्वविद्यालय के आसपास के क्षेत्रों में 500 एकड़ भूमि की सिंचाई की जा सकेगी।
- विश्वविद्यालय द्वारा केंद्र सरकार के वित्तीय सहयोग से विश्वविद्यालय परिसर और केवीके में बीज हब की स्थापना के साथ उरद, मूंग, अरहर, चना और मसूर के गुणवत्ता वाले बीजों का उत्पादन, प्रसंस्करण और वितरण शुरू किया गया है। परियोजना 'भारतीय दलहन के स्वदेशी उत्पादन को बढ़ाने के लिए बीज हब का निर्माण' के अन्तर्गत भारतीय दलहन अनुसंधान संस्थान, कानपुर को नोडल एजेंसी के रूप में नामित किया गया है। 2018-19 के दौरान, उरद की विभिन्न किस्मों के कुल 256.4 कुन्तल बीज का उत्पादन किया गया था। हालांकि, खरीफ, 2018 के दौरान मूंग, अरहर और तिल का बीज क्रमशः 13.4 कुन्तल, 54.8 कुन्तल और 3 कुन्तल उत्पादित किया गया। विभिन्न दलहनी फसलों के बीज। 667.1 कुन्तल चना, 1115.9 कुन्तल मटर, 212.6 कुन्तल मसूर; अनाज की फसलों में 288.7 कुन्तल गेहूं, 7.7 कुन्तल जौ और तिलहनी फसलों में 13.0 कुन्तल अलसी और 3.0 कुन्तल सरसों का उत्पादन, रबी 2018-19 के दौरान किया गया था।
- शैक्षणिक सत्र 2019-20 के दौरान स्नातक कार्यक्रमों कृषि, बागवानी, वानिकी और गृह विज्ञान में क्रमशः कुल 126, 121, 65 और 03 छात्र-छात्राओं का नामांकन हुआ। परास्नातक कार्यक्रमों के तहत, क्रमशः कृषि महाविद्यालय और उद्यान महाविद्यालय में क्रमशः 30 और 18 छात्रों को प्रवेश दिया गया।
- विश्वविद्यालय के पाँचवें बैच (2015) के रूप में कृषि महाविद्यालय के 55 छात्र और उद्यान महाविद्यालय के 48 छात्र सत्र 2018-19 में प्रथम श्रेणी के साथ उत्तीर्ण हुए। उन्हें 03 अक्टूबर, 2019 को आयोजित पाँचवें दीक्षांत समारोह में उपाधि प्रदान की गई। प्रत्येक कॉलेज के तीन छात्रों को प्रथम, द्वितीय और तृतीय स्थान प्राप्त करने के लिए क्रमशः कुलपति स्वर्ण, रजत और कांस्य पदक से सम्मानित किया गया। इसके अलावा, इस आयोजन के दौरान कृषि महाविद्यालय और उद्यान महाविद्यालय के छात्रों को कुल 26 मेरिट प्रमाण पत्र भी वितरित किए गए। इस वर्ष विश्वविद्यालय के चार छात्रों ने पीजी अध्ययन के लिए आईसीएआर जेआरएफ परीक्षा उत्तीर्ण की। शेष छात्रों ने यूपीसीएटीईटी, केंद्रीय और राज्य विश्वविद्यालयों की प्रवेश परीक्षाएँ व अन्य प्रतियोगी परीक्षाएँ उत्तीर्ण की।
- विश्वविद्यालय सांस्कृतिक दल के रूप में 10 छात्रों ने इंदिरा गांधी कृषि विश्व विद्यालय, रायपुर में 10-12 फरवरी, 2020 को आयोजित 20वीं अखिल भारतीय कृषि विश्वविद्यालय युवा महोत्सव में भाग लिया।
- विश्वविद्यालय के 28 छात्र एथलीटों की एक टीम ने 1-5 मार्च, 2020 तक श्री वेंकटेश्वर पशु चिकित्सा विश्वविद्यालय, तिरुपति में आयोजित 20वें अखिल भारतीय अंतर कृषि विश्वविद्यालय खेलों में भाग लिया।

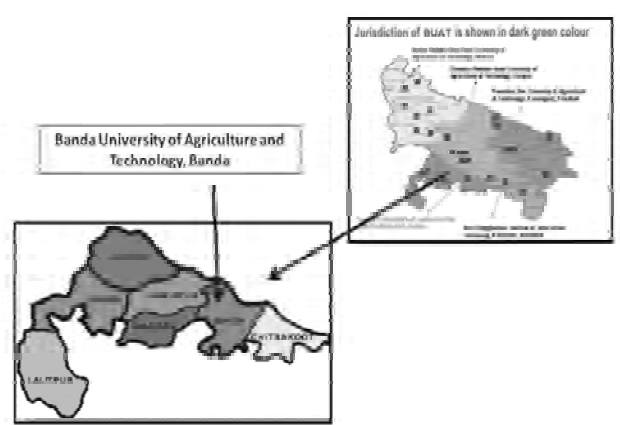
- इस वर्ष, विश्वविद्यालय के 34 संकाय सदस्यों को शिक्षण, अनुसंधान और प्रसार में उनके महत्वपूर्ण योगदान के लिए विभिन्न प्रतिष्ठित संगठनों द्वारा सम्मानित किया गया।
- वर्तमान में, विश्वविद्यालय में तीन अंतर्राष्ट्रीय शोध परियोजना, 12 अखिल भारतीय समन्वित अनुसंधान परियोजनाएं (AICRP) और 4 निजी क्षेत्र से वित्त पोषित परियोजनाओं सहित 14 अन्य परियोजनाएं चल रही हैं।
- अनुसंधान निदेशालय ने बुंदेलखंड क्षेत्र की अनुसंधान प्राथमिकताओं को अंतिम रूप देने के लिए अनुसंधान उन्मुख कार्यशालाओं और ब्रेन स्टॉर्मिंग सत्रों का आयोजन किया है।
- निदेशालय ने विश्वविद्यालय के विभिन्न क्षेत्रीय अनुसंधान स्टेशनों को भी अनुसंधान गतिविधियों को सुव्यवस्थित करने के लिए मजबूत किया है।
- CEDA परियोजना के अन्तर्गत, आणविक पादप प्रजनन प्रयोगशाला स्थापित की गई है। यह प्रयोगशाला बुंदेलखंड क्षेत्र के लिए दलहन और तिलहन फसलों की जैविक और अजैविक तनाव सहनशील व अधिक उपज वाली किस्मों के विकास के लिए प्रजनन कार्यक्रमों में तेजी लाने के लिए प्रतिबद्ध है।
- प्रसार निदेशालय ने 13 अप्रैल, 2019 को प्रसार परिषद की प्रथम बैठक का आयोजन माननीय कुलपति, डॉ. यू० एस० गौतम की अध्यक्षता में किया। इस अवसर पर डॉ. ए० के० सिंह, उपमहानिदेशक, कृषि प्रसार, आईसीएआर, नई दिल्ली, मुख्य अतिथि के रूप में उपस्थित थे।
- भारतीय कृषि अनुसंधान परिषद, नई दिल्ली द्वारा गठित क्यूआरटी सदस्यों द्वारा को बांदा कृषि और प्रौद्योगिक विश्वविद्यालय के अंतर्गत आने वाले सभी कृषि विज्ञान केंद्रों का भ्रमण 13 व 98 अप्रैल, 2019 को किया गया। इस समिति की अध्यक्षता सरदार वल्लभ भाई पटेल कृषि और प्रौद्योगिकी विश्वविद्यालय, मेरठ के पूर्व कुलपति डॉ. गया प्रसाद ने की।
- विश्वविद्यालय ने बुंदेलखंड के 100 गांवों में कृषि और ग्रामीण विकास के लिए 14 अप्रैल, 2019 को **BUAT-Kisan PRAGATI** कार्यक्रम प्रारम्भ किया।
- विश्वविद्यालय ने किसान समुदाय की सामाजिक, शैक्षणिक व कृषि समस्याओं को हल करने के लिए कृषि विज्ञान केंद्रों के माध्यम से “बुंदेली कृषि चौपाल” नामक एक विशेष पहल शुरू की है।
- उत्तर प्रदेश के बुंदेलखंड क्षेत्र के सात जिलों के कृषक समुदाय के बीच जैविक खेती को बढ़ावा देने के लिए विश्वविद्यालय द्वारा “जैविक कॉरिडोर” कार्यक्रम शुरू किया गया है।
- आईसीएआर, नई दिल्ली ने विश्वविद्यालय के शासनाधीन प्रयागराज में एक नवीन कृषि विज्ञान केन्द्र स्थापित करने के लिए संस्तुति दे दी। केवीके की स्थापना के लिए, राज्य सरकार ने प्रखंड छत्ता, प्रयागराज के बहानिया फार्म में 9.67 हेक्टेयर भूमि आवंटित की है। एमओयू और भूमि हस्तांतरण प्रक्रिया अंतिम चरण में है।
- प्रसार निदेशालय ने अपने कृषि विज्ञान केंद्रों के माध्यम से किसानों, ग्रामीण युवाओं, प्रसार कर्मियों और वैज्ञानिकों के लिए 488 प्रशिक्षण कार्यक्रम आयोजित किए। कृषि विज्ञान केंद्रों ने अपने क्षमता विकास कार्यक्रमों को 10853 किसानों, 417 ग्रामीण युवाओं और 804 विस्तार अधिकारियों तक पहुंचाया। इसके अलावा, कृषि विज्ञान केंद्रों ने अन्य एजेंसियों के 1204 लाभार्थियों के लिए 26 प्रायोजित प्रशिक्षण और 225 व्यावसायिक उद्यमियों के लिए 12 व्यावसायिक प्रशिक्षण आयोजित किए।
- किसानों के खेतों में बीज, खरपतवार नियंत्रण, आईएनएम और आईपीएम की महत्वपूर्ण तकनीकों का प्रदर्शन किया गया। कुल 369.6 हेक्टेयर क्षेत्र को 1177 किसानों के खेतों पर विभिन्न प्रदर्शन स्थापित किए गए। इसके अलावा, OFT के तहत कुल 72 तकनीकों को लिया गया था।
- अधिष्ठाता छात्र कल्याण कार्यालय ने गत वर्ष रक्तदान शिविर, पार्थेनियम जागरूकता सप्ताह, राष्ट्रीय युवा सप्ताह, विश्वविद्यालय स्थापना दिवस, आदि सहित कई सह-पाठ्यक्रम गतिविधियों का आयोजन किया।
- विश्वविद्यालय परिसर में वन महोत्सव माह के दौरान एक वृहद वृक्षारोपण कार्यक्रम का आयोजन किया गया। वानिकी महाविद्यालय ने 9 अगस्त 2019 को एवेन्सू प्लांटेशन कार्यक्रम आयोजित किया जिसका उद्घाटन माननीय कुलपति ने किया।

- माननीय मुख्यमंत्री, यूपी सरकार, श्री योगी आदित्यनाथ ने 08 दिसंबर, 2019 को पहली बार विश्वविद्यालय परिसर का दौरा किया। इस अवसर पर माननीय कुलपति, डॉ. यू० एस० गौतम, ने माननीय मुख्य मंत्री का स्वागत किया और विश्वविद्यालय की उपलब्धियों की जानकारी दी।
- विश्वविद्यालय ने संयुक्त रूप से इंडियन सोसाइटी ऑफ एक्सटेंशन एजुकेशन (ISEE), नई दिल्ली और CCS HAU, हिसार के सहयोग से “Socio-Digital Approaches for Transforming Indian Agriculture” विषय पर एक राष्ट्रीय संगोष्ठी का आयोजन किया। सेमिनार का आयोजन 20-22 नवंबर, 2019 को CCS HAU, हिसार में किया गया। संगोष्ठी में देश भर से 500 से अधिक प्रतिभागियों अपनी उपस्थिति दर्ज कराई।
- विश्वविद्यालय ने वर्ष 2019 में एक टीबी जागरूकता अभियान की शुरुआत की है जिसके अन्तर्गत विश्वविद्यालय के संकाय सदस्यों द्वारा बांदा जिले से कुल 79 टीबी रोगियों को अंगीकृत किया गया है।
- विश्वविद्यालय द्वारा मधुमक्खी पालन-एक सफल कृषि उद्यम’ विषय पर एक राज्य स्तरीय संगोष्ठी का आयोजन 25 फरवरी - 26 फरवरी, 2020 को किया गया। यह संगोष्ठी आरकेवीवाई, उत्तर प्रदेश सरकार द्वारा वित्त पोषित थी।
- 25-26 फरवरी, 2020 के दौरान विद्यार्थी कल्याण न्यास, भोपाल और बीयूएटी, बांदा द्वारा संयुक्त रूप से ग्रामीण अर्थव्यवस्था के सतत विकास के लिए जलवायु आधारित कृषि विषय पर उत्तर प्रदेश पूर्व क्षेत्र का पहला जोनल कन्वेंशन आयोजित किया गया।
- COVID 19 के प्रकोप के समय में, विश्वविद्यालय ने छात्रों और कर्मचारियों के बीच जागरूकता अभियान चलाया। परिसर में COVID 19 के प्रकोप की निगरानी के लिए एक COVID 19 हेल्प डेस्क की स्थापना की गई। विश्वविद्यालय ने समय-समय पर राज्य और केंद्र सरकार के अधिकारियों द्वारा सुझाए गए उचित दिशानिर्देशों का पालन किया।
- विश्वविद्यालय द्वारा ‘बुंदेलखंड विकास-योजना, रणनीति और दिशा’ विषय पर एक राष्ट्रीय संगोष्ठी का आयोजन, योजना विभाग, उत्तर प्रदेश सरकार के सहयोग से 10-11 जनवरी, 2020 को आयोजित किया गया। संगोष्ठी में प्राथमिक, विनिर्माण, सेवा और जल क्षेत्र के 1595 प्रतिनिधियों ने भाग लिया जिसमें वैज्ञानिक, विशेषज्ञ, नीति निर्माता, लाभार्थी, अधिकारी, बैंकर, और गैर सरकारी संगठनों के प्रतिनिधि शामिल थे। संगोष्ठी का उद्घाटन माननीय मंत्री, कृषि शिक्षा और अनुसंधान श्री सूर्य प्रताप शाही ने किया। इस अवसर पर श्री कुंवर मानवेन्द्र सिंह, अध्यक्ष, बुंदेलखंड विकास बोर्ड, डॉ. यू० एस० गौतम, माननीय कुलपति, बीयूएटी और अन्य गणमान्य अतिथि उपस्थित थे।
- कृषि प्रसार विभाग, कृषि महाविद्यालय ने 18 से 22 फरवरी, 2020 तक बकरी पालन व्यवसाय पर आधारित उद्यमिता विकास कार्यक्रम का आयोजन किया। कार्यक्रम का आयोजन आईसीएआर, नई दिल्ली की एससी-एसटी उप योजना के अन्तर्गत किया गया था।
- विश्वविद्यालय के प्लेसमेंट और काउंसलिंग सेल ने छात्रों के लिए स्टूडेंट्स-इंडस्ट्री इंटरफेस, करियर ओरिएंटेशन वर्कशॉप, पर्सनालिटी डेवलपमेंट सेशन और सॉफ्ट स्किल ऑन एंटरप्रेन्योरशिप जैसे विभिन्न कार्यक्रमों का आयोजन किया।

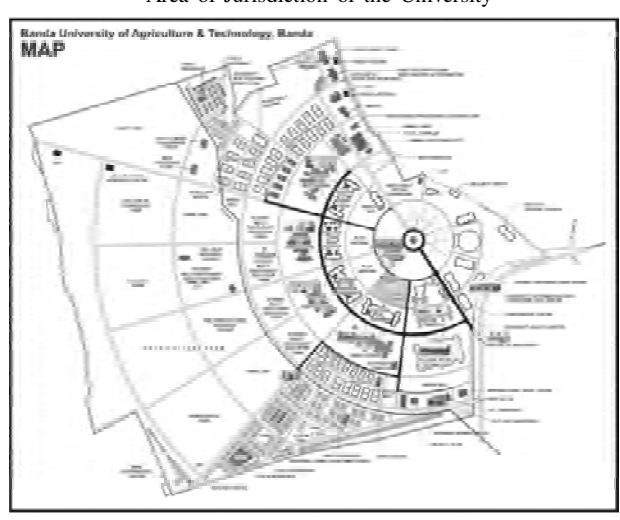
## University Portfolio

**B**anda University of Agriculture and Technology, Banda was established in the semi-arid landscape of Bundelkhand; on 2<sup>nd</sup> March, 2010 under Uttar Pradesh Agriculture University Act (revised), 1958 Gazette-Adhinyam, 2010; to address the current and emerging challenges in agriculture and allied sectors in Bundelkhand region of Uttar Pradesh. The University has jurisdiction over Banda, Chitrakoot, Mahoba, Hamirpur, Jhansi, Lalitpur, and Jalaun districts. University is committed to serve the Bundelkhand region with trinity concept, *i.e.*, complete integration of teaching, research and extension for the development of agriculture and allied sectors in order to ensure food security and enhance socio-economic status of inhabitants. The university is located on northern end of the city on Banda-Mahoba bypass, about six kilometres from Banda railway station and bus stand and spread over in 948 acre of land. Out of the 948 acres, 348-acre land is allotted for infrastructural development and remaining 600 acres is earmarked for developing research farm to conduct research and devising innovative technologies in the agriculture and allied sectors.

