



IAUA NEWS

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NEW TECHNOLOGIES

A. CROP and HORTICULTURAL SCIENCES

The Agricultural Universities made earnest efforts to develop new technologies in Crop and Horticultural Sciences which included varieties/hybrids; machines and equipment; products and processing; and package of practices as given below:

VARIETIES/HYBRIDS

Anand Agricultural University (AAU), Anand

Rice

Gujarat Rice 21 (Vatrak)

- Notification No.: S.O. 4065(E), Dt. 31/08/2022.
- Yield: 5345 kg/ha.
- Released for: Gujarat (*kharif* - transplanted).
- Medium slender grain type, cluster panicle good tillering ability, medium maturity, good cooking and grain quality and high Fe and Zn content.
- Moderately resistant to major insect pests *viz.*, white backed plant hopper, yellow stem borer and and leaf folder and major diseases *viz.*, bacterial leaf blight, leaf blast, neck blast, sheath rot and grain discoloration.

Gujarat Anand Rice 22 (Swagat)

- Notification No.: S.O. 4065(E), Dt. 31/08/2022.
- Yield: 5613 kg/ha.
- Released for: Gujarat (*kharif* - transplanted).
- Long slender grain type, straight panicle, good tillering ability, medium maturity, good cooking and grain quality.

- Moderately resistant to major insect pests *viz.*, white backed plant hopper, yellow stem borer and leaf folder and major diseases *viz.*, bacterial leaf blight, leaf blast, neck blast, sheath rot and grain discoloration.

Chili

Gujarat Anand Vegetable Chili 141 (Anand Tej)

- Notification No.: S.O. 3254(E), Dt. 20/07/2022.
- Yield: 149 q/ha.
- Released for: Middle Gujarat (*kharif-rabi*).
- Fruits medium intensity of green colour with smooth texture, less prevalence chili leaf curl diseases and fruit damage by fruit borer, lower infestation of thrips.

Tomato

Gujarat Anand Tomato 8 (Anand Roma)

- Notification No.: S.O. 3254(E), Dt. 20/07/2022.
- Yield: 406 q/ha.
- Released for: Middle Gujarat (*kharif-rabi*).
- Determinate growth habit, light green leaf colour, ovoid fruit shape with flat to pointed blossom end, less prevalence of tomato leaf curl diseases and less damage by leaf miner and fruit borer.

Black gram

Gujarat Anand Urdbean 4 (Shyamal)

- Notification No.: S.O. 4065(E), Dt. 31/08/2022.
- Yield: *Kharif*: 1005 and Summer: 864 kg/ha.
- Released for: Middle Gujarat (*kharif* and Summer).
- Medium maturity, semi-erect in nature and resistant against yellow mosaic disease (YMD).

Mung bean

Gujarat Anand Mungbean 8 (Hara Moti)

- Notification No.: S.O. 4065(E), Dt. 31/08/2022.

- Yield: 1171 kg/ha.
- Released for: Middle Gujarat ().
- Medium maturity (65-75 days), determinate growth habit with medium seed size and shiny green seed and resistant against mungbean yellow mosaic virus (MYMV).

Cluster bean

Gujarat Vegetable Guar 11 (Anand Bahar)

- Notification No.: S.O. 3254(E), Dt. 20/07/2022.
- Yield: 634.90 q/ha.
- Released for: Middle Gujarat (*kharif-rabi*).
- Dark green pod with sparse serration of leaf long pod with non-branching pattern, prominent pod construction in cluster, less prevalence of alternaria blight and BCMV diseases and low infestation of jassids, aphid and whitefly.

Brinjal

Gujarat Anand Brinjal 6 (Anand Doli)

- Notification No.: S.O. 3254(E), Dt. 20/07/2022.
- Yield: 634.90 q/ha.
- Released for: Middle Gujarat (*kharif - rabi*).
- Fruit dark pink skin with strong glossiness, club shape fruit, cluster fruiting pattern, less prevalence of little leaf diseases reaction lower number of jassids and whitefly fruit borer.

Gujarat Round Brinjal 8 (Anand Raj)

- Notification No.: S.O. 3254(E), Dt. 20/07/2022.
- Yield: 426 q/ha.
- Released for: Gujarat (*kharif-rabi*).
- Fruits ovoid shaped, fruits skin purple with strong glossiness, less prevalence little leaf diseases reaction, lower number of Jassid and whitefly, less damage of fruit and shoot borers.

Okra

Gujarat Anand Okra 8 (Anand Komal)

- Notification No.: S.O. 3254(E), Dt. 20/07/2022.

- Yield: 125 q/ha.
- Released for: Middle Gujarat (*kharif and Summer*).
- Fruits dark green, tender, smooth, medium long, narrow acute shape of apex, strong serration of leaf blade margin and deep depth of lobbing tall plant stature with greater number of nodes and short internodes.
- Less prevalence yellow vein mosaic and Enation leaf curl diseases and lower jassids and less damage by shoot borer.