Eleven Colleges dealing with Agriculture, Horticulture, Forestry, Home Science, Veterinary Science & Animal Husbandry, Agriculture Engineering & Technology, Agribusiness Management, Dairy Technology, Basic Sciences & Humanities, Food Science and Fisheries have been proposed in the master plan of the University. Currently four colleges *viz.*, College of Agriculture, College of Horticulture, College of Forestry and College of Home Science are offering four-year undergraduate and two-year postgraduate degree programmes. The undergraduate degree programme *viz.*, B.Sc. (Hons) Agriculture and B.Sc. (Hons) Horticulture have been started in 2011 however, B.Sc. (Hons.) Forestry started in 2017 and B.Sc. (Hons.) Home Science has been started in 2019. The Post Graduate degree programme *viz.*, M.Sc. (Ag.) and M.Sc. (Horticulture) have been commenced since 2018. The Ph.D. Programmes in 10 disciplines, including Agronomy, Soil Science and Agricultural Chemistry, Plant Pathology, Entomology, Agricultural Extension, Genetics and Plant Breeding, Vegetable Science, Fruit Science, Post Harvest Technology, Floriculture and Landscape Architecture are also going to start in the university from the academic session 2020-21. College of Agricultural Engineering & Technology and College of Veterinary Science & Animal Husbandry are under advanced stage of construction, other colleges *i.e.*, Colleges of Food Science, Fisheries, Agribusiness Management, Dairy Technology and Basic Sciences & Humanities would be established in due course of time.



Area of Jurisdiction of the University



Master Plan of the University

Being the first Agricultural State University in the Bundelkhand region, BUAT is committed to contribute social and economic well-being of the people of Bundelkhand, Uttar Pradesh and the country through the pursuit of education, research, extension in agriculture and allied sectors. Board of Management, Academic Council, Research Council, Extension Council and Board of Studies are at the helm of affairs in the endeavor of making the University a significant and the highest seat of learning in higher education in agriculture and allied fields to realize its mandate.

### Mission

The University is committed to the cause of Indian agriculture through its quality teaching, demand-driven and location-specific research and extension programmes in the light of dynamism of socio-economic and agro-ecological conditions, management perceptions, international trade scenarios and Government policies.

### Mandate of the University

#### Teaching

- Creating human resource, particularly trained in agriculture and other allied sciences that may cater to the needs of 21<sup>st</sup> century.



- Producing scientifically and technically sound graduates with entrepreneurial skills, which can provide the employment to unemployed rural and urban youth.
- Generating technically-sound youth who can apply their acquired knowledge and skills to diversify and industrialize agriculture for the socio-economic transformation of the rural society.
- Developing of technical skills for coordinating agriculture with the industry.

### Research

- Generating innovative agricultural technologies to make Indian agriculture globally competitive.
- Applying sources of scientific interventions to the solution of the technical and practical problems of agriculture and allied aspects.
- Conducting the basic research to accelerate the progress in agriculture and allied sectors with the inputs of fundamental knowledge.
- Solving the specific agriculture related problems, being faced by farming community.
- Formulating specific package of practices for optimization of farmers' income of different holding sizes viz., large, medium, small and marginal.

### Extension

- Disseminating innovative agricultural technologies among the farmers.
- Establishing partnership with growers/farmers, entrepreneurs and other stakeholders in agriculture for mutual benefits.
- Making the location specific agricultural technologies more demand-driven.
- Facilitating validation, demonstration and adoption of appropriate agro-technologies.
- Achieving economic and environmental sustainability through integrated management of productivity, production, marketing and the end use of farm produce.

### Goals

The Government of Uttar Pradesh has assigned the responsibilities of:

- Human resource generation and development,
- Generation and perfection of technologies, and
- Appropriate technology dissemination to the farmers, orchardists and dairy farmers.

In consonance with the objectives of the University which "among others shall be to make provision for education mainly of the rural people of the state of Uttar Pradesh in agriculture in its broad sense and to promote research, field and extension programmes in agriculture and

agricultural production" the University has set for itself the following goals-

- Provide opportunities for the citizens of the state and the country for education in the field of agriculture in its broad sense and to promote research, field and extension programmes in agriculture and allied sciences.
- Establish the required infrastructure to conduct location specific research in the field of agriculture and allied sciences.
- Generate technologies to improve farm production and income of farmers.
- Provide the needed assistance to the development departments of the government and other agencies to test and disseminate the improved technologies developed.
- Provide opportunities for rural youth and women for learning and adoption of improved agro-technologies.
- Make available quality seeds to farmers in the region through focused research and extension programmes
- Revitalize the extension activities through the creation of specific infrastructure in each district.
- Adopt the advancements in information technology to improve the formal academic programmes and introduce non-formal distance and contact learning programmes for the benefit of farmers, farm women, rural youth and other stakeholders.

The University's mission and goals are, thus, clearly defined and focused on providing opportunities for higher education to the citizens, generating appropriate location-specific technologies for the benefit of the farmers, farm women, rural youth and other stakeholders and assisting them in the process of testing, fine tuning and ultimate adoption of these technologies. The University has established good infrastructure and signed MoUs with several ICAR Institutes, International Organizations, public and private sector institutes for the successful completion of the mission.

### Governance

The Vice Chancellor is principal executive and academic head of the University and *ex-officio* chairman of Board of Management and Academic Council. Board of Management and Academic Council are the apex bodies, which take decisions on administrative, financial and academic matters. The authorities such as Academic Council, Technical Cell, Board of Studies, Comptroller, Research Council, Extension Council, Sports Board and various Committees. provide necessary recommendations/suggestions to facilitate the Board of Management to take appropriate decisions. The decisions taken by these two apex bodies are translated into action by respective functional heads. Matters pertaining to financial and

budgetary aspects are channeled Dean through Comptroller whereas those concerned with general administration are channeled through Director Administration & Monitoring. At present, Deans / Associate Dean coordinate the academic activities of the University and the constituent Colleges.

The regulation in respect of academic, administration especially pertaining to the students' admission and award of degrees are communicated through Registrar of the University. The action to be initiated in research and extension activities of the University are executed through Director of Research and Director of Extension, respectively while the students' co-curricular activities are monitored through Associate Dean Student's Welfare. The Nodal Officer (ICAR) channelizes the important role in between ICAR and the University for the academic excellence. The In-charge Counselling and Placement Cell helps in arranging the jobplacement to students of the University besides their career counseling. The activities pertaining to construction of buildings, maintenance of buildings and other physical facilities are monitored through the Estate Officer and the general beautification of the campus, etc. is monitored through various committee. The Security Officer takes care

of the security of the University campus and the Librarian exercises overall control of the University Library and organize their services in a manner most beneficial to the needs of teaching, research and extension programmes of the University.

### Authorities of the University

#### Board of Management (BOM)

The University is guided by a Board of Management, which is the policy making body and also responsible for the management of the University. The Vice Chancellor is the Chairman of the Board. The associated members including Principal Secretary, Agriculture Education and Research Department; Secretary, Higher Education; Principal Secretary, Finance; Director, Agriculture; Director, Animal Husbandry; one representative nominated by the Director General of Indian Council of Agricultural Research; two Members of Legislative Assembly (MLAs) of the state and two Members of Legislative Council (MLCs) of the state; two agricultural scientists having background of agricultural research or education; a progressive farmer; one women social worker; one agriculture industrialist.

**Table 1: Details of the meetings of Board of Management**

20 <sup>th</sup> Meeting	June 13 <sup>th</sup> , 2019
21 <sup>st</sup> Meeting	September 26 <sup>th</sup> , 2019

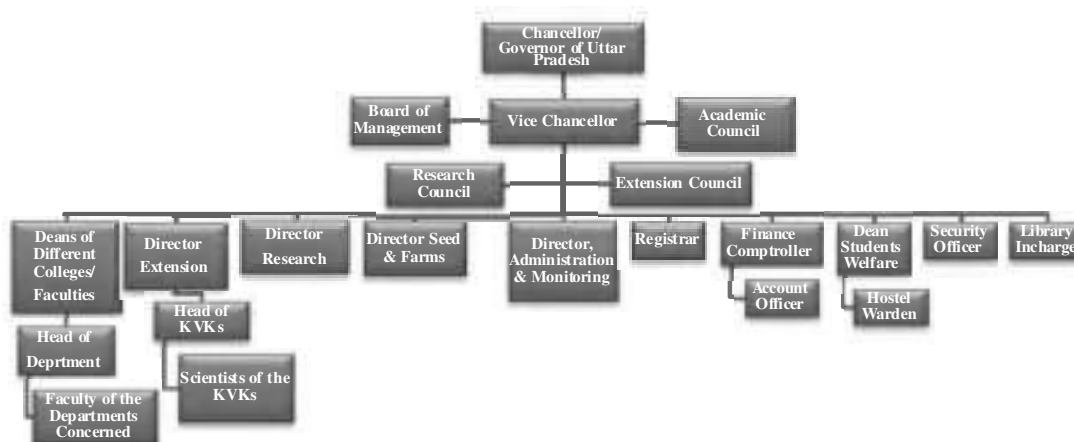


20<sup>th</sup> Meeting of Board of Management



21<sup>st</sup> Meeting of Board of Management

### Organogram of the University



## Academic Council

During the year 2019-20, three meetings of academic Council were organized. The details of the Academic Council are as follows:

**Table 2: Details of meetings of Academic council**

<b>15<sup>th</sup> Meeting</b>	June 12 <sup>th</sup> , 2019
<b>16<sup>th</sup> Meeting</b>	September 17 <sup>th</sup> , 2019
<b>17<sup>th</sup> Meeting</b>	January 21 <sup>st</sup> , 2020



Academic Council Meeting under Chairmanship of Hon'ble Vice Chancellor

## Faculty

The University has highly qualified and competent faculty of 72 members at present including 1 Dean, 3

Professors, 18 Associate Professors and 50 Assistant Professors in its constituent colleges. The college wise faculty strength has been depicted in Table 3.

**Table 3: Faculty strength of the University**

Sl. No	Name of the College	Name of the Post	Sanctioned	Filled	Vacant
1	College of Agriculture	Professor	2	2	-
		Associate Professor	15	12	3
		Assistant Professor	27	24	3
		<b>Sub Total</b>	<b>44</b>	<b>38</b>	<b>6</b>
2	College of Horticulture	Dean	1	1	-
		Professor	5	1	4
		Associate Professor	7	5	2
		Assistant Professor	20	12	8
		<b>Sub Total</b>	<b>33</b>	<b>19</b>	<b>14</b>
3	College of Forestry	Dean	1	-	1
		Professor	3	-	3
		Associate Professor	8	1	7
		Assistant Professor	16	14	2
		<b>Sub Total</b>	<b>28</b>	<b>15</b>	<b>12</b>
		<b>Grand Total</b>	<b>105</b>	<b>72</b>	<b>33</b>

### Non Teaching Staff (Service Personnel)

The non-teaching staff provides necessary support for teaching, academic, research, extension, administrative and accounts matters for smooth implementation of all the

activities of the University. At present University have 08 regular non-teaching employees, 01 officer *i.e.*, Comptroller from U.P. government on deputation and 25 outsourcing employees of different cadres.

**Table 4: Non Teaching Staff of the University**

Name of the Unit	Name of the Post	Sanctioned	Filled	Vacant
<b>A. Administrative Non Teaching Posts on Deputation</b>				
Registrar Office	Registrar	1	-	1
Registrar Office	Deputy Registrar	1	-	1
Comptroller Office	Comptroller	1	1	-
	<b>Total</b>	<b>3</b>	<b>1</b>	<b>2</b>
<b>B. Regular Non Teaching Posts</b>				
Vice Chancellor Office	Ashulipik	1	1	0
Registrar Office	Ashulipik	1	1	0
Comptroller Office	Assistant Account Officer	1	1	-
Comptroller Office	Assistant Accountant	1	-	1
Pool System Personnel	Junior Assistant	2	2	0
Other	Senior Lab Assistant	1	1	0
	Lab Assistant	2	2	0
	<b>Total</b>	<b>9</b>	<b>8</b>	<b>1</b>
<b>C. Outsourcing Posts</b>				
PA		1	1	-
Stenographer		1	1	-
Junior Clerk cum Computer Operator		8	8	-
Junior Clerk		1	1	-
Horticulture Inspector		1	1	-
Mali		4	4	-
Peon		8	8	-
Driver		1	1	-
	<b>Total</b>	<b>25</b>	<b>25</b>	<b>-</b>
	<b>Grand Total</b>	<b>37</b>	<b>34</b>	<b>3</b>

### University Budget

The University gets funds from State Government, ICAR and other agencies for carrying out of education, research and extension programmes. The Comptroller is

custodian of the finances of the University. The University obtained financial assistance from ICAR for the first time during 2016-17. The budget head of the university during is elaborated in following.

**Table 5: University budget during 2019-20 (Rs. in lakhs)**

Budget Heads	Funding from State Government	Total ICAR support	Any Other central funding	Total Funding form RKVY Project	Grand Total
Salary	1080.22	843.30	0.00	0.00	1923.52
Capital	100.00	146.09	0.00	515.00	761.09
Revenue	0.00	205.66	17.30	79.30	302.26
<b>Total</b>	<b>1180.22</b>	<b>1195.05</b>	<b>17.30</b>	<b>594.30</b>	<b>2986.87</b>



## Infrastructure and Amenities

The University campus is in the development phase. Several college buildings, residences for staff, hostels, administrative building, sport complex etc. have been completed during the period under report as per Master Plan of the University.

### College Buildings

Three colleges viz., Agriculture, Horticulture, Forestry and Home Science are implementing Under Graduate programme, however, the Colleges of Agriculture and Horticulture are also engaged in Post Graduation studies. The construction of College of Veterinary and Animal Husbandry (CoVSc & AH) building has been completed and initial batch will start for their degree programme in B.V.Sc. & A.H. after approval of VCI. Owing to lack of budget allotment for the construction of College building of Agricultural Engineering and Technology (CoAE&T), it could not yet be completed.

Each college is equipped with Dean's Office with attached PA & Steno Room, Main Office for employees, Visitors' Room, Computer rooms, Pantry Room and spacious Committee Room. In addition to these, a Counseling Hall along with Account office, HoD Offices, Departmental Office, Pantry room and stores for each department, Individual Faculty Rooms, Staff Rooms, a Multipurpose Hall and a Conference Room, Rooms for Lab Technicians and Lab Assistants etc., Store Rooms and a Canteen.

### Classrooms and Laboratories

Each college is provided with sufficient number of classrooms for UG and PG teaching separately including UG Lecture Hall, Instruction Rooms, Undergraduate Teaching Laboratories and Postgraduate Laboratories. Seminar rooms and Committee rooms are also available at department level in each college. In addition to well-furnished classrooms, there are smart classrooms too in each college equipped with LCD projector, computer with power back-up. Internet connectivity in each smart class room is yet to start.

### Library and Other Learning Resources

The library is one of the most important centres of the University, which strengthen the teaching, research and extension programmes through knowledge bank. Both the faculty and students extensively use this facility. ARIS cell cum multimedia hall has already established in the Central Library. The library has a Multimedia Cell equipped with twelve computers with good internet connectivity. Library has also got the acquisition to online e-journals, J-GATE (Agriculture & Biological Sciences) and subscribed 32 e-books on perpetual basis. This facility is available for the students and faculty members to access the desired information.

Central Library of BUAT Banda is fully Air-conditioned and has one RO cum chiller for providing clean drinking water to the students and staff visiting library. Facility of photocopying and printing is available in the library through one Xerox cum printing machine and two printers.



A total of 874 print books have been purchased in the year 2019-20 making the total number of print books to 9521. Digitization of the Central Library is in progress.

**Table 6: List of holdings in the Central Library**

S. No.	Type of material	Total no.
1	Text Books	9521
2	Manuals	77
3	e-books	32
4	Print Journals (paid and free)	226
5	Magazines (regular)	17
6	Daily News Papers	05
7	Others (Annual reports, periodicals etc.)	442

### Internet and other Information Services

- **Internet browsing**  
12 computers with internet facility at free of cost
- **E-books**  
[www.eboox.in](http://www.eboox.in)
- **Institutional repository of NARS (Online thesis, journals etc.)**  
[krishikosh.egranth.ac.in](http://krishikosh.egranth.ac.in)
- **IDEAL-University Library OPAC (online access to the libraries)**  
[baut.ideal.egranth.ac.in](http://baut.ideal.egranth.ac.in)

### Establishment of Media & IT Cell

Banda University of Agriculture and Technology, Banda has established Media & IT Cell at College of Agriculture premises. The cell was inaugurated by Dr. U. S. Gautam, Hon'ble Vice Chancellor, BUAT, Banda on 19<sup>th</sup> July 2019. The main aim to establish Media & IT cell is to provide various information and services related to agriculture and allied sector to the farming community of the Bundelkhand region. To achieve this aim, Media and IT cell is on its way to inform, educate, enlighten and enrich the scientific knowledge of farmers and other stakeholders of the region through different means of ICTs. After its establishment, the Cell created the official pages and channels of the university on different platforms like Facebook, YouTube and Twitter, etc. Information and events pertaining to the university are being delivered to the vast audience through mass media and social media platforms by the Media & IT cell.

### IT Infrastructure Development

Media and IT cell achieved one of the milestones by establishing internet connectivity in the College of Agriculture through leased line provided by BSNL, Banda. The Cell has established a server room in the college building for providing internet facility through WiFi to all the faculties, students and staff members. The Cell is also providing internet connectivity to the University library. Now, the faculties and students of the university are not only able to use internet for their online activities (educational, research etc.) but also they can access online resources like e-journal, e-book subscribed by the university library from anywhere inside the campus.



### Residential buildings

Vice Chancellor's residence equipped with modern amenities. Two units of Type IV residential buildings for university employees, each has six flats. In addition, one unit of Type III comprised 12 flats and Teacher's Hostel having 24 single rooms and 12 suits.

### Hostels

Currently five boy's hostels are being used to provide accommodation for the students. Each hostel has the capacity to accommodate 120 students. All the hostels are

spacious and equipped with modern facilities. The Hostel messes are running on cooperative basis by the students. The construction work of a new PG hostel is under process. The hostel, with the capacity of 50 rooms is funded by Mandi Parishad, Uttar Pradesh costing Rs. 473.98 lakh. This new hostel will be started from the next academic session.

**Table 7: Availability of Rooms and Students Housed in Hostels**

Hostel	No. of Rooms	Students Accommodation Capacity
Hostel No. 1	53	120
Hostel No. 2	53	120
Hostel No. 3	53	120
Hostel No. 4	53	120
Hostel No. 5	53	120

### Agro-meteorological observatory

Weather has a direct and indirect effect on crop production. In this context, the regular observation of weather is essential to investigate the relationship between crop and weather precisely and quantitatively. Recording the weather phenomena is essential to know the exact relation between climate of a region and the kinds of plants. Considering the importance of weather and climate, an observatory has already established and it is equipped with all necessary instruments. Presently, a crop weather advisory group has been constituted by experts of different fields of specialization and this group releases the advisory to the farmers on the basis of concurrent weather parameters.

### Gramin Krishi Mausam Sewa (GKMS) Project

The project was sanctioned vide letter No. NMRF/17/068/97 dated 21.03.1997 of the Department of Science and Technology, Govt. of India, New Delhi. Currently 100 % funded by the Ministry of Earth Science, Govt. of India IMD, Mausam Bhavan, Lodhi Road, New Delhi). The project was started at Regional Agricultural Research Station, Bharari, Jhansi (under jurisdiction of CSAUAT, Kanpur) on 27 February, 1999. Now the project has been transferred to BUAT, Banda. Previously it was known as Experimental Agromet Advisory Service (1997- 2000) and renamed as Integrated Agromet Advisory Services from 2001 to 2008. Since 2008, it has been working as Gramin Krishi Mausam Sewa. The project is working with following specific objectives:

1. To transmit observed weather data to Meteorological Centre, Lucknow and India Meteorological Department, Pune on prescribed format.
2. To generate district level GKMS bulletin biweekly for the six districts of Bundelkhand Zone of U.P. namely, Jhansi, Jalaun, Lalitpur, Mahoba, Banda and Hamirpur with the help of experts of various disciplines based on 05 days medium range weather forecast received from IMD and send it to the Agrimet Division, IMD, Pune for uploading on website [imdagrmet.gov.in](http://imdagrmet.gov.in).

3. To disseminate GKMS bulletin by mass media through news papers, All India Radio and extension agencies.
4. To collect feedback from the farmers to assess the validity of the weather forecast and agromet advisory bulletins.
5. Organization of Farmers awareness program.

### Vermi-compost unit

The growing demand of organic farming requires the production of organic inputs at farm level. In this series, a vermi-compost unit was already established for the production of vermi-compost and multiplication of earthworms. During the period under report, the portable compost pits were provided to each hostel to produce vermicompost on regular basis by hostel inmates. The produced vermicompost will be used during plantation drives inside the university campus.



### Apiculture unit

An apiary has established to demonstrate beekeeping among students and farmers as well as to tap the potentialities of beekeeping in Bundelkhand region. Research projects related to beekeeping and allied sectors are running under the Department of Entomology, CoA. The laboratory for conducting fundamental and applied researches on apiculture has been developed in the Department of Entomology.



### Development of Bee pasture

As per Bee floral calendar and according to floral dearth, a scientific bee pasture is a key to successful

beekeeping and to avoid the migratory beekeeping. In view of this fact, the university has envisaged to develop a bee pasture as per floral dearth of this region. The university has allotted 8 acres of land to the AICRP (Honey Bees & Pollinators) for the development of bee pasture to fulfil the food requirement of honeybees for their survival during floral dearth and to increase the beehive productivity. The AICRP (Honey Bees & Pollinators) centre and College of Forestry have developed a bee pasture at 6 acres of area with variety of nectar and pollen producing plants viz. *Moringa oleifera*, *Peltophorum* sp., Arjun, Karanj, *Morus* sp., Mango, and *Cassia siamiae*.



### Mushroom production unit

Mushroom laboratory has established under experiential learning programme to develop the entrepreneurial skills of spawn and mushroom production among students and farmers of Bundelkhand region in the Department of Plant Pathology, CoA.

### Water & Electricity

The university has well established 33/11 KVA Electricity Substation for regular supply of electricity. The university has also a central R.O. plant with 10000 liters storage capacity for supply of drinking water. The pipe line of drinking water was well connected from the RO plant to the students' hostels.

### Solar Power Plant System

BUAT campus follows the green energy concept to meet out the climatic challenge in power sector and ecological perspective. Different instruments viz., solar street lights and solar pumps etc. operated through solar system have currently installed to tap the solar energy in the campus and in the centers at out campus. A solar power plant with the capacity to produce 652 kw electricity has been installed by Clean Max Pvt. Ltd., Mumbai on the rooftop of the buildings of different colleges and administrative building and this system was inaugurated by the Hon'ble Governor Shri Ram Naik on 26<sup>th</sup> September, 2018. Four solar pumps of 2 hp capacity were purchased from UPNEDA, Banda and installed at the university campus and KVVs (Jhansi and Mahoba). In addition, 150 street lights were also purchased from UPNEDA, Banda and installed at the campus and KVVs (Jhansi, lalipur, Mahoba, Jalaun and Hamipur).

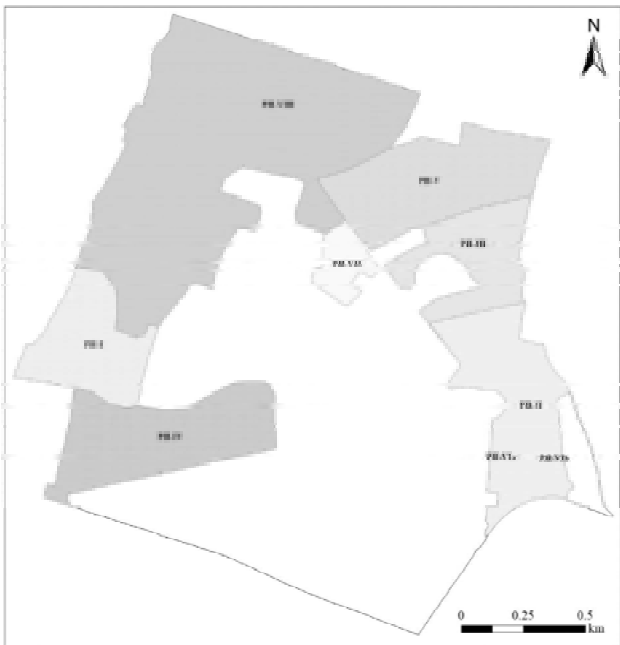


### University Farm Development

The University Farm Development Committee developed a total of 199.96 ha of area by cleaning and removal of minor undulations and made the land suitable for agriculture purpose. Post graduate research block, seed production blocks of cereals, millets, vegetables, flower production, MAPs block, fodder block, dairy unit, apiculture unit, zero budget agriculture field, organic farming block and goatry unit were established in the developed land. Besides this, rain water harvesting structure were also developed by the committee.



Phase-wise Land Development Works



**Table 8: Phase wise land development**

Development Phase	Location	Area (ha)	Land use
Phase-I	Extreme west portion adjoining to boundary	17.42	• Agriculture, horticulture and forestry trials
Phase-II	In front of Admin block	25.17	
Phase-III	In front of Veterinary College building and adjoining area	15.22	• Horticulture Plantation, IFS model, forestry plantation, Protected cultivation, Apiculture, Organic farming block, Zero Budget farming block
Phase-IV	Behind Horticulture student Education Farm up to boundary	25.90	
Phase-V	Behind veterinary building and near boys hostels	25.82	• Horticulture plantation
Phase-VI	Pond digging IFS, Apiculture and shaping of pond at near stadium	0.038	
Phase-VII	Behind Agriculture college near observatory	5.11	• Horticulture plantation
Phase-VIII	Behind Hostel up to pond 3 and pond 4	85.28	
<b>Total Area</b>		<b>199.96</b>	

### Strengthening of fundamental infrastructures at RARS, Mauranipur

Hon'ble Vice-Chancellor, Dr. U.S. Gautam inaugurated the main gate and renovation works at Crop Research Farm, Mauranipur, Jhansi on June 28, 2019. All Indian Coordinated Research Projects on Linseed and Sesame are being implemented at this centre. In view to develop need based infrastructure and to make the centre presentable, the main gate, office building, store and borewell were renovated. On this occasion, Hon'ble Vice Chancellor also graced Farmers-Scientist Interaction Session as Chief Guest. While addressing the participating farmers, he asked them to come forward for adoption of resource conservation technologies in agriculture like, micro irrigation, mechanization, organic farming of important commodities. Hon'ble Vice Chancellor also visited Crop Research Farm, Gursarai, RARS and KVK, Belatal, RARS and KVK, Bharari, Jhansi.

### Establishment of Natural Farming, Organic Farming and Integrated Crop Management Units

The university has planned to establish the research and demonstration units for Natural Farming, Organic Farming and Integrated Crop Management in the area of 2.50 ha. The main objective of developing these units is to explore the potential of natural, organic and integrated crop management practices for Bundelkhand region. The natural farming unit will be based on the principles of *Jivamrita*, *Bijamrita*, *Waapsa* (moisture) and *Acchadana* (mulching). Organic farming unit will follow the principles of utilizing various organic sources for crop nutrition and protection. However, Integrated Crop Management will include all the possible balanced combinations of organic and inorganic sources for crop nutrition and protection. During the reported period, the land has been demarcated and development work has been started.



## Horticulture farm Development

Four orchards were already developed in different blocks under the Department of Fruit Science. The plantations of kinnow (*C. deliciosa*), sweet orange (*Citrus sinensis*), lime, lemon (*Citrus limon*), moringa (*Moringa olefera*), pomegranate (*Punica granatum*), aonla (*Embllica officinalis*) and phalsa (*Grewia subinequalis*), dragon fruit (*Hylocereus undatus*), lime, lemon, fig (*Ficus carica*), and karonda (*Carissa carandas*), chirongi, jamun (*Scizium cumini*), guava (*Psidium guvajava*), mango (*Mangifera indica*), mahua (*Madhuca longifolia*), tamarind (*Tamarindus indica*), custard apple, ber (*Ziziphus mauritiana*), bael (*Aegle marmelos*), manila tamarind (*Pthecellobium dulce*) and khirni (*Manikara hexandra*) were done in an area of 2.42 ha.

Fruit nursery has also started behind the College of Horticulture building. Nursery has been established and the plants produced in the nursery are being utilized for plantation as main crop, hedge row, filler plants in the orchard and for propagation of collected material. Commercial propagation of vegetative propagated plants will be started after completion of juvenility in newly established mother progeny plants.