Birsa Agricultural University (BAU), Ranchi

Soybean

Birsa Soybean 4

- High yielding variety and its average yield is 25-28 q/ha.
- Matures in 105-110 days.
- 40.50 % protein and 17.50 % oil content.
- Tolerant to powdery mildew, Rhizoctonia aerial blight, target leaf spot, bacterial pustules, Myrothecium leaf spot and pod blight.
- Moderately resistant to defoliators, stem fly, girdle beetle.
- Least or no attack of Bihar hairy caterpillar due to hairy stem and pod.



Dr Rajendra Prasad Central Agricultural University (Dr RPCAU), Pusa

Sugarcane

Rajendra Ganna 2 (CoP09437)

- Yield potential: 77.68 ton/ha.
- Tolerant to water logging and draught condition.

- Recommended for:
Eastern Uttar
Pradesh, Bihar,
West Bengal,
Jharkhand and
Assam.



Rajendra Ganna-2
(CoP09437)

Junagadh Agricultural University (JAU), Junagadh

Gram

Gujarat Kabuli Gram 1 (GJGK 1617)

- Extra-large seeded (42.6 g) Kabuli chickpea variety GJGK 1617 has good average seed yield (13.83 q/ha), consistent seed yield superiority with medium duration of maturity (144 days).
- A bold seeded line with beige colour attractive seeds with a protein content of 18.01%.
- Area of adoption: North West Plain Zone of India (Punjab, Haryana, Delhi, Uttarakhand, Jammu, Western Uttar radishh and Northern, Western and Central Rajasthan).



**Gram Gujarat Kabuli
Gram 1 (GJGK 1617)**

Groundnut

GG 40 (ICGV 16668)

- Spanish bunch *kharif* groundnut variety, high oleic (80.72 %). Developed at ICRISAT center in collaboration with MORS, JAU, Junagadh.
- Recorded higher dry pod (3,321 kg/ha)
- Area of adoption: Rajasthan, Gujarat, Andhra Pradesh, Karnataka.



Groundnut GG 40
(ICGV 16668)

Cotton

Hybrid G. Cot.Hy 26 BG II: (Sorath Swet Kanchan)

- Established its superiority over checks for seed cotton yield, lint yield, ginning out turn and number of bolls per plant.
- Possesses long staple length 26.8 mm, has many sympodia (17 to 23) with more number of bolls with less internode distance.
- Area of adoption: Central zone (Irrigated condition) (Gujarat, Maharashtra and Madhya Pradesh).



**Cotton Hybrid G. Cot.Hy-26
BG II: Sorath Swet Kanchan**

Sri Karan Narendra Agriculture University (SKNAU), Jobner

Krishna Tara

RTM 1624

- The variety has wider adaptability and stability under rainfed condition. It was developed by hybridization between RTM-1351 × T-27.
- Yellowish brown shiny good quality seed with high oil content ranges from 39-39.8 %.
- Plants are of medium height (89-107 cm) with profuse branching.
- Maturity period is 139 days. This variety gives 12-15 q/ha seed yield under the recommended practices.
- It is resistant to white rust and stag head, moderately resistant to downy mildew.
- Moderately tolerant to drought.



RTM-1624

**Sher-e-Kashmir University of
Agricultural Sciences and
Technology of Jammu (SKUAST),
Jammu**

Wheat

JAUW 672

- It is moderately resistant to all three rusts (yellow/ stripe, leaf and stem rust).
- It has excellent grain characters, high protein content and excellent chapati quality.
- It is ideally suited for Kandi / rainfed areas of Jammu.
- Yield of 57.8 q/ha at Chatha and zonal mean of 54.5 q/ha.
- Area of adoption: UT of J&K (restricted irrigation/ rainfed areas of sub-tropical regions of Jammu division).

Cherry tomato

SJCT01 (Jammu Cherry tomato 09)

- Cherry tomato variety SJCT-01 can set fruits in hot temperature between 35.0 - 40.0 °C and cold set fruiting at temperatures 10 - 15 °C.
- Field resistance to nematodes and shows moderately tolerant to fruit borer. SJCT 01 is early type of variety, gives first picking in 35 - 45 days, tolerant to insect pest and diseases in Jammu region.
- Suitable for cultivation under both open and protected conditions.
- Average fruit yield: 300 - 350 q/ha.
- Area of adoption: UT of J&K.

Radish

Radish 45 (CR 45)

- Yield of 350 q/ha.
- Tap root snow white in color and invariably shows root elongation of 30- 40 cm under optimum environment.
- Early in maturity, ready for marketing in 40-45 days.

- The variety is late bolting so provides a large buffer period for marketing to farmers.
- Area of adoption: UT of J&K.

Pecan nut

Jammu Pecan nut (SKJPP 25)

- It yields 48 kg/tree, oil content is 74.87 %, kernel weight is 6.41 g, nut weight is 8.08 g, shell thickness is 1.40 mm.
- High vitamin content (B1-0.67 mg/100g; B6 - 0.24 mg/100g; and B9 - 25.23 mg/100g).
- High mineral content (73.34 mg/100g Ca, 122.93 mg/100g Mg, 4.84 mg/100g Zn, 15.50 mg/100g Cu and 9.47 mg/100g Mn).
- It is free from walnut weevil.
- Area of adoption: UT of J&K.