### Establishment of Protected structures

Banda University of Agriculture and Technology (BUAT), Bandahas established 6 different protected structures such as natural ventilated polyhouse, insect-proof net house, green shade net and mist chamber with hardening chamber under the project “Centre of Excellence on Dryland Agriculture” in July 2019 for cultivation of high value vegetable crops. The University organized trainings, conducted field day on low cost protected cultivation, and made awareness among farmers to adopt low cost protected cultivation technology at his field.

### Establishment of different Blocks under Department of Floriculture and Landscape Architecture

The department has established shrubbery block, crop cafeteria, Bougainvillea and Medicinal Block at Instructional Floriculture Farm. In the nursery area, multiplication of ornamental/MAP plants (Bougainvillea (50 varieties), Kaner, Duranta, Clerodendron, Chandni, *Aloe vera*, Lemon grass, periwinkle, Damask rose etc.) through vegetative propagation is done. Palmatum was also established near the nursery area for identification purpose to the UG and PG students.

### Ken irrigation project

A project is operational with the help of state government to lift the water from Ken river for irrigation of the fields of university campus. Total budget of this project is Rs. 1874.86 lakh and the fund released was Rs. 1425 lakh. After releasing of funds, the land acquisition for head works

has been completed and the same for laying of HDPE line for conveyance is in progress. The installation of 33/ 0.44 kV substation has been completed for supply of electricity for pump house. The construction of staff quarters, store room, fencing & hand-pump, erection of barge and installation of crab winch are completed. Earth work for slope structure including excavation and maintaining of slope is completed. Procurement of pipes for lifting on head and distribution in BUAT campus has completed. The trial for canal has also been completed successfully and Pond No. 1, 2 & 3 are being filled with canal water. The developed facility can irrigate about 600 acres of land in University campus and 500 acres land in adjoining areas of the university.

### Beautification of University main gate

Some developmental works including protection of side slope at front portion, retaining walls at both sides, protected landscape area, grill and tile fixing over walls were completed. This has not only beautified the front portion of University main gate but also protected it from damage caused by soil erosion. The total cost of all the work was about Rs. 10 lakh.

### Construction of Agri-Produce Selling Point

An Agri-Produce Selling Point was constructed along with an approach gate towards eastern direction of the University. This point will cater a single window for sale of university produce. As the newly constructed gate is near to highway and adjoining villages, it will provide easy access to the farmers and other visitors.

### Construction of Helipad

One helipad with dimensions of 20 x 20 m has been constructed in between the Administrative Building and College of Forestry. The developed facility is being utilized for safe landing of VIPs.

### Construction of Tubewells for Irrigation

Two tube-wells have been installed for ensuring regular supply of irrigation water to students' education farm of Horticulture and research block behind convenience center. The quality of water of both the tube-wells is good and found suitable for irrigation. The tubewells are providing irrigation water for about 15 ha of land.

### Seed Hub: A step toward sustainability in pulses seed in Bundelkhand

The Bundelkhand is known as bowl of pulses having total area of 12.25 lakh ha with average productivity of 437 kg/ha, which is lowest in compare to state's average yield. Considering the importance of improving productivity and quality seeds, The university has started the production, processing and distribution of quality seeds of urd, moong, pigeonpea, chickpea and lentil to the farmers with the establishment of seed hub at the university campus and 4

KVKs (Mahoba, Hamirpur, Jalaun and Lalitpur). The seed production of pulses is being taken at both farm and farmers field as participatory seed production programme in all the season of the year.

### Farm Ponds

“Farm Pond Scheme” was launched by Govt. of U.P. to mitigate the effect of drought in the Bundelkhand region of U.P. The funding for the same was provided under Rashtriya Krishi Vikas Yojana (RKVY). The farm ponds of 22×20×3.5-4.5m dimension helped to recharge the underground water and also catered the need of irrigation at university farms. The expansion of the development of agricultural farm was also possible with the help of available water from these ponds. Pisciculture practice has also been started in farm ponds.

### Cattle Conservation and Augmentation Unit

In Bundelkhand, indigenous cattle (cows and bullocks) account for the largest proportion of animals followed by goats and buffaloes but Bundelkhand's cattle population is more of a liability than an asset because of poor milk production. Livestock sector in this area is characterized by high population of unproductive cattle, indigenous milch animals with low productivity, ineffective input delivery mechanism, traditional milk marketing systems and lack of sufficient and quality feed resources. Due to frequent droughts resulting in crop failure, farmers find it hard to maintain animals and let them loose to feed for themselves. Large number of animals mainly, cows/ male/ female calves and scrub bulls create menace in the farmers' fields leading to crop failure. In this view, a Cattle Conservation and Augmentation Unit has been established in the University with the objectives of domestication, conservation and breed improvement of stray and non-descript cattle.

### Cafeteria

A modern Cafeteria has already been established in a large Hall with a capacity of 300 on the ground floor of the building of College of Agriculture. Sanitation and food quality is regularly monitored by the Committee of faculty members and students.

### Medical Facilities

A Small four-bed Health Clinic has already been established in the building for providing health services to the students, employees and officers of the University under the supervision of a part time Medical Officer. Health camps were also organized by the office of Dean Students' Welfare to check the health status of the students and staff of the university.

### Sports Stadium

A stadium has already been developed for the sports activities. Students play different games under the supervision of trained faculties. Furthermore, amenities required for various sports activities have also strengthened during the period under report.



### Gymnasium

On the occasion of 5<sup>th</sup> International Yoga Day on June 21<sup>st</sup> 2019, the gymnasium of the university was inaugurated by Dr. U. S. Gautam, Hon'ble Vice Chancellor. Different tools of gym including weightlifting and many others are well equipped in the gymnasium. In addition, indoor games e.g., table tennis, carom, chess can also be played in another section. The students and faculty members will be benefitted by these additional amenities in maintaining their fitness.



### Convenience Centre

The various articles e.g., fooding, clothing, stationary etc. are required by the students and faculty members in daily life. To meet out these demands, a convenience centre has been established inside the university campus. A number of shops, related to different articles have opened to facilitate the hostel inmates and staff members.



## Bank

Punjab National Bank has been established to facilitate the banking related activities inside the university campus. An ATM has also opened in the premises of Bank.

## Integrated Farming System Model

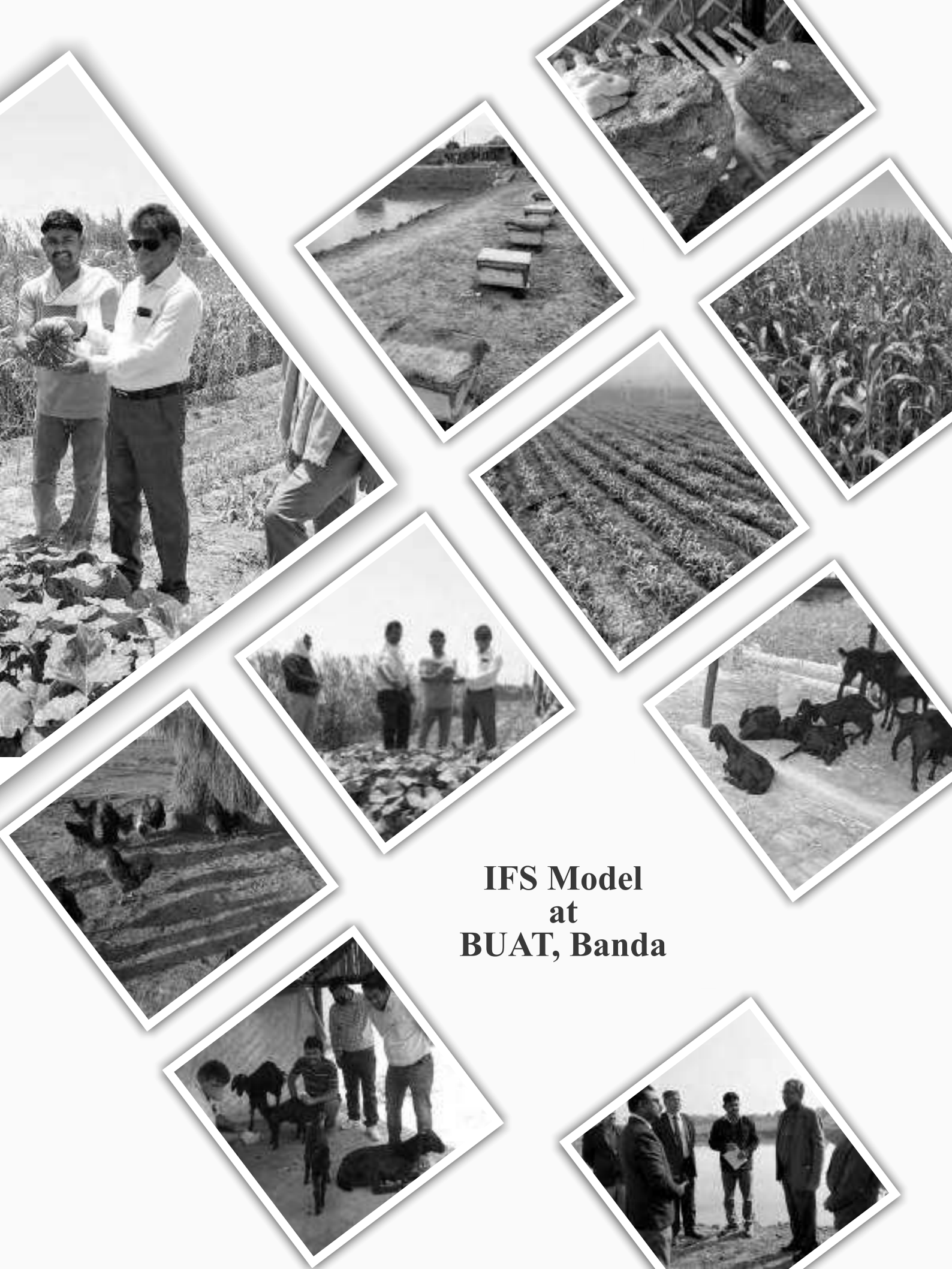
The work of establishment of Integrated Farming System (IFS) Unit was initiated from the month of April-2019. One hectare area was demarcated and developed by removing spiny trees-bushes and land leveling. Various dryland specific components viz. cropping system, orchards, vegetables, flowers, fodder crops along with pond fishery, poultry, duck, mushroom, goat, vermicompost and NADEP compost, cattle, etc. were initiated to achieve the highest resource use efficiency, recycling of waste and higher productivity and profitability. Low cost structures for various units addressing the low investment capacity of the farmers of Bundelkhand region are the main attraction of IFS Unit. Chickpea, mustard and rapeseed, fodder sorghum, berseem, guinea grass, napier, muskmelon, pumpkin, marigold, okra, maize, citrus family fruit crops and ber, guava, custard apple observed as the crops of higher sustainability in the IFS unit. *Bundelkhandi* breed of goat, *Khaki Campbell* duck and *Nagendra* poultry units were performed better under the dryland conditions of

Bundelkhand region. Various distinguished dignitaries have visited to the IFS unit viz. Shri Surya Pratap Shahi (Hon'ble Minister -Agriculture, Agriculture Education and Agriculture Research, Govt. of U.P.), Dr. K.V.Raju (Economic advisor of Govt. of U.P.), Dr. Mangala Rai (Ex. Secretary - DARE and Director General-ICAR, New Delhi), Dr. Bijendra Singh (Hon'ble Vice Chancellor, NDUAT, Kumarganj and DG - UPCAR), Dr. A.S. Panwar (Director – ICAR-IIFSR, Meerut). All the dignitaries have appreciated the work done in IFS unit and also gave the valuable suggestions for improvement and dissemination of IFS among farmers of the Bundelkhand region.

## Farm Mechanization

The University has different types of agricultural machineries for farm development work, research trials, practical crop production for students etc. in the University in a mechanized way to save time, labour and other agricultural inputs. The timeliness of operations has assumed greater significance in obtaining optimal yields from different crops, which has been possible by way of mechanization. Lot of women friendly technologies such as serrated sickle, grain cleaner cum grader, maize sheller, twin wheel hoe weeder etc. developed by the State Agricultural Universities and ICAR Institutes are using in the University.





**IFS Model  
at  
BUAT, Banda**



Tractor drawn disc plough

Tractor drawn bund former

Laser Guided Land Leveler

Tractor with cultivator

Multicrop raised bed planter

Tractor drawn Auger digger

92 hp. 3DX, JCB machine for farm development

Tractor drawn disc harrow

# Different farm implements at BUAT, Banda

## College of Agriculture



The College has been started to provide impetus to agricultural development in the region and upliftment of rural people in Bundelkhand region. The College started undergraduate programme B.Sc. (Hons) Agriculture in 2011. The PG programmes in various disciplines of agriculture will be started from the session 2018-19. Earlier, the Faculty of College comprised of only 11 academic staff consisting of 03 Associate Professors and 08 Assistant Professors, however, after the successful completion of the process for recruitment of additional and the vacant posts, now the faculty strength has risen upto 38 including 02 Professors, 12 Associate Professors and 24 Assistant Professors. The Faculty has also been involved in various extension activities. The research activities have also been initiated by the Faculty members. The Voluntary Centres of AICRP on Pigeonpea, Chickpea, Sesamum, Linseed, MULLaRP, Rapeseed and Mustard, Honeybees and Pollinators and Maize are currently running in CoA. However, the proposals for various other Voluntary Centres of AICRP have also been communicated to their respective headquarters for the consideration. In addition, several projects on different aspects have been formulated under RKVY and UPCAR and submitted to the competent authority for the approval. Four batches of B.Sc. (Hons) Agriculture students have passed out, so far, from the College and one batch have been passed out during the period under report.

The College provides excellent academic environment for developing the practical skills among students through well furnishing laboratory facilities. The practical manuals of different courses have been prepared by Faculty members, which are very useful to the students. Students Education Farm has been developed for practical training of the crop production technologies and other field operations. Students also participate in cultural, literary, sports and NCC/ NSS activities which help in their all round development.

The construction work of College building was completed in 2011. The College building has been constructed by considering future demands and comprises of Dean's chamber with attached WC, PA & Steno Room, Main Office for employees, Visitors' Room, Pantry Room, a spacious Committee Room, Counseling Hall along with offices/ rooms and Fee Collection Counters, Lecture Rooms

(4) each with a sitting capacity of 80 students, Lecture/ Instruction Rooms (18) each with a sitting capacity of 35 students, Teaching Laboratories (13), PG Teaching/ Research Laboratories (25), HOD Chambers (10) with attached WC, Steno Room, Departmental Office, Pantry room and Store for each department, individual Faculty Rooms (64), Departmental Staff Meeting Rooms (11), Large Halls (2) with a capacity of 250 students, rooms for Research Fellows and Technicians (14), Computer Labs (2), Canteen (1), Garages for tractors and farm machinery (2).

### Degree Programme

The College has been offering undergraduate degree programme *i.e.*, B.Sc. (Hons.) Agriculture since 2011 and postgraduate programmes with 7 specializations have also been started in the College from the academic session 2018-19.