Walnut

Bhushan (GL0 109)

- High yielding potential of 65±5.0 kg fruit nut per tree at age of 20± 1 year.
- Bears fruit in clusters of 2-5.
- Jumbo size fruit with thin shell and weak pad on suture.
- Numerical rating for export related traits 9.25 out of 10 (J&K Walnut Exporter Association).
- Red blush on fruit hull.
- Light brown kernel with recovery of 60±2.0%.
- Adaptation range in the high altitude of 1700±200 m.
- Tolerant to anthracnose, bearing habit intermediate and early maturing at lower elevation.
- Area of adoption: UT of J&K.

Rapeseed and Mustard

Raya: JM 13-5

- Average yield, 16-18 q/ha.
- Matures in 135-150 days.
- Resistant to lodging and moderately resistant to white rust and Alternaria blight.
- Area of adoption: UT of J&K (sub-tropical area of Jammu division).

Gobhi Sarson**JGS 12-3**

- Average yield, 16-18 q/ha.
- Matures in 140-160 days.
- Resistant to lodging and moderately resistant to white rust and Alternaria blight diseases.
- Area of adoption: UT of J&K (sub-tropical area of Jammu division).

Moong**JAUM 0936**

- Yield potential of 12-13 q/ha.
- Highly resistant to pod borer, YMV, web blight and leaf crinkle virus.
- Area of adoption: UT of J&K (Rainfed and irrigated areas of sub tropical regions of Jammu division).

Kagzi lime**Sel 1001**

- Flowering time: Mid-February and Mid-July to September.
- It bears flowers twice in year. Moreover, plants can tolerate more than 40°C under Kandi areas.
- Fruit surface: Smooth; Fruit colour, Yellow.
- Average number of fruits per tree/year (6 year): 280.
- Average fruit set per cent: 30%.
- Average yield: 15.00 kg/tree.
- Average fruit weight: 52.0 g.
- Area of adoption: UT of J&K (Kandi region of Jammu division).

University of Horticultural Sciences (UHS), Bagalkot

Jack Fruit**KJT 53(A-46)**

- Round shape fruits of family size (3.5 – 5.0 kg), red bulbs, very sweet (TSS- 28-30° Brix) with good overall acceptability.
- Fruit length (cm): 24.30 - 26.50.
- Fruit circumference (cm): 44.20 - 55.30.
- Fruit weight (kg): 03.60 - 05.60.

- No. of bulbs: 140.00 -160.00.
- Bulb colour: Orange with red tinge.
- Single bulb weight (g): 21.00-24.50.
- Edible portion (%): 37.50 - 44.44.
- Overall organoleptic score: 4.57/5.0.
- Yield (fruits/year): 50 – 60.

KJT 65(E-43)

- Gum less jack type, crispy and less wastage, Light yellow.
- Fruit length (cm): 31.00 - 38.50.
- Fruit circumference (cm): 58.20 - 62.50.
- Fruit weight (kg): 05.80 - 07.20.
- No. of bulbs: 170.00 -195.00.
- Bulb colour: Cream Yellow/Light Yellow.
- Single bulb weight (g): 32.00-34.00.
- Edible portion (%): 50.00 - 53.44.
- Overall organoleptic score: 4.44/5.0.
- Yield (fruits/year): 50 – 80.

KJT 85(C-119)

- Bold size (40-45g) round shaped sweet bulbs (26-28° Brix) with more pulp recovery good overall acceptability (yellow).
- Fruit length (cm): 35.50 to 40.20.
- Fruit circumference (cm): 63.50-65.50.
- Fruit weight (kg): 07.40-80.00.
- No. of bulbs: 148.00-160.00.
- Bulb colour: Yellow.
- Single bulb weight (g): 42.50-45.00.
- Edible portion (%): 56.25-62.16.
- Overall organoleptic score: 4.44-5.00.
- Yield (fruits/year): 60-80.

Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani

Three crop varieties of Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani have been notified in the Gazette of India. The notification SO 4065 includes safflower crop variety PBNS 184, sorghum variety Parbhani Shakti (PKV 1009) and desi cotton variety PA837 developed by the university. As per notification, PBNS 184 varieties of safflower are recommended for

sale in Maharashtra, Karnataka, Andhra Pradesh, Telangana state, and desi cotton variety PA 837 is recommended for sale in Andhra Pradesh, Telangana, Karnataka, Tamil Nadu while sorghum variety Parbhani Shakti (PVK 1009) is recommended for sale in Maharashtra. With this notification, the quality of the seeds of these varieties can be regulated and these seeds shall be sold for the purpose of agriculture in the recommended states.

PRODUCTS & PROCESSING

Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana

Technology for Preparation of Chhana Podo

Department of Dairy Technology, College of Dairy Science and Technology, GADVASU has developed the technology for preparation of Chhana podo (Baked Sweet cottage cheese). The product has good acceptability up to 21 days under refrigerated conditions. The developed technology is ready to transfer for the benefit of dairy farmers and budding entrepreneurs interested to start/developing their business venture.



UHS, Bagalkot

Jack Seed Powder Fortified

Ingredients required (per kg product):

Maize grits: 685 g, jackfruit seed flour: 90 g, tapioca/ sweet potato flour: 140 g, tomato powder: 45 g, onion powder: 20 g, masala powder: 13 g, salt: 7 g. Flour combination developed in the ratio mentioned above is subjected to extruder machine for obtaining fortified extruded product. This product can be

packed in polyethylene (LDPE, 100 gauge) pouches and stored for 6 months without any spoilage.

PACKAGE OF PRACTICES

SKNAU, Jobner

Following recommendations were included in the Package of Practices of Zone IIIa of Rajasthan state:

- For higher productivity and maximum net returns in wheat crop sown in Jaipur and Dausa area, 125 kg nitrogen + 25 kg P_2O_5 + 37 kg K_2O /ha is recommended.
- Two foliar sprays with fungicide Tebuconazole 50%+ Trifloxystrobin 25%WG @ 0.06 %, first at the initiation of the disease and second after 15 days interval can effectively control the yellow rust of wheat.
- Application of half of the recommended dose of zinc sulphate (on soil test basis) at the time of sowing followed by two foliar sprays of zinc sulphate @ 0.5% at flowering and early milk stage is recommended to increase the zinc content, productivity and farm profitability of barley.
- Two foliar sprays with fungicide Tebuconazole 50%+ Trifloxystrobin 25%WG @ 0.06 % or Picoxystrobin 7.05% + Propiconazole 11.7% SC @ 0.1 % first at the initiation of the disease and second after 15 days interval can effectively control the yellow rust of barley.
- For management of gram pod borer (*Helicoverpa armigera*) first spray of Chlorantraniliprole 18.5 SC @ 0.25 ML /liter at flowering stage and second spray after 15 days of first spray (if required) was found most effective.
- Basal application of 1 kg Boron (5 kg, 20% B) /ha followed by 1 foliar spray of 400 ppm Boron (2 g, 20.0% B/litre water) at flower initiation stage increased productivity of

lentil with maximum net returns and B: C ratio.

- For the management of root-knot nematode in brinjal (eggplant) and protective cultivation on tomato application of Fluopyram 34.48% SC at the rate of 0.625 ml/litre and equally dose apply in 10 plants or 1.25 litre/ha as soil drenching in root zone with 750-1,000 litres of water after seven weeks (21 days) from date of transplanting. This nematicide may also be used with drip irrigation.
- Foliar application of micronutrient mixture (Fe- 2.5 %, B- 0.50 %, Zn-3.0%, Cu-1.0 %, Mn- 1.0 %) @ 0.5 % at 30, 45 and 60 days after planting is recommended to increase the yield and net returns in onion seed crop for the farmers of this zone.
- Drip irrigation with water equal to 60 % of actual evaporation of this duration at 4-day interval along with fertigation of micronutrient fertilizers in fenugreek at 30, 50 and 70 days after sowing according to soil status of available micronutrient content is recommended for higher yield and economic returns from fenugreek crop.
- Soil application of 25 kg/ha iron sulphate, 15 kg/ha zinc sulphate, 35 kg/ha manganese sulphate and 10 kg/ha borax at the time of sowing along with three foliar sprays of 0.5% iron sulphate, 0.3% zinc sulphate, 0.5% manganese sulphate and 0.2% borax at 30, 50 and 70 days after sowing according to low micronutrient status in the soil is recommended for obtaining higher yield and returns in cumin crop. Micro nutrients solution for foliar spray should be neutralized with lime solution before spray with half concentration of micro nutrients fertilizer.

Following recommendations were included in the Package of Practices of Zone III b of Rajasthan state:

- Application of 75% RDF (60:30:30 kg NPK) + Foliar Spray of NPK 19:19:19 @ 2% at 50

days after sowing significantly increase the mustard yield over control.

- Seed treatment with *T. viride* + Fluorescence @ 3 g each/kg seed + soil application of these bio-agents @ 2.5 kg each /ha with FYM has found most economical and effective against root rot management in gram.
- Spray of Azoxystrobin 23% SC @ 1.0 ml/litre water was found most effective against Alternaria blight in mustard
- Basal application of RDF (80:40:40 kg NPK + 25 kg ZnSO₄) + 1 kg borax significantly increases the mustard yield in boron deficit soil.
- Spray of Tebuconazole 25.9 %EC @ 1.0 ml /litre was also found effective against Alternaria blight in mustard.
- Seed treatment with carboxin 37.5 % + Thiram 37.5 % @ 2 g / kg seed + soil application of *T. harzianum* @ 5 kg/ ha with FYM was found effective against root rot management in gram.