**Table 9: Students enrollment in UG Degree Programme in the academic session 2019-20**

Degree Programme	Intake Capacity (University + ICAR)	Actual Enrollment
B.Sc. (Hons.) Agriculture	134	126

**Table 10: Students enrollment in PG Degree Programmes in the academic session 2019-20**

Degree Programme	Intake Capacity (University + ICAR)	Actual Enrollment
M.Sc. (Ag.) Agronomy	06	06
M.Sc. (Ag.) Soil Science and Agricultural Chemistry	05	02
M.Sc. (Ag.) Plant Pathology	05	04
M.Sc. (Ag.) Entomology	05	05
M.Sc. (Ag.) Genetics and Plant Breeding	06	05
M.Sc. (Ag.) Agricultural Economics	05	03
M.Sc. (Ag.) Agricultural Extension	05	05

### Meetings of Board of Studies

The Board of Studies (BoS) was constituted in College of Agriculture vide letter No. 471/BUAT/reg/2016 dated 07/09/2016 and has been restructured as per ICAR guidelines. The major recommendations of the BOS of the College are as follows:

## 9<sup>th</sup> Meeting of Board of Studies 17/01/2020

### Major Recommendations

1. Initiation of Ph.D. programme in 6 disciplines namely Agronomy, Soil Science & Ag. Chemistry, Entomology, Plant Pathology, Agricultural Extension and Genetics & Plant Breeding in College.
2. Initiation of PhD programme with two seats for six discipline.
3. Budgetary provision for conducting thesis research trials of MSc Ag and PhD programme, in term of inputs like manpower, vehicle for survey, fertilizer, field and lab consumables etc. As per based on ICAR trials cost Rs 20000/student/year.
4. Establishment of extra smart class facilities for 6 PhD programme.
5. Utilization of MoU signed ICAR/other institutes for development of better quality of education and imparting training/ exposures.
6. Development of separate well equipped research farm for conducting thesis research trials of PG/PhD students of different departments.
7. Provision of at least two manpower in all PG departments for taking care of labs/trials/farms for effective working.

### Faculty Positions

#### Department wise strength of faculty members

Sl. No	Department	Professor			Associate Professor			Assistant Professor			Total		
		S*	F*	V*	S*	F*	V*	S*	F*	V*	S*	F*	V*
1	Agronomy	1	1	-	3	3	-	4	4	-	8	8	-
2	Genetics and Plant Breeding	1	1	-	3	1	2	3	3	-	7	5	2
3	Soil Science & Agricultural Chemistry	-	-	-	2	2	-	3	3	-	5	5	-
4	Entomology	-	-	-	3	3	-	3	2	1	6	5	1
5	Agricultural Economics	-	-	-	1	-	1	2	1	1	3	1	2
6	Agriculture Engineering	-	-	-	-	-	-	1	1	-	1	1	-
7	Plant Pathology	-	-	-	2	2	-	3	3	-	5	5	-
8	Agricultural Extension	-	-	-	1	1	-	4	3	1	5	4	1
9	Crop Physiology	-	-	-	-	-	-	1	1	-	1	1	-
10	Statistics & Computer Science	-	-	-	-	-	-	2	2	-	2	2	-
11	LPM	-	-	-	-	-	-	1	1	-	1	1	-
	<b>Total</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>14</b>	<b>12</b>	<b>2</b>	<b>27</b>	<b>24</b>	<b>3</b>	<b>43</b>	<b>38</b>	<b>5</b>

\*S= Sanctioned

\*F= Filled

\*V= Vacant

## Students Achievement

Total 55 students of the fifth batch (2015) of B.Sc. (Hons.) Agriculture passed with the first division in the session 2018-19. They have been awarded degrees in the Fifth Convocation of the University held on October 3<sup>rd</sup>, 2019. Three students of the college received the University Medals for academic excellence, while 21 students received Merit Certificate for their academic achievement.

Sl. No.	Name of Students	ID. No.	Degree Programme	Medals
1	Mr. Ashutosh Kumar	464	B.Sc.(Hons) Agriculture	Gold Medal
2	Mr. Deepak Kumar	444	B.Sc.(Hons) Agriculture	Silver Medal
3	Mr. Shivam Mishra	416	B.Sc.(Hons) Agriculture	Bronze Medal

### University Medalist during Fifth Convocation

- As a part of University Cultural Team, 08 students of the college participated in 20<sup>th</sup> All India Inter-agricultural Universities Youth Festival held on February 8-12, 2020 at Indira Gandhi Agricultural University, Raipur.
- As a part of University Sport Team, 07 students of the College of Agriculture participated in 20<sup>th</sup> All India Inter Agricultural Universities Sports and Games Meet (AgriUniSports) held on March 1-5, 2020 at Shri Venkateshwara University, Tirupati, Andhra Pradesh.

## Experiential Learning Programme

Title of Research Projects	PI/ Co-PI	Year of commencement	Total Grants/Funding received (Rs.)	Name of Sponsoring/ Funding Agency
ELP on Development of entrepreneurship skills through spawn and mushroom production	1. Dr. Durga Prasad, In-charge/ Manager 2. Dr. V. K. Singh, Managing Director 3. Dr. G. S. Panwar, Chief Executive Officer 4. Dr. H. S. Negi, Associated Faculty	2019	27.99 lakh in FY 2019-20	ICAR, New Delhi
ELP on Agriculture Waste Management (Vermicompost)	Dr. Jaggannath Pathak, Dr. A.K. Chaubey, Dr. Deo Kumar, Dr. Amit Mishra and Dr. J.K. Tiwari	2019	Nil	BUAT, Banda

- Students of the college, also participated in different sports and cultural events organized during academic year 2019-20. Students of the college also participated in 10<sup>th</sup> Foundation Day Celebration of the University on March 2<sup>nd</sup>, 2020.

**Laboratories**

The College is currently having 8 well equipped state of the art UG laboratories, one in each the Department of Genetics and Plant Breeding, Soil Science and Agricultural Chemistry, Entomology, Agricultural Engineering, Agricultural Extension and two in the Department of Plant Pathology, A list of major equipments available in these labs is given below:



PG students working in Molecular Breeding Laboratory

**Table 11: Scientific equipments available with UG/PG laboratories including ELP**

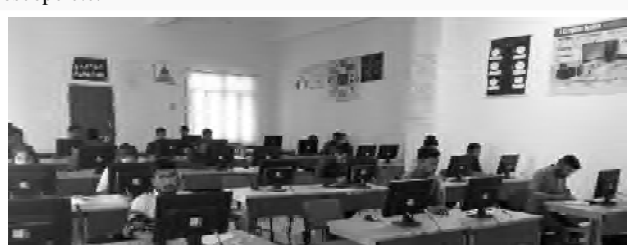
Genetics and Plant Breeding	
Centrifuge (Table top centrifuge)	Centrifuge (Mini centrifuge)
Centrifuge (Mini centrifuge)	Vortex (Mixture)
Vortex (Mixture)	Micropipette 0.5- 10µl, fully autoclavable
Micropipette 0.5- 10µl, fully autoclavable	Micropipette 2-20µl, fully autoclavable
Micropipette 2-20µl, fully autoclavable	Micropipette 10-100µl, fully autoclavable
Micropipette 10-100µl, fully autoclavable	Micropipette 100-1000µl, fully autoclavable
Micropipette 100-1000µl, fully autoclavable	Electrophoresis Unit Midi Horizontal
Electrophoresis Unit Midi Horizontal	Power supplies Output pack-4

**Table 12: Scientific equipments available under Centre of Excellence Projects**

Sl. No.	Name of Project	Items
1.	CEDA	1. Hot Air Oven 2. Vertical Autoclave 3. BOD incubator, Refrigerator 4. Camera 5. Commercial mixer grinder 6. Hot Air Oven 7. Vertical Autoclave 8. BOD incubator 9. Refrigerator 10. Camera 11. Commercial mixer grinder 12. Thermocycler, 13. Electrophoresis Unit, 14. Gel Documentation System, 15. Deep Freezer (-20 & -80 degrees), 16. Refrigerated Centrifuge, 17. Water bath, 18. Fume Hood, 19. Autoclave, 20. Ice flaking Machine, 21. Spectrophotometer, 22. RT-PCR, 23. Chlorophyll Meter, 24. Oven, 25. Ultrapure water purification system, 26. Magnetic Stirrer, 27. Cryocan, 28. Microscope etc.

**Computer Lab**

A Computer Lab having 31 Desktop Computers with printer, projector and 10 KVA UPS has been made operational in the College building to educate and train the students in Computer Applications. Internet connectivity has also been provided for e-communication and access to worldwide knowledge.



Students practical class in computer lab



## Students Education Farm

A multi-disciplinary Students Education Farm spread over an area around 24000m<sup>2</sup> has been developed and field training to the students in growing field crops, vegetables, flowers, fruits etc. and performing other field operations is provided at this farm. This facility is important part of any agriculture university where the UG students obtain practical field training and learn the complete process of crop production from sowing to harvesting. Students of B.Sc. (Hons) Agriculture degree programme grow crops of Kharif and Rabi season under Practical Crop Production (PCP) course.

## Student READY/In-plant Training/Internship/Experiential Learning Programme

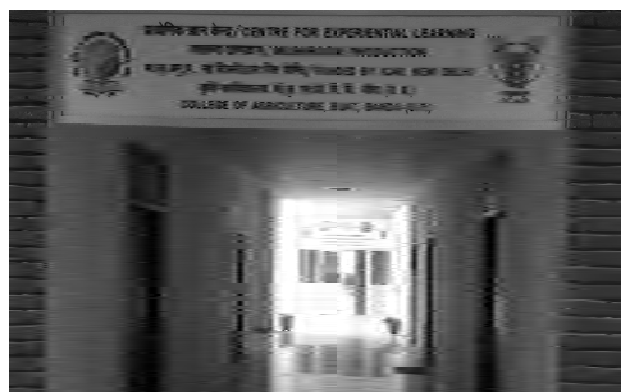
As per the 5<sup>th</sup> Dean's Committee guidelines for RAWE program, Batch 2016 students offered Student READY courses in two phases with 20 credits (0+20) each. The RAWE program is partly funded by the ICAR and the state government. In first phase the students are attached in nearby villages and KVKs for working/gaining hands on practical experience in agriculture based industries in collaboration with line departments and processing industries and crop production practices at farmers field. Students are also attached with Crystal Crop Protection Ltd. (19 students) and Geolife Agritech Pvt. Ltd. (35 students) for gaining hands-on expertise on related module. However in 2<sup>nd</sup> phase they undergo Experiential Learning programs. Presently, two Experiential Learning Programme are running in department of Plant Pathology (Mushroom Cultivation Technology) and Soil Science and Agricultural Chemistry Agriculture Waste Management (Vermicompost).

## Students' Activities under ELP on Mushroom Production

To reorient graduates of agriculture for ensuring and assuring employability and to develop entrepreneurs for emerging knowledge intensive agriculture; an ICAR funded Experiential Learning Unit on mushroom cultivation technology has been established in Department of Plant Pathology, College of Agriculture, BUAT, Banda under student READY (Rural Entrepreneurship Awareness Development Yojana) programme of Government of India.

After establishment of unit, 1<sup>st</sup> training of 53 students of B. Sc. (Hons) Agriculture final year on different aspects of mushrooms has been accomplished successfully under the supervision of Dr. Durga Prasad, Assistant Professor (Plant Pathology) & In-charge, Mushroom Unit. They were trained on different topics for developing them as entrepreneurs in the sector of mushroom enterprise. The major topics included in the training programme were requirements for establishing spawn laboratory and mushroom production unit; identification of edible mushrooms, techniques for preparation of media, pure

culture, mother spawn, commercial spawn, substrates for production of different mushrooms; cultivation technology of white button (*Agaricus bisporus*), oyster (*Pleurotus* spp), paddy straw (*Volvariella volvacea*) and milky (*Calocybe indica*) mushrooms; identification and protection of spawn and mushroom from different biotic and abiotic stresses; postharvest activities and value addition in mushroom and marketing strategies. In the mushroom unit, a sum of rupees 30000/- (thirty thousand) was also generated by the students within two months i.e. Feb and March, 2020 through production and marketing of spawn and fresh mushroom. Hence, this entrepreneurial skill based training will be useful to turn the students into entrepreneurs.



## Students' Activities under ELP on Agriculture Waste Management

An Experiential Learning Programme on Agriculture Waste Management has been undertaken by the Department of Soil Science and Agricultural Chemistry, College of Agriculture under student READY (Rural Entrepreneurship Awareness Development Yojana) programme of Government of India. All the 53 students of B.Sc. (Hons.) Agriculture have registered under the programme and were trained on different aspects of composting. The programme was led by Dr. Deo Kumar,

Assistant Professor (Soil Science and Agricultural Chemistry) & In-charge, Vermicompost Unit. The students were imparted training on entrepreneurship development in the sector of quality compost production technology.



Course instructors and students in practical session of ELP on Agriculture Waste Management

### Students Achievements

First time our students have got the admission in Masters' programme through All India competitive examinations. Besides, other students have also got the admission in PG programme at SAUs and CAUs after qualifying the national and state level competitions. Mr. Rishabh Tripathi, student of B.Sc. (Hons.) Agriculture and Ms. Shambhavi Awasthi, student of B.Sc. (Hons.) Forestry participated in District Level Debate Competition conducted by Amar Ujala Group. Ms. Shambhavi Awasthi got 3 position in that competition. She was also nominated to zonal level competition. Ms. Sambhavi Awasthi got 4<sup>th</sup> position in Zonal Level debate competition held at Arya Kanya Inter College, Banda on 28<sup>th</sup> August, 2019. This competition was open to all the academic institutions.

### Salient Achievements of Agriculture Farm, College of Agriculture

#### Production

- Currently agriculture farm is operational in about 25 ha area.
- During *kharif* season of crop year 2019-20, sesame crop was grown in about 5 ha area.
- About 15 quintals sesame crop yield was received and earning of Rs. 124100.00 (Rupees one lac twenty-four thousand one hundred only) was added first time to university repository from agriculture farm.
- During rabi season of crop year 2019-20, mustard crop was taken for commercial production in about 12 ha (exact area was sown 24 ha but beyond fencing area of about 12 ha of CEDA I had repeatedly grazed by stray animals).

- About 70 quintals (advance estimate) of mustard crop yield have received and as an estimate Rs. 262500.00 (Rupees two lac sixty-two thousand five hundred only) may be earned after selling.

### Development

- In order to convert the huge waste land into cultivable land and accommodate under agriculture farm for further crop cultivation to strengthen university repository, an another block of about 3.5 ha area behind the agriculture college building have developed in recent past.
- Furthermore, so far 250 acreage land have also been cleaned for cultivation in coming season.

#### Details of fifth convocation:

No. of students passed out: 55

No. of students selected for higher education through competitive exams: 43

Places of the higher education opted by passed out students after qualifying exams:

CSAUAT, Kanpur; SVPUAT, Meerut; NDUAT, Ayodhya; DRPCAU, Samastipur; BHU, Varanasi; AMU, Aligarh; SHUATS, Prayagraj and BUAT, Banda.

### Summer School/Winter School/Seminars/Symposia/Workshop/Training Course organized

#### Capacity Building Programmes for FPOs

The Department of Agricultural Extension, College of Agriculture conducted three days Capacity Building Programmes twice during November 28-30, 2019 and December 19-21, 2019 for the directors of various FPOs facilitated by Manavodaya Sansthan in Mahua and Badokhar Khurd blocks of Banda district. A total of 120 participants attended these programmes. The programmes were focused on organic farming, dairy, goatry, mushroom production, soil sampling, Kharif onion production, protected cultivation. Dr. U.S. Gautam, Hon'ble Vice Chancellor, BUAT welcomed and felicitated Dr. A.K. Singh, Hon'ble Vice Chancellor, BAU, Sabour (Bihar) during valedictory function of the capacity building programme. Dr. A.K. Singh emphasized to streamline the FPOs in order to achieve the maximum potential of the produce. He also visited the different units viz., mushroom production, protected cultivation, IFS model etc. developed in the university campus. Dr. B.K. Gupta, Assistant Professor, CoA successfully coordinated the programmes.