UHS, Bagalkot

Crop Production

- **Fertilizer application at different growth stages of Sapota**

In sapota Kalipatti variety, for above 8 year old plants application of N:P:K in July @ 80:128:90 g/plant/year followed by 80: 0: 80 g/plant /year during September, November and February + 15 kg vermicompost per tree in July + Foliar spray of micronutrient (Zn-0.6%, Fe-0.4%, Mn-0.2%, Cu-0.2%, B-0.2%) + soil application of Azotobacter @ 100g and phosphate solubilizing bacteria (PSB) @ 100g/tree during October results in getting higher yield.

- **Plant Density and method of planting in Garlic under Northern dry zone of Karnataka:** Garlic variety AAS 2 may be

sown on raised bed at a spacing of 15 × 2.5 cm to get higher yield.

Crop Protection

• Integrated Pest Management of Grape mealy bug

- **After April pruning:** Application of neem cake @ 250 kg/ha - drenching with Imidacloprid 17.8 SL @ 1000 ml/ ha through drip - spraying of Buprofezin 25% SC @ 1.25ml/l (750ml/ha)
- **After October pruning:** Drenching with Imidacloprid 17.8% SL @ 1000 ml/ha through drip-spraying of Buprofezin 25 %SC @ 1.25 ml/l (1250 ml/ha) - spraying of FORS @5ml/l (5 lit /ha)- spraying of Azadirachtin 10000 ppm @ 2ml/l (2 litre/ha)

- **Management of stem borer in jackfruit:** Injection of 10 ml solution of Chlorantriliprole @ 2.0 ml/l and sealing the hole with Bordeaux paste (10%)

Post-Harvest Management

• Extension of shelf life of jasmine flowers:

Shelf life of jasmine flowers can be extended up to 36 hours when flowers are treated with 5% boric acid (50 ml/kg of flowers) and packed in 60-micron biodegradable nano silver plastic film along with 5 g silica gel sachets and these packed flowers are kept in aluminum foil lined with 2.0 cm thickness thermocol box along with two layers of ice pads.

• Safe Storage of Seeds

- **Carrot seeds** packed in Aluminum foil or in EVOH hermetic bag can be stored up to 9 months in ambient condition and for 12 months in cold storage condition.
- **Fennel seeds** packed in aluminum foil or EVOH hermetic bag can be stored for 12 months under ambient condition and up to 15 months under cold storage condition with minimum germination (65%).

- **Methi seeds** packed in EVOH hermetic bag can be stored for 15 months and up to 18 months in aluminum foil under ambient condition and up to 21 months under cold storage condition with a minimum germination (70%).

B. ANIMAL and FISHERIES SCIENCES

Various technologies developed by Animal and Fisheries Sciences universities are given here.

GADVASU, Ludhiana

Double Threaded Intramedullary Pins for Canine Long Bone Fracture Fixation

Department of Veterinary Surgery and Radiology, College of Veterinary Science, GADVASU,

Ludhiana has indigenously designed an innovative double threaded



(stainless steel

and titanium) intramedullary pin for the repair of long bone fracture fixation in small animals. The implant has been designed under the research project Designing and evaluation of various configurations of threaded intramedullary pins for canine long bone fractures, funded by the Science and Engineering Research Board (SERB). The developed pin is a kind of best-fitting intramedullary implant and offers a viable alternative method of various long bone fractures in small animals, providing stability leading to better functional outcomes with reduced implant related complications.

Kerala Veterinary and Animal Sciences University (KVASU), Wayanad

Chaithra Ducks

Chaitra ducks are meat type ducks derived from Kuttanadan ducks, a unique duck breed of Kerala. At present excess males of Chara and Chemballi varieties of Kuttanadan ducks and spent ducks



are being used for meat purpose. Preliminary studies conducted at Centre for Advanced Studies in Poultry Science, Mannuthy showed that Kuttanad ducks have the genetic potential to develop further for meat purpose. Based on this, a research programme was started in 2012 at the University Poultry Farm, Mannuthy. With the financial assistance from the Department of Biotechnology, studies were continued at the Avian Research Station, Thiruvazhankunnu. The studies found that the ducks were able to gain up to 300 g additional body weight at 8 weeks of age and has got good meat properties. They can be reared in cages or at the backyard and are more adaptable to our climate and have better immunity.

TEACHING

AAU, Anand

PG Program on Agriculture Analytics

Anand Agricultural University launched a new master's program of 2 years in agriculture analytics from this year. This innovative, inclusive, multi-disciplinary and multi-institutional program is first of its kind in India where two other premier institutions namely Dhirubhai Ambani Institute of Information Technology (DAIICT), Gandhinagar and Indian

Institute of Remote Sensing (IIRS), Dehradun are its worthy partners. Program is conceived jointly by these 3 prime academic and R&D institutions, after year-long rigorous exercises, brain storming sessions and discussions at different levels. The MoU signed between DAIICT Gandhinagar and AAU Anand, has already been implemented from this year by admitting 1st batch. Admitted students are staying at different locations (DAIICT Gandhinagar, IIRS Dehradun, AAU Anand and Internship/Research location during their 4 semesters.

This multidisciplinary program is aimed at nurturing students with insights, and provide know-how to take agricultural sector into the future. The course is going to be an important leading step under NEP-2020 implementations, to promote HRD towards data-based decisions for improving income and key managerial/policy decisions towards farms/farmers/farming via sound agricultural data analytics. It introduces students to develop concepts of agricultural data analytics (descriptive, predictive, prescriptive) empowering them to eliminate speculative farming and usher in predominant age of predictive agriculture.



Newly admitted 1st batch of students of PG programme on Agriculture Analytics

Dr K. B. Kathiria, Vice Chancellor, AAU Anand said, "We believe in being proactive and farsighted for ongoing transformations and smart technology-based interventions in higher agricultural education by conceiving innovative and inclusive openings like this peculiar course; which remains a hard exertion from AAU, Anand, DAIICT Gandhinagar and IIRS Dehradun. Also, we expect that course is going to offer many new opportunities to scholars,

demonstrating it as a role model for its wider replications in other parts of the nation to facilitate and open new doors for NEP-2020 objectives". Dr M. K. Jhala, Director of Research and Dean PG studies and Dr G. R. Patel, Registrar have provided ample input towards this programme since initiation.

BAU, Ranchi

First Batch of B.Tech (Agricultural Engineering) Students



Passed out first batch student of B. Tech (Agricultural Engineering) with dignitaries

On 19 July 2022, the result distribution function for the students of first batch of College of Agricultural Engineering, Birsa Agricultural University was organized. On the occasion, Dr CR Mehta, Director, Central Institute of Agricultural Engineering, Bhopal presented the results of B. Tech in Agricultural Engineering to 37 successful students from the first batch of the college. Shubham Kumar was the topper of the first batch of the college, Bhuvneshwar Mahto secured second position and Megha Kumari third position.

This year 14 students of third and final year had cleared the Graduate Aptitude Test in Engineering Test (GATE) of which 6 students have taken admission in M.Tech. course of IIT, Kharagpur.

GADVASU, Ludhiana

Professors from Malaysia Teach Students

Dr Jalila Abu, Professor and Deputy Dean University Veterinary Teaching Hospital and Dr Hazilawati Hamzah, Associate Professor and

Deputy Dean from University Putra Malaysia were invited as international visiting professors under World Bank funded Institutional Development Plan (IDP), under National Agricultural Higher Education Project. Training was imparted to undergraduate students of College of Veterinary Science. Major objectives of this project are to enable productive academic international cooperation through Visiting Professorship by supporting the visits of international faculty in GADVASU to pursue undergraduate (UG) teaching and faculty training.



Visiting professor from Malaysia with GADVASU faculty

International Training for Undergraduate Fisheries Students

20 undergraduate (B.F.Sc.) students of College of Fisheries (CoF), got 2 weeks international training in International Centre of Excellence in Seafood Science and Innovation (ICE-SSI), Faculty of Agro-Industry at Prince of Songkla University (PSU), Hat Yai, Thailand. The training was sponsored under Institutional Development Plan (IDP) – National Agricultural Higher Education Project (NAHEP) of ICAR to augment professional competency of UG students through capacity building in national and international institutes of globally acclaimed academic excellence. Dr Prabjeet



Students at International training

Singh, Assistant Professor (Fisheries), played an instrumental role in earning this prestigious international training opportunity for the B.F.Sc. students.

KVASU, Wayanad

Renovated Library and Smart Class Room of College of Avian Sciences and Management



Smart Class rooms

The construction work of the second floor of the academic block of CASM was completed with the assistance of ₹180 lakh received under the plan scheme of the State Government. College library, smart classroom and feed quality processing lab have been set up. With the help of the National Agricultural Higher Education Project (NAHEP), Innovation Grant of Indian Council of Agriculture and Research, the necessary furnishing was made to make the floor fully operational. The facilities were inaugurated by Hon. Minister.



SKUAST, Jammu

- SKUAST-J CET (UG) Conducted on 11-09-2022.
- SKUAST-J CET (PG) Conducted on 13-09-2022.
- Courses offered for M.Tech., Ph.D., B.Sc. (Ag.), B.Tech Biotechnology, M.Sc. Agriculture.

Tamil Nadu Agricultural University (TNAU), Coimbatore

TNAU - Dalhousie Dual Degree Programme – An Interactive Meeting

An interaction meeting was organized on 08.07.2022 with Ms Anaha Pradeep Kumar, an alumnus of Agricultural College and Research



Institute, Madurai pursuing her masters in Dalhousie University, Canada. The Under Graduate students of Agricultural College and Research Institute and Community Science College and Research Institute, Madurai participated. Ms Anaha Pradeep Kumar briefed on the Dual Degree (TNAU - Dalhousie University) experiences with the students. She also interacted on the prospects of undergoing Post Graduate Programme in Dalhousie University, Canada with the aid from the ICAR-NAHEP – IDP funds. Dr P. P. Mahendran, Dean, Agricultural College and Research Institute, Madurai chaired this interactive meeting.