**Table 13: Summer School/Winter School/Seminars/Symposia/Workshop/Training Course organized**

Sl. No.	Title	Name of Department	Name of Course Coordinator	Duration	
				From	To
1	Entrepreneurship Development Programme on Goat Farming	Agricultural Extension	Dr. Dheeraj Mishra	Feb. 18, 2020	Feb. 22, 2020
2	Zonal Convention: Climate resilient agriculture for sustainable development of rural economy	Department of Entomology	Dr. A. K. Singh	Feb. 25, 2020	Feb. 26, 2020
3	Seminar: Apiculture as Entrepreneurial venture for Doubling Farmers' Income	Department of Entomology	Dr. A. K. Singh	Feb. 25, 2020	Feb. 26, 2020
4	District Level Farmers' Training for promotion of spices production in Bundelkhand region at Krishi Vigyan Kendra, Banda	Agricultural Extension	Dr. B.P. Mishra	Mar. 16, 2020	-

**Table 14: Participation of faculty as resource person in research/extension activities organized by other organizations/agencies**

Sl. No.	Name of faculty	Topic	Nature of Programme	Date	Venue	Organizer
1	Dr. Hitesh Kumar	Seed enhancement techniques	Quality Seed Grower Training Programme	Apr. 02, 2019	KVK, Banda	KVK, Banda
2	Dr. A.K. Singh	Management of Storage Insect Pest and Diseases	Skill Training of Quality Seed Grower	Apr. 2, 2019	KVK, Banda,	KVK, Banda
3	Dr. Narendra Singh	Scientific package and practices of fodder crops	ASCI training	Apr. 24, 2019	BUAT, Banda	KVK, Banda
4	Dr. Mayank Dubey	As Expert Animal Science	Krashak Vaigyanik Paricharcha under Kisan Pragati Yojna	Jun. 18, 2019	Village Pachnehi, Banda.	BUAT, Banda
5	Dr. Jagannath Pathak	Soil health and soil testing	Kisan gosthi	Jun. 18, 2019	Pachnehi	BUAT, Banda
6	Dr. Mayank Dubey	As Expert Animal Science	Bundeli Krishi Chaupal	Jun. 19, 2019	Village Jakhani, Banda	KVK, Banda
7	Dr. Durga Prasad	Management of Linseed Diseases Through Organic Amendments and Biocontrol Agents.	Farmer's training	Jun. 20, 2019	Crop Research Farm, Mauranipur	CRF, Mauranipur
8	Dr. Durga Prasad	Ecofriendly Management of Sesame Diseases	Farmer's training	Jun. 28, 2019	Crop Research Farm, Mauranipur	CRF, Mauranipur
9	Dr. Jagannath Pathak	Summer Deep Ploughing and Use of Organic Manure	Krishi Darshan	Jun. 29, 2019	Lucknow Doordarshan Lucknow	Lucknow Doordarshan Lucknow (UP)
10	Dr. Mayank Dubey	As Expert Animal Science	Krashak Vaigyanik Paricharcha under Kisan Pragati Yojna	Jul. 09, 2019	Village Ludhaura, Banda.	BUAT, Banda
11	Dr. Mayank Dubey	As Expert Animal Science	Krashak Vaigyanik Paricharcha under Kisan Pragati Yojna	Jul. 12, 2019	Village MawaiBuzurg, Banda.	BUAT, Banda
12	Dr. Mayank Dubey	As Expert Animal/ Dairy Science	District Level Dairy Development Plan	Aug. 02, 2019	DM Office, Banda	Dairy Development Office, Banda
13	Dr. Jagannath Pathak	Dalhan Evam Tilhan Fasalo Me Samayik Karya	Krishi Darshan	Aug. 21, 2019	Lucknow Doordarshan Lucknow	Lucknow Doordarsha Lucknow
14	Dr. Jagannath Pathak	Suitability of soil for organic farming	Farmers' Training Programme under Jaivik Corridor	Aug. 28, 2019	Dadari village	KVK Mahoba
15	Dr. Dharmendra Kumar	Prospects of fisheries in 100 village programme of BUAT Banda	Bundelkhand mein Matsaya Palan ki Sambhavnayein	Aug. 31, 2019	KVK Banda	KVK, Banda
16	Dr. Durga Prasad	Insect-pest and disease management practices in moong and urdbean	Kisan gosthi	Sept.12, 2019	Crop Research Farm, Gurusarai	Directorate of Research BUAT Banda
17	Dr. Mayank Dubey	Represented University as Expert Animal Science	Official Meeting for Documentation of Animal Genetic Resources of Uttar Pradesh	Sept. 27, 2019	Directorate of Animal Husbandry, Govt. of UP, Lucknow	UPLDB and NBAGR, Karnal
18	Dr. Mayank Dubey	As Expert Animal Science from University	Meeting of Vaigyanik Salahkaar Samiti	Sept. 28, 2019	KVK, Hamirpur	KVK, Hamirpur

Sl. No.	Name of faculty	Topic	Nature of Programme	Date	Venue	Organizer
19	Dr. Jagannath Pathak	Fertilizers use in agriculture	Awareness Programme on Fertilizer Application	Oct. 22, 2019	KVK, Banda	KVK, Banda
20	Dr. Durga Prasad	Report of ELP Mushroom	Rabi Workshop 2019	Oct. 24, 2019	BUAT Banda	Directorate of Research BUAT Banda
21	Dr. Dharmendra Kumar	Report of AICRP- Rapeseed & Mustard	Rabi Workshop 2019	Oct. 24, 2019	BUAT Banda	Directorate of Research BUAT Banda
22	Dr. Mayank Dubey	Invited Speaker	Training of FPOs Working in Banda.	Nov. 28, 2019	BUAT, Banda	Dept. of Agricultural Extension, CoA
23	Dr. Mayank Dubey	Invited Speaker	Training of FPOs Working in Banda.	Nov. 28, 2020	BUAT, Banda	Dept. of Agricultural Extension, CoA
24	Dr. Dinesh Sah	Organic farming –why and how	Training to FPO	Dec. 19, 2019	BUAT, Banda	Dept. of Agricultural Extension, CoA
25	Dr. Dinesh Sah	Certification of organic produce	Training to FPO	Dec. 20, 2019	BUAT, Banda	Dept. of Agricultural Extension, CoA
26	Dr. Rakesh Pandey	Biological control and identification of insect friends	Orientation training of FPO Directors	Dec. 20, 2019	BUAT, Banda	Dept. of Agricultural Extension, CoA
27	Dr. Mayank Dubey	Rapporteur	National Conference on Bundelkhand Development: Issues, Strategies and Way Forward	Jan. 10, 2020	BUAT, Banda	Bundelkhand Development Board, Govt. of UP
28	Dr. Dharmendra Kumar	Strategic lifestyle transition and their role as bio-control agents in crop protection	International Conference on Phytopathology in achieving UN sustainable development goals	Jan. 16-20, 2020	IARI -New Delhi	Indian Phytopathological Society
29	Dr. Dharmendra Kumar	Survey of nematode trapping fungi in Bundelkhand region of India and test of their in vitro nematophagous and mycophagous ability against plant pathogens	International Conference on Phytopathology in achieving UN sustainable development goals	Jan. 16-20, 2020	IARI -New Delhi	Indian Phytopathological Society
30	Dr. Mukul Kumar, Professor	Integrated crop management and important varieties of different crops for Bundelkhand	Orientation Training Programme for KVK Scientists and Related staff of BUAT, Banda	Feb. 5-6, 2020	BUAT, Banda	BUAT, Banda
31	Dr. Rakesh Pandey	How plant protection measures helps to increase the farmer income	Orientation training programme for KVK Scientists	Feb. 05, 2020	Auditorium, DoE BUAT, Banda	DoE, BUAT
32	Dr. Jagannath Pathak	Importance of Conserving Soil and Water In Bundelkhand Region	Orientation training programme	Feb. 05, 2020	BUAT	DOE-BUAT
33	Dr. Mayank Dubey	Invited Speaker	Orientation Training Programme for KVK Scientists and Related Staff	Feb. 19, 2020	Directorate of Extension, BUAT, Banda	Directorate of Extension, BUAT, Banda
34	Dr. Dheeraj Mishra	Entrepreneurship Development among Rural Youth	Orientation training programme	Feb. 19, 2020	BUAT	DOE-BUAT
35	Dr. Mayank Dubey	Invited Speaker	Zonal Convention on Climate Resilient Agriculture for Sustainable Development of Rural Economy	Feb. 25, 2020	BUAT, Banda	BUAT, Banda
36	Dr. S.K. Singh	Honey Bee and Apiculture	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda
37	Dr. B.K. Singh	Beekeeping equipment and their uses	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda

Sl. No.	Name of faculty	Topic	Nature of Programme	Date	Venue	Organizer
38	Dr. B.K. Singh	Bee hive produces and their importance	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda
39	Dr. Rakesh Pandey	Parasites and predators of honeybees and their management	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda
40	Dr. A.K. Singh	Scope, challenges and way forward of apiculture in Bundelkhand	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda
41	Dr. A.K. Singh	Chemical threats to honey bees and bees conservation	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda
42	Dr. A.K. Singh	Awareness and motivation for entrepreneurial start-up of apiculture	State Level Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers' Income	Feb. 25, 2020	Conference Hall, College of Horticulture, BUAT, Banda	Department of Entomology, BUAT, Banda
43	Dr. Dharmendra Kumar	Genomics, ecology and bio-management potential against crop pathogens	National seminar on Recent advances in fungal diversity, plant microbe interaction and disease management	Feb. 28-29, 2020	BHU Varanasi	Centre of advance study in Botany, BHU Varanasi

**Table 15: Visits of Farmers/Students to the college campus**

Sl. No	Department	Date	Number of Farmers/Students	Purpose	Faculty
1.	H.L. Inter College, Indira Nagar, Banda (UP)	06-02-2020	132 students	Educational Tour	Dr. Amit Kumar Singh and Dr. S.B. Singh
2.	JN PG College, Banda	February 13, 2020	40 students	Scientific Social Responsibility in the DST-SERB funded project	Dr. Arun Kumar
3.	Manvodya Sansthan, Banda in collaboration with DoE, BUAT Banda	28-30 Nov.	50 Directors of 10 FPO	Hands on Training and Demonstration	Dr. Arun Kumar
4	Farmers from various village of Banda	Feb. & March 2020	100	IFS unit visit and demonstration	Dr. Aniket H Kalhapure
5	Bhagvat Prasad Memorial Inter College Shrinath Bihar Chilla Road Banda	09-09-2019	130	Education Tour	Dr. Deo Kumar
6	Women's group of Hamirpur and Mahoba Districts	Jan. 2020	60	Agricultural visit	Dr. Deo Kumar, Dr. J.K. Tiwari
7	KCNIT, Banda	Sept. 2019	50	Education Tour	Dr. Deo Kumar
8	Pt. J.N. College Banda	Feb. 2020	60	Education Tour	Dr. Deo Kumar and Dr. Monika Jain
9	Sarswati Vidya Mandir Inter College, Banda	Feb. 2020	50	Education Tour	Dr. Deo Kumar



## College of Horticulture



The college of Horticulture is started in the year 2011 as one of the constituent colleges of Banda University of Agriculture and Technology (BUAT) with all three missions reflected in the Land-grant institutions: Teaching, Research and Extension. The goal of college is to contribute for the overall development of the horticulture through education along with strategic, cohesive, interdisciplinary and need based farmer oriented research and extension activities. The college of Horticulture is fulfilling the mission through the excellent and innovative work of outstanding faculty, staff and students. Present faculty strength in college is 18 including one Professor, five Associate Professors and twelve Assistant Professors for supporting students in teaching, research and various co-curricular activities. The college of Horticulture has 6 major departments *i.e.*, Fruit Science, Vegetable Science, Post-Harvest Technology, Floriculture & Landscape Architecture, Basic Sciences and Social Science. The voluntary centre of AICRP on Vegetable Crops and Arid Legumes and AICRP center on MAP & Betelvine are already functional in the College.

The college building is designed in a planned manner comprising of Dean's chamber with office, Main office for

employees, Visitors' room, Pantry room, a spacious committee room, a Counseling hall along with Account office, Establishment office and Staff room, Lecture halls (4) each with a sitting capacity of 80 students and equipped with LCD projector facility, Instruction Rooms (14) each with a sitting capacity of 35 students, Undergraduate Teaching Laboratories (8), Post-Graduate Lab/Research Laboratories (18), HoD Chambers (8) with Departmental Office, Pantry room and stores for each department, individual faculty chambers (25), Multipurpose Large Hall with a capacity of 250 students (1), Conference Hall (1), Visitors room (1), Rooms for Lab Technician, Lab Assistant and other staff (16), Store Room (30) and Canteen (1).

The College is consistently striving for the overall development of the students' knowledge and personality through various curricular and extra-curricular activities. Students are motivated to participate in various cultural events, sports and games for their physical and mental fitness. In addition, special extra classes are conducted for student's counseling, preparation for competitive examinations such as Junior Research Fellowship (JRF) and personality development, which have proved to be extremely beneficial to the students.

### Faculty Strength

**Table 16: Department wise strength of faculty members**

Sl. No	Department	Professor			Associate Professor			Assistant Professor			Total		
		S*	F*	V*	S*	F*	V*	S*	F*	V*	S*	F*	V*
1	Fruit Science	-	-	-	1	1	-	2	2	-	3	3	-
2	Vegetable Science	1	1	-	2	2	-	3	3	-	6	6	-
3	Post-Harvest Technology	-	-	-	1	1	-	2	2	-	3	3	-
4	Floriculture & Landscape Architecture	-	-	-	1	1	-	2	2	-	3	3	-
5	Basic Sciences	-	-	-	-	-	-	1	1	-	1	1	-
6	Social Science	-	-	-	-	-	-	2	2	-	2	2	-
	<b>Total</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>5</b>	<b>5</b>	<b>-</b>	<b>12</b>	<b>12</b>	<b>-</b>	<b>18</b>	<b>18</b>	<b>-</b>

\*S= Sanctioned

\*F= Filled

\*V= Vacant

**Table 17: Department wise strength of faculty positions**

Sl. No	Department	Professor	Associate Professor	Assistant Professor	Total
1	Fruit Science	-	1	2	3
2	Vegetable Science	1	2	3	6
3	Post-Harvest Technology	-	1	2	3
4	Floriculture & Landscape Architecture	-	1	2	3
5	Basic Sciences	-	-	1	1
6	Social Science	-	-	2	2
	<b>Total</b>	<b>1</b>	<b>5</b>	<b>12</b>	<b>18</b>