Diploma in Agricultural Engineering

A two-year Diploma in Agricultural Engineering course was inaugurated by the Vice Chancellor, Dr V. Geethalakshmi on 01.08.2022 at Agricultural



Engineering College and Research Institute (AEC&RI), TNAU, Kumulur. The Vice Chancellor emphasized that Diploma in Agricultural Engineering is instituted to generate employment and to take agricultural engineering to the grass root level. The students will be taught Farm Mechanization, Soil and Water Conservation, Food Processing, Renewable Energy Engineering, etc. Dr P.

Rajkumar, Dean, AEC&RI, Kumulur and Dr R. Lalitha, Professor and Head, (Soil and Water Conservation Engineering) felicitated the newly joined students.

Crash Course on Nanotechnology

A three days crash course on 'Applications of Nanotechnology' for the course teachers has been organized from

12.09.2022 to
4.09.2022 at
Centre for
Agricultural
Nanotechnology



(CANT), TNAU, Coimbatore. Ten teachers from constituent colleges and eleven teachers from affiliated colleges attended the course. Dr N. Venkatesa Palanichamy, Dean (Agriculture), TNAU, Coimbatore, inaugurated the crash course and enlightened the importance of the course in the current scenario. Dr K.S. Subramanian, Professor and Head as well as Organizing Secretary, CANT, briefed the course contents encompassing basics, synthesis, characterization, applications and biosafety.

EVENTS and ACTIVITIES

AAU, Anand

Workshop

MANNA: An Irrigation Intelligence Software

Training and Placement cell, College of Agricultural Engineering and Technology, AAU, Godhra, in association with Rivulis



Students attending the MANNA workshop
Irrigation India Private Limited, Vadodara has conducted one-day workshop on MANNA: An Irrigation Intelligence Software on 2 September

2022 for UG (Third Year) Students and Faculty. The workshop served as a demonstration of the first of its kind of a software by Rivulis and as the culmination of "Connecting the basic studies that can be done by the students at B. Tech level and how the same can be extended to the farmer through technological interventions", and also offering to the farmers or end users on using this software platform. The future challenges to address career scope in this field, was also highlighted.

Trainings

Training Programme on Seed Production

As a part of 'Azadi ka Amrit Mahotsav' and Platinum

Jubilee celebration of B. A. College of Agriculture, a training programme on Seed



Interaction of Scientist with participants on seed production

Production was organized under the guidance of Dr K. B. Kathiria, Vice Chancellor, AAU, Anand during 26 to 29 July 2022. Twenty- two farmers from Ahmedabad district of Gujarat participated in this training programme, covering various aspects viz., certified seed production in cereal, pulse, oil seed, vegetable and planting materials of fruit crops. Farmers were also acquainted with use of liquid biofertilizer, pest management during quality seed of flowers, medicinal and aromatic plants by different experts.

Training Programmes on Integrated Weed Management

Three-day training programmes on Integrated Weed Management were organised at AICRP on Weed Management, B. A. College of Agriculture, AAU, Anand during 25-27 July, 07-09 September, and 20-22 September 2022. A total of 96 farmers participated and got benefited regarding the concept and components of

integrated weed management. Shri D. D. Chaudhari, Jr. Agronomist and Dr B. D. Patel, Ex. Agronomist and PI, AICRP on Weed Management



explained different methods of weed management in various crops (organic and natural farming). Dr V. J. Patel, Professor and Head, Department of Agronomy, BACA, AAU, Anand delivered special lecture on identification of weed and also explained the time and method of application of different herbicides for the field crops with operational demonstration.

Training Programme on Organic Farming



Scientist delivering a lecture to the participants on organic farming

As a part of *Azadi ka Amrut Mahotsav* and Platinum Jubilee celebration of B. A. College of Agriculture, a training programme on Organic Farming was organized during 4 to 8 July 2022 under the guidance of Dr K. B. Kathiria, Vice Chancellor, AAU, Anand. Department of Agronomy, BACA, AAU, Anand. A total 24 farmers across the Gujarat state participated in this training programme. The programme covered various aspects viz. nutrient management, pest management, agronomical practices, cow-based farming, etc. by different subject experts from the AAU. Participation Certificates and liquid bio-fertilizer were distributed as training kit to the farmers at the end of training programme. The programme was effectively conducted by Dr V.

J. Patel, Professor and Head, Department of Agronomy, B. A. College of Agriculture.

On Campus Bakery Training

Bakery training courses were organized by School of Baking technology, Polytechnic in Food Science and Home Economics, AAU, Anand from 02-19 July 2022. Total 139 participants were trained in 4 courses each of 5-day duration. All the participants had hands-on training for fermented products along with other contemporary bakery products. Also, they learnt, how to prepare and bake bakery products at home as well as on commercial platform. Knowledge on different types of Cookies (nankhatai, farali biscuits, coconut biscuits, chocolate biscuits), milk bread, veg pizza, veg burger, veg puff, cupcake and sponge cake, etc. were disseminated by the faculties of bakery school.