## Detail of meetings of Board of Studies

**Table 18: Recommendations of BoS**

Sl. No.	Date of Meeting	Agenda of Meeting	Recommendations
1.	16.01.2020	<p>1. Initiation of Ph.D. programme in different disciplines of College of Horticulture</p> <p>2. Provision of budget for conducting PG research trials</p> <p>3. Allocation of separate research farm for conducting research trials (Department wise)</p> <p>4. Provision of man power in all PG department</p> <p>5. Initiation of ELP on Floriculture and Landscape Architecture for B.Sc. (Hons) Horticulture students</p> <p>6. Establishment of Seminar room/Smart class and Wi-Fi internet connection in all department for PG students.</p> <p>7. Maintaining uniformity in course code of Elementary English course running at different colleges.</p> <p>8. Utilization of MoUs signed with ICAR/CSIR/other institutions.</p> <p>9. Establishment of Wi-Fi facility at college</p>	<p>Board members agreed upon initiation of Ph.D. programme in four disciplines viz. Fruit Science, Vegetable Science, Floriculture and Landscape Architecture and Post-Harvest Technology with two seats in each discipline.</p> <p>Board recommended that there should be provision of budget for conducting PG research trials. Therefore, Rs. 20,000/student/year may be sanctioned to meet out the expenses in term of inputs like fertilizers, chemicals, glasswares and raw materials etc.</p> <p>House discussed and agreed on allocation of separate research farm for conducting PG research and other research activities of the different departments</p> <p>Board suggested that at least one non-teaching staff shall be provided to each department for proper record keeping and helping in lab activities/field trials in respective departments.</p> <p>Board discussed and suggested that ELP on Floriculture and Landscape Architecture may be started for B.Sc. (Hons) Horticulture students from the II<sup>nd</sup> semester of Academic Session 2019-20.</p> <p>House recommended that Smart class/Seminar room equipped with all required facilities must be established at each department for effective teaching, learning and conduction of seminars.</p> <p>Board agreed and suggested that there should be uniformity in course code of Elementary English running at all the colleges.</p> <p>For providing better quality education, imparting training/exposure of innovative technologies and conducting advance PG research trials, facilities available in the ICAR/CSIR/other institutions may be utilized.</p> <p>Board members emphasized on establishment of Wi-Fi facility at college for timely exchange of information and knowledge updating in terms of latest technologies and research findings.</p>

## Research Projects

**Table 19: Detail of Research Projects**

Sl. No.	Title of Research Projects	PI	Co-PI(s)	Year of commencement	Centre	Name of Sponsoring/ Funding Agency
1.	AINP- Onion & Garlic	Dr. R.K. Singh	Dr. A.C. Mishra	2019	Voluntary centre	ICAR
2.	Evaluation of PGR Mepiquat Chloride 5%AS in Pumpkin	Dr. A.C. Mishra	Dr. B.K. Singh Dr. Sunil Kumar Dr. Vishal Chugh	2018	-	GhardaChemicals Pvt. Ltd.
3.	AICRP-MAP&B	Dr. A. K. Singh	Dr. Rakesh Kumar Sh. K.S Tomar Dr. Vishal Chugh Dr. B.S. Rajput	2018	Voluntary centre	DMAPR, Anand Gujrat.
4.	AICRP- Vegetable Crops	Dr. A.C. Mishra	Dr. S.V. Dwivedi Dr. R.K. Singh	2016	Voluntary centre	ICAR

## Students Enrollment in UG and PG Degree Programme

The College offers under-graduate programme, B.Sc. (Hons.) Horticulture and M.Sc. (Horticulture) with

specialization in Fruit Science, Vegetable Science, Floriculture & Landscape Architecture and Post-Harvest Technology.

**Table 20: Students enrollment in UG Degree Programme in Academic Session 2019-20**

Degree	Intake Capacity (University+ICAR)	Actual Enrollment
B.Sc. (Hons.) Horticulture	123	121

**Table 21: Students enrollment in PG Degree Programme in Academic Session 2019-20**

Department	Intake Capacity (University)	Actual Enrollment
M.Sc. (Hort.) Fruit Science	05	05
M.Sc. (Hort.) Vegetable Science	05	05
M.Sc. (Hort.) Floriculture & Landscape Architecture	05	04
M.Sc. (Hort.) Post Harvest Technology	05	04

## Laboratories

The College has well equipped state of the art laboratories namely Fruit Science Lab, Vegetable Science Lab, Floriculture Lab, Biochemical Analysis Lab and Post-Harvest Lab. These laboratories have been equipped for effective teaching and conduct of basic and applied research in different disciplines.

**Table 22: Scientific equipment available in the Laboratories**

No.	Name of Equipment	No.	Name of Equipment
1	-20°C Deep Freezer	19	Soxhlet apparatus
2	B.O.D. Incubator	20	Refrigerated centrifuge
3	Colorimeter	21	Fruit pulper
4	Double distillation assembly	22	Crown corking machine
5	Electronic balances	23	Pouch sealing machine
6	Hot air oven	24	Cabinet dryer
7	Hot plate	25	Weighing balance
8	Incubator Shaker	26.	Water Bath
9	Laminar Air Flow Hood	27	Food Processor
10	Magnetic stirrer with hot plate	28	Vegetable cutting Machine
11	Hand Refractometer	29	Muffle furnace
12	Lux Meter	30	Microwave
13	Non-refrigerated Centrifuge	31	Binocular Microscopes
14	pH meter	32	U.V. Visible Spectrophotometer
15	Protein electrophoresis assembly	33	Vertical Autoclave
16	Power pack unit	34	Vortex shaker
17	UV Transilluminator	35	Thermocycler
18	Rotary evaporator		



Biochemical Analysis Lab

**Table 23: Scientific equipment under Centre of Excellence Project (CEDA)**

Sl. No.	Name of Project	Items
1.	CEDA	Dal Mill
2.	CEDA	Pulverizer
3.	CEDA	Refrigerated centrifuge
4.	CEDA	Leaf area meter

## Brief report on RHWE activities

Rural Horticulture Work Experience (RHWE) Programme under Students READY scheme was conducted for the students of B.Sc. (Hons.) Horticulture in 7<sup>th</sup> Semester. The programme was conducted as per the guidelines of the

**Table 24: University Medalist during Fifth Convocation**

S. No.	Name of Students	Id. No.	OCPA	Degree Programme	Medals
1.	Sajeel Ahmad	479	8.913	B.Sc.(Hons.) Horticulture	Vice Chancellor Gold Medal
2.	Kanchan	522	8.910	B.Sc.(Hons.) Horticulture	Vice Chancellor Silver Medal
3.	Akansha Gupta	520	8.829	B.Sc.(Hons.) Horticulture	Vice Chancellor Bronze Medal

5<sup>th</sup>Deans' Committee report of ICAR. Students were attached with four selected KVKs under University jurisdiction, for eight weeks. During this session, students were also attached with horticulture based industries viz. Field Fresh Foods Pvt. Ltd., Ludhiana; Godrej Tyson Pvt. Ltd., Ludhiana; Dayal Fertilizers, Meerut; Farmers' First Nursery, Abohar; Vedvan Nursery, New Delhi; Hariyali Nursery and Landscapers, New Delhi and IFSA Seeds, Sriganaganagar

for better exposure with successful business models. An educational tour was also conducted as a component of RHWE programme. The students visited the institutes like, SVPUA&T, Meerut; IARI, New Delhi; CPRI Modipuram, Meerut; IIFSR, Modipuram, Meerut and Flower Show at Lucknow.

## Student Achievements

The students of the college have passed B.Sc. (Hons.) Horticulture degree with first division and they have been awarded degrees in the fifth convocation of the University held on 3<sup>rd</sup>October, 2019. Three students of the college received University Medals during the 5<sup>th</sup> convocation.



Medalist receiving Vice Chancellor Gold Medal from Hon'ble Governor, Uttar Pradesh





Batch 2016 degree recipients during 5<sup>th</sup> Convocation of the University

Out of the 47 students passed out in the year 2019, 03 students qualified ICAR-JRF examination and 26 students got admission for higher education through competitive examinations. These passed out students are pursuing their PG degrees from various prestigious Universities/Institutes, i.e. IARI, New Delhi; GBPUAT, Pantnagar; DRPCA, Samastipur; OUAT, Bhubaneswar; NDUAT, Faizabad;

CSAUAT, Kanpur; SVBPUAT, Meerut; BUAT, Banda; AMU, Aligarh etc.

Students are encouraged to participate in different events organized by the University. Many of students of the college participated in sports and cultural activities organized time to time and won the medals.

#### At Inter University Competition

S. No.	Name of Students	ID number	Batch	Event name	Remarks
1.	Mr. Pradeep Kumar Yadav	1028	M.Sc. Batch 2018CoH	100 & 200 meter	Cleared 2 <sup>nd</sup> round

#### At Inter University Competition

S. No.	Team Captain Name	Events	Performance
1.	Mr. Sarabjeet(As Captain) B.Sc. Hort. 2017	Kabaddi	Qualified for Quarterfinal Match

#### Fresher's Welcome -PG Batch 2019



Table 25: Summer School/Winter School/ Seminars /Symposia/Workshop/Training course organized

Sl. No.	Title	Organized by	Duration	
			From	To
1.	1 <sup>st</sup> Zonal Convention (UP East Zone) on "Climate resilient agriculture for sustainable development of rural economy".	Dr. SV Dwivedi Organizing Chairman	25.02.2020	26.02.2020
2.	1 <sup>st</sup> Zonal Convention (UP East Zone) on "Climate resilient agriculture for sustainable development of rural economy".	Mr. K.S. Tomar, Joint-organizing Secretary	25.02.2020	26.02.2020

### Participation of faculty as resource person in research/extension activities organized by other organizations/agencies

The faculty members of the college actively participated as resource person in various programmes viz., conference, workshop, training, flower show etc. These events were organized by different colleges of the university, state departments as well as various other funding agencies.

### Procurement and distribution of Fruit planting material

Fruit planting material was purchased for establishing orchard within the University campus for research, demonstration block, bio-fencing and distribution to other colleges, KVKs, and research farm of this University. Plants were purchased from different State Agricultural Universities, ICAR Institutes, registered Govt./ Public sector

**Table 26: Participation of faculty as resource person in research/extension activities organized by other organizations/agencies**

Sl. No.	Name of faculty	Nature of job	Nature of Programme	Date	Venue	Organizer
1.	Dr. SV Dwivedi	Session Convener	Seminar on Apiculture as Entrepreneurial Venture for Doubling Farmers Income	25-26 Feb. 2020.	College of Horticulture	BUAT, Banda
2.	Dr. SV Dwivedi	As expert to Judge Horti. show	State level exhibition	22-24 Feb. 2020.	Rajbhawan, Uttar Pradesh	UP Govt.
3.	Sh. K.S. Tomar	Jury member to Judge flower show	Flower Show, Raj Bhawan	22 Feb. 2020	Raj Bhawan	UP Govt.
4.	Dr. Punam Pandey	Life Skills Acquisition in Blended and Flipped Learning	Special Lecture	17Feb. 2020	DSMNR University Lucknow	Department Of English & Other Foreign Languages, DSMNRU Lucknow
5.	Dr. SV Dwivedi	Resource person	Training on Mushroom production	2 <sup>nd</sup> Feb 2020	KVK Mahoba	ASCI
6.	Dr. Ajay Kumar Singh	Resource person	National conference on Bundelkhand development: Issues, Strategies & Way forward	10-11 Jan. 2020	BUAT, Banda	Department of Agriculture and Planning, Govt. of U.P.
7.	Dr. SV Dwivedi	Special guest	Wild Life Week 2019	19 Oct. 2019.	College of Horticulture	BUAT, Banda
8.	Dr. R. K. Singh	Resource Person	Winter School entitled Appropriate Agricultural Technologies and Extension Approaches for Doubling Farmers Income	07 Jan. 2019	CoH, BUAT, Banda	Directorate of Extension, BUAT, Banda

**Table 27: Visits of Farmers/Students to the College Campus**

Sl. No	Department	Date	Number of Farmers/Students	Topic	Faculty
1.	Post Harvest Technology	13.02.2020	30	Lab Visit	Dr. Vigya Mishra
2.	Basic Science	13.02.2020	30	Lab Visit	Dr. Vishal Chugh
3.	Post Harvest Technology	14.07.2019	30	Lab Visit	Dr. PriyaAwasthi



Fruit plant nursery

accredited Nurseries. Plants were distributed to KVK Mahoba, KVK Banda, KVK Hamirpur, KVK Jalaun, KVK Jhansi, KVK Lalitpur, College of Agriculture, College of Forestry, CEDA project etc.

### Establishment of Fruit Nursery

The fruit nursery established behind the College of Horticulture building is having seedlings of karonda, jamun, custard apple, guava, *Citrus jambhiri* and *Citrus karna*. Recently one net house and one mist chamber has been built under the CEDA project. In this the cuttings of pomegranate, fig and phalsa are being grown as well as the seeds of aonla and jamun are also sown for plant multiplication.

### Visit of dignitaries in the Orchard



Dr. Mangla Rai Ex-DG, ICAR visting citrus block



Dr. K V Raju, Economic Advisor, Govt. of Uttar Pradesh observing fruiting in Ganganagar Lime 1

### Development of Floriculture Farm

A demonstration-cum-research farm was established by the Department of Floriculture and Landscape Architecture at Horticultural Instructional Farm. Various research activities are also being carried out for promotion of floriculture in Bundelkhand region.



Crop cafeteria developed at Floricultural farm



Seedling production of African and French Marigold



## College of Forestry



The College of Forestry has been started to provide impetus to agricultural forestry development in the region and upliftment of rural people in Bundelkhand region. The College of Forestry has six departments namely, Silviculture and Agroforestry, Forest Biology and Tree Improvement, Forest Products and Utilization, Wildlife Sciences, Basic and Social Sciences and Natural Resource Management.

The first intake of the students was in 2017 with 50 students were enrolled in the B.Sc. (Hons) Forestry. The PG programmes in two departments *i.e.*, Department of Silviculture & Agroforestry and Department of Forest Biology & Tree Improvement will also be started from the session 2020-21. The faculty of College comprised of highly qualified academic staff consisting of one Associate Professor and 14 Assistant Professors, who have contributed significantly in their specialized field of teaching, research and extension. The College provides excellent academic environment for developing the practical skills among students through well furnished laboratory facilities. The practical manuals of different courses have been prepared by faculty members, which are also very useful to the students. Students Education Farm is being developed for practical training of students in forestry. Students also participate in cultural, literary, sports and NCC/NSS activities which help in their all-round development.

### Degree Programmes

At present, the College is offering undergraduate degree programme (B.Sc.-Hons. Forestry) since 2017. and postgraduate programmes in the College will start from the academic session 2020-21.

### Students enrollment in B.Sc. (Hons.) Forestry De

Year	Intake Capacity (University+NRI)	Actual Enrollment
2019-20	65	65

### Meetings of Board of Studies

3<sup>rd</sup> meeting of Board of Studies was conducted on September 7, 2019 under the chairmanship of Dr. Sanjeev Kumar, Associate Dean, CoF. The following agenda were discussed during the meeting:

- Confirmation of proceedings of 2<sup>nd</sup> Board of Studies held on 19<sup>th</sup> January, 2019 at the College of Forestry.
- Review of the actions taken on the decision of the 2<sup>nd</sup> Board of Studies held on 19<sup>th</sup> January, 2019 at the College of Forestry.
- Revision of restriction (s) for student on Academic probation.
- Provision of makeup examination of Midterm & Final Practical under special circumstances.
- Setting up of separate question paper for final theory examination by External examiners for Rangeland & Livestock Management, Forest Protection and other similar courses.
- Setting up of bilingual (English & Hindi) question paper for end term theory paper.
- Returning question papers of end term examination to the students.
- Revision of Maximum credit load for UG student.
- Shifting of courses.
- Enrichment of UG course SA 2207; Silviculture of Indian Trees.
- Moderation in the course content of the subject "Non-Wood Forest Products (FP-3206)".
- Starting PG Programme in Natural Resource Management.
- Provision of Guest faculty for Mathematics courses.
- Course of Basic Mathematics to be shifted from I<sup>st</sup> semester to II<sup>nd</sup> Semester and of B.Sc. (Hon) Forestry.
- Academic calendar should be prepared by taking into Consideration the UPCATET counseling dates.

## Faculty Strength

**Table 28: Department wise strength of faculty members**

Sl. No	Department	Professor			Associate Professor			Assistant Professor			Total		
		S*	F*	V*	S*	F*	V*	S*	F*	V*	S*	F*	V*
1	Silviculture and Agroforestry	1	-	1	2	1	1	4	4	-	7	5	2
2	Forest Biology and Tree Improvement	-	-	-	2	-	2	3	3	-	5	3	2
3	Forest Products Utilization	-	-	-	2	-	2	2	1	1	4	1	3
4	Wildlife Sciences	-	-	-	-	-	-	1	1	-	1	1	-
5	Natural Resource Management	-	-	-	2	-	2	3	3	-	5	3	2
6	Basic Sciences	-	-	-	-	-	-	3	2	1	3	2	1
	<b>Total</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>7</b>	<b>16</b>	<b>14</b>	<b>2</b>	<b>25</b>	<b>15</b>	<b>10</b>

\*S= Sanctioned

\*F= Filled

\*V= Vacant

**Table 29: Participation of faculty as resource person in research/extension activities organized by other organizations/agencies**

Sl. No.	Name of faculty	Topic	Programme	Date	Venue	Organizer
1.	Dr. Dinesh Gupta, Assistant Professor	Genetically improved planting stock as an important and valuable resources for increasing productivity of Plantation Forest	Meeting	Aug. 3, 2019	Forest Research Institute, Dehradun	Forest Research Institute, Dehradun
2.	Dr. Aishwarya Maheshwari, Assistant Professor	International Symposium on Tiger and Leopard Conservation and Wildlife Resources	International Symposium (as Special invitee and guest lecturer)	July 26-30, 2019	Harbin, China	Northeast Forestry University, Harbin, China
3.	Dr. Dinesh Gupta, Assistant Professor	Best researcher in Forestry, 2019	National Award ceremony of Best researcher in Forestry, 2019	June 12, 2019	ICFRE, Dehradun	ICFRE, Dehradun
4.	Dr Sanjeev Kumar, Associate Professor	Video conferencing	National Livestock disease control programme	Sept. 11, 2019	KVK, Banda	KVK, Banda
5.	Dr Sanjeev Kumar, Dr Dinesh Gupta & Dr Avanish Sharma	Consultation meeting	Scaling out climate smart Agriculture for Resilient farming in India	Sept. 12-13, 2019	KVK, Banda	KVK, Banda
6.	Dr Sanjeev Kumar, Associate Professor	Brihad Briksharopan Abhiyan	Farmer Scientist Interaction Programme	Sept. 17, 2019	KVK, Banda	KVK, Banda
7.	Dr. Aishwarya Maheshwari, Assistant Professor	Consultation workshop	Development of landscape management plan and monitoring with reference to Ken-Betwa River link Project	Jan.18-19, 2020	Panna Tiger Reserve, MP	Wildlife Institute of India, Dehradun
8.	Dr. Kaushal Singh, Dr. Mh. Nasir and Dr. A. Maheshwari	World Wetland Day	Observance of World Wetland Day, 2020	Feb. 02, 2020	Rakshi Dam	Forest Department

**Table 30: Distinguished visitors at college campus**

Sl. No.	Name	Designation	Date of visit
1.	Dr. Bijendra Singh	DG, UPCAR	May 21, 2019
2.	Shri Gyan Singh	Secretary, UPCAR	May 21, 2019
3.	Shri Lakhan Singh Rajput	Hon'ble State Minister, Agriculture, Agriculture Education & Research, Govt. of Uttar Pradesh	September 17, 2019
4.	Dr. Punjab Singh	Former DG, ICAR	October 03, 2019
5.	Shri Chandrika Prasad Upadhyay	Hon'ble State Minister, PWD, Govt. of Uttar Pradesh	November 08, 2019
6.	Shri KV Raju	Advisor, Govt. of Uttar Pradesh	November 21, 2019
7.	Shri Surya Pratap Shahi	Hon'ble Minister, Agriculture, Agriculture Education & Research, Govt. of Uttar Pradesh	January 10, 2020
8.	Dr. Mangala Rai	Former DG, ICAR	January 10, 2020



Hon'ble Vice Chancellor visiting coriander demonstration block under MIDH



Dr. Mangala Rai and Dr. Bijendra Singh interacting with university scientists

### Laboratories

The College has 7 UG and 14 PG/Research labs for effective teaching and for basic and applied research in different disciplines.

**Table 31: Various Laboratory items under different departments**

Sl. No.	Name of Department	Items		
1	Forest Biology & Tree Improvement	Vacuum cleaner (Bosch)		
		Hot Air Oven		
		Magnetic Stirrer (Helix bioscience)		
		Vertical gel Electrophoresis unit (Helix bioscience)		
		pH meter (Helix bioscience)		
		Weighing balance		
		Arc Auxanometer		
		Ganong photometer		
		Microscope (ESAW India)		
		2	Forest Products and utilization	Circular saw (Hitachi)
Drilling Machine (Bosch)				
Cordless Screw driver (Bosch)				
Jig Saw (Bosch)				
Sanding Machine (Bosch)				
Power Chain Saw (Hitachi)				
Electrical Planer (Bosch)				
Angular grinder				
3	Silvicultural and Agroforestry			Lux Meter (KM-Lux- KUSAM Meco)
				Tangent height gauge
		Digital caliper		
		Ravi multimeter		
		Dendrometer		
		Spiegel Relaskop		
		Bark gauge		
		Increment borer		
		Compass		
		4	Plant Tissue Culture Laboratory	Laminar Air Flow
Autoclave				
Hot air oven				
Microwave oven				
Weighing balance				
pH meter				
Water distillation unit				
Vortex				
Bead sterilizer				
Incubator shaker				
5	Wildlife Sciences	Water bath		
		Binocular		

### Remote Sensing and GIS Laboratory

The Remote Sensing and Geographical Information System (RS &GIS) laboratory is established at department of natural resources management, college of forestry as per the recommendation of fifth dean's committee of ICAR. The laboratory is effective for delivery of course curriculum including forest survey and engineering, geomatics, watershed management and introduction to RS & GIS, Cartography, Vegetation mapping using satellite imagery, global navigation satellite system applications and introduction to various GIS softwares etc. are being taught under different programs of the university and demonstration to the students. The impact and demand for RS & GIS laboratory in a growing university will continue to experience tremendous growth in the educational sector. Progress continues to be made toward determining the most effective and efficient pedagogical methods to enhance geographic problem-solving and spatial reasoning skills. Remote sensing and GIS as a science is helping to facilitate these skills by providing students with a real-world interface between the technology and the content in a variety of subject areas. The more we understand about this Bundelkhand area, the educated and appropriate our decisions are being used to investigate and solving important local problems in the field of natural resources management. Presently the RS & GIS laboratory has the capacity of 15 computers with open source tools (Q-GIS, google earth, GRASS, SAGA etc.) connected through LAN for sharing of information with facility for delivering the live instructions to students through projector. The laboratory has the capacity to accommodate total 30 students (2 students per computer) for practical of various GIS and image processing operations using open source softwares.

### Soil Science Laboratory

A Soil Science Laboratory has been established in the Department of Natural Resource Management. This laboratory contains pH meter, electronic balance, hot plate, soil augur and other instruments. It is also having Vermicompost unit that produce about 06 quintal Vermicompost per year. We are also providing the vocational training of 'Vermicompost production' for farmers, women



Soil science lab CoF

and school dropouts. The B.Sc. students of the college are analyzed different soil analysis and other practical oriented work. The motive of this laboratory is to educate and train the students for nutrient analysis and clear the basic fundamentals of soil science.

### Laboratory of Forest Product Utilization

The forest product utilisation departments, college of forestry is in the process of developing wood workshop, with an especial emphasis on creating Advance Facility Centre for Bamboo Processing. In view of the immense economic potential of this amazing material and to develop value added products like handicrafts and furniture items, students are being trained to develop various bamboo products like pen stand, bouquet, ornaments, wooden jewelery etc. under ELP programme. The products made by the students are kept under various exhibitions, workshops etc organized time to time by the University as well as District and State exhibitions.



Bamboo handicrafts

### Establishment of Herbal Garden

Herbal Garden has been established by Dr. Bhalendra Singh Rajput, Assistant Professor, Deptt. of Silviculture & Agroforestry, College of Forestry in 0.2 acre area at BUAT, Banda. A total of 40 species belong to Aromatic and medicinal plants. The herbal garden was inaugurated by Hon'ble State Agriculture Minister, Shri Surya Pratap in 2019.



Hon'ble Minister visiting Herbal Garden

### Establishment of Agroforestry Model

Agroforestry model has been developed on total area of 18075m<sup>2</sup> with eight species viz. Moringa, copper pod, arjun, mulberry, karanj, kasod, bahera and mango during 2019 at farm of BUAT, Banda. The model has been established with the objective to assess growth performances of multipurpose tree species under different agroforestry systems.



Agroforestry model developed by CoF

### Student's visit to Bahilpurva Village, Chitrakoot

A trip of B. Sc. (Hons) Forestry, Batch 2017 was conducted on May 11, 2019 with the objective to document

the valuable Indigenous Technical Knowledge (ITK) of the *Kol* tribe residing in Bahilpurva village of Chitrakoot, U.P. The information regarding usage and application of various plant species in different activities viz. for construction of huts, agriculture implements, furniture, transport, hygiene, rituals and as ethno-medicines were recorded from the various age groups with the help of standard questionnaire. The uses of wood and other plant parts like leaf, bark, roots, etc. were observed and recorded directly from the tribal informants. These uses were grouped in categories. The visit was coordinated by Dr. Kaushal Singh and Dr. Dinesh Gupta.



Students' visit





## College of Home Science



The College of Home Science was started in 2019 with B.Sc. (Hons.) Home Science Programme. The College is marching with its prime objectives to confer well scientifically planned, multi-lateral, life skills-driven and personality development courses to students excel in the field of family care, health, and community services and in other professional carriers in the present context. The College is committed to ensure the overall development of students. Education of Home Science will enable them to step in areas such as food industry, textile industry, food preservation industry, fashion designing, counseling and psychiatry and will provide all possible training in future to take up all responsibilities and cope up efficiently. At initial stage, college is trying its best to develop scientific attitude in students to achieve efficiency and bring required qualitative change in all walks of the life.

### Teaching and Research

- To develop scientific attitude in students to achieve efficiency and bring required qualitative change in all walks of the life
- To Establish the various department under Home science like Child & Human Development, Clothing & Textile, Food Science & Nutrition, Family Resource Management and Extension Education & Communication Management.
- Soon, laboratories in Home Sciences like textile & clothing Construction Laboratory, Human Development laboratory, Food and Nutrition Laboratory, Extension education Laboratory etc. will be set up to strengthen the practical knowledge of courses.
- To enable students to step in areas such as Food Industry, textile industry, Food preservation Industry, fashion designing, counseling and Psychiatry
- To provide all possible training to take up all responsibilities and cope up efficiently.
- To infuse the sense of social responsibility among students to bring awareness at myriad levels

### Extension

- Will impart the knowledge to rural women in Bundelkhand to equip themselves to meet the challenges lying in the way of works through the various programmes, workshops etc.
- To train them to adopt the work and stress management strategies
- To acquaint the rural women in Bundelkhand with management tools in the working field

### Thrust Areas

- Food and nutritional security in selected farming system.
- Drudgery assessment and mitigation of occupational health hazards.
- Characterization of drudgery of women in production environment and assessment of technology packages in mitigating drudgery.
- Sensitizing youth and their families for management of socio-emotional problems of youth.
- Utilization of plant sources and animal fibers for textile application.

### Strategic Plan

- Emphasizing student progression and learning through skill and professional development
- Boosting entrepreneurial opportunities and exposure to the students
- Use of eco-friendly approaches for sustainable growth
- Mitigating human drudgery through economically designed farm mechanization
- Creating awareness and knowledge about healthy life style and nutritional security

### Degree Programme

The College has been offering undergraduate degree programme *i.e.*, B.Sc. (Hons.) Home Science since 2019.

**Table 32: Students enrollment in UG Degree Programme in the academic session 2019-20**

Degree Programme	Intake Capacity	Actual Enrollment
B.Sc. (Hons.) Home Science	30	03

of DR Shakuntala Mishra National Rehabilitation University Lucknow on **Life Skills Acquisition in Blended and Flipped Learning** on 16 February 2020.

### Faculty Strength

Name of the College	Name of the Post	Sanctioned	Filled*	Vacant
College of Home Science	Professor	01	00	01
	Associate Professor	02	00	02
	Assistant Professor	04	00	04
	<b>Total</b>	<b>07</b>	<b>00</b>	<b>07</b>

\*Sanctioned posts had been advertised but could not be filled as the recruitment process was withheld by the Government of UP. Presently, the academic activities in the college have been looked after by the faculty members of other constituent colleges.

College of Home Science started from academic session 2019-20. The following faculty members are engaged in teaching at the college:

Sl No	Name of faculty Members with Designation	Department
1	Dr. Priya Awasthi, Associate Dean	Department of Post Harvest Technology
2	Dr. Punam Pandey, Assistant Professor	Department of Humanities & Basic Science
3	Dr. Monika Jain, Assistant Professor	Department of Environmental Science
4	Dr. Chandra Kant Tiwari, Assistant Professor	Dept. of Forest Biology and tree Improvement
5	Dr. Vigya Mishra, Assistant Professor	Department of Post Harvest Technology
6	Dr. Shalini Purwar, Assistant Professor	Department of Plant Biotechnology
7	Dr. Vishal Chugh, Assistant Professor	Department of Humanities & Basic Science
8	Dr. Pragya Ojha, Subject Matter Specialist	Home Science
9	Dr. Sarita Devi, Subject Matter Specialist	Home Science
10	Dr. Diksha Patel, Subject Matter Specialist	Agricultural Extension

### College Library

College of Home Science has started to set up one college library with all required books for the running degree programme. Apart from it college has placed books' requirement of 500 books keeping in view the need of students of B Sc Degree programme. College library provides facilities of depositing and borrowing the books to girl students during working time. Students visit library and study sitting in college library in its peaceful environment.

### Visit at College Campus:

Principal, Government Girls' Inter College Sisolar, Hamirpur along with staffs and students visited the college on 10 December 2019. They saw the college varsity and talked to Dr Priya Awasthi, Associate Dean CoHSc. and appreciated college effort.

### “BOOST UP CLASSES” STARTED

To build confidence among students and motivate students to learn life skills, “BOOST UP” classes started since 25 February 2020. It runs on each Saturday at 11:00 am. Faculty members engaged in teaching in the college of Home Science take this class on the rotation basis.

### Invited Lecture

Dr Punam Pandey In-Charge Dean, College of Home Science was invited to deliver lecture to PG and research Scholars, Department of English & Other Foreign Languages

### Women's Day 2020 at College



Dr. US Gautam, Hon'ble VC on interaction with Associate Dean, College of Home Science



Students preparing rangoli to celebrate Diwali festival at college premises

### Entrepreneurship Development:

Some entrepreneurship skill development training and programmes like pot decoration, rangoli making, doormat making and flower decoration etc. were organized at College of Home Science to improve the skills and knowledge of students regarding entrepreneurs. The whole point of entrepreneurship development is to increase the number of entrepreneurs. By doing this, the pace at which new businesses or ventures are made get better. On a wider level, this makes room for employment and improves the economy of a business or country.



Students getting trained in Pot-Decoration