Trainee participants along with Experts during the practical on bakery

fermented products along with other contemporary bakery products. Also, they learnt, how to prepare and bake bakery products at home as well as on commercial platform. Knowledge on different types of Cookies (nankhatai, farali biscuits, coconut biscuits, chocolate biscuits), milk bread, veg pizza, veg burger, veg puff, cupcake and sponge cake, etc. were disseminated by the faculties of bakery school.

Seminar/Symposium/Webinar

Modelling Techniques for Agricultural Applications

A two-day National Seminar on Modelling Techniques for

Agricultural Applications was

organized on 5 to 6

August 2022 Dignitaries on dais during national seminar at Anand Agricultural University, Anand in collaboration with the Department of Basic Sciences and Humanities, B. A. College of Agriculture and NAHEP-CAAST Project under World Bank Awarded Centre for Agricultural Market Intelligence. Dr R. K. George, Professor and Dean (R & D, IPR), IIST,



Thiruvananthapuram, Kerala was the Chief Guest and Keynote speaker of the inaugural function of this two-day National seminar. The resource persons in the seminar were Dr Avik Bhattacharya, Professor, IIT Bombay, Dr Dipak Misra, Professor and Head, Dept. of Avionics, IIST, Thiruvananthapuram; Dr Dharmendra Pandey Scientist and Dr Anand S. Sahadevan, Scientist, ISRO, Ahmedabad, Dr Manjusha Kulshreshtha Professor and Head, Dept. of Basic Sciences, BACA, AAU, Anand; Dr Mukesh Tiwari Asst. Professor and Head, Dept. of Soil and Water Conservation engineering, CAET, Godhara. They discussed about different existing Mathematical/Statistical/ Artificial Intelligence and Machine learning tools and technics to solve the problems related to agriculture. The methods to get the soil moisture data and various crop yield affecting factors through radar, remote sensing, hyperspectral remote sensing and ANN modeling were also discussed.

Exploring and Enlightening the Significance of Nutrition and Health

A webinar on exploring and enlightening the significance of nutrition and health was organized by Department of Biochemistry in collaboration with Indian Society of Agril. Biochemist on 21 July 2022 as a part of Platinum Jubilee of B. A. College of Agriculture under the guidance of Dr K. B. Kathiria, Vice Chancellor, AAU, Anand. Dr Y. M. Shukla, Principal and Dean, BACA delivered expert lecture in the technical session on the nutraceutical importance of the edible oils. Dr U. K. Kandolia, Associate Professor from JAU, Junagadh, gave a talk on the nutraceutical source and its role in human health. Dr Mahesh Mahtama, Principal Scientist, ICAR-NRC on Seed Spices, Ajmer, explained the Biotechnological Interventions for crop quality improvement and nutritional security. Dr Diwakar Singh, Assistant Professor, NAU, Navsari, elaborated about Millets as a tool to fight hidden hunger.

BAU, Ranchi

National Conference on Landscape Management for Preventing Flood and Reservoir Sedimentation

Indian Institute of Soil and Water Conservation, Dehradun under the joint aegis of Indian Association of Soil and Water Conservationists (IAS&WC), Dehradun; Birsa Agricultural University, Ranchi; Mahatma Gandhi Institute of Integrated Agricultural Research, Motihari and Indian Agricultural Research Institute, Hazaribagh organized National Conference on Landscape Management from 21-24 September 2022. Hon'ble Governor and Chancellor of the Universities, Jharkhand Sri Ramesh Bais inaugurated the 3-day National conference at BAU on 21st September 2022. He stressed on developing mechanism for accurate flood warning system and connecting seasonal and perennial rivers of the country as envisioned by late Shri AB Vajpayee. He said connecting of rivers of the country will reduce expenditure on managing droughts and flood to a greater extent. He further added that scientists should go to farmers door steps to understand their problems, conditions and priorities and provide improved technologies.

Dr Manish Ranjan, Secretary (Rural Development), GoJ, stressed on making soil and water conservation a mass movement and using latest IT technologies like artificial intelligence and machine learning.

Welcoming the guests, BAU Vice Chancellor, Dr O. N. Singh outline the major activities and achievements of the University and objectives of the national conference

During plenary session, Agriculture Secretary, Shri Abu Bakr Siddiqui and Vice Chancellor, BAU, Ranchi honored the scientists for Best Paper, Best Oral Paper, Best Poster Paper and Best Exhibition of the conference.

Society's President, Dr P. R. Ojashvi, and Secretary, Dr Devashish Mandal stressed upon the participation of policy makers, planners,

scientists, researchers and others stakeholders in the conservation and management of natural wealth.

About 400 delegates participated in the conference. Students and farmers of Hazaribagh also participated in the program.

Dr RPCAU, Pusa

Swachhata Pakhwada

The programme *Swachhata Pakhwada* was organized at Dr RPCAU, Pusa during 1-15 August 2022. The programme was inaugurated after

lightening of the lamp by the Dean and Professor Dr R. K. Jha. All the students, teaching and non-teaching staffs were present on the occasion. Dr Krishna Kumar, Vice Chancellor, Dr RPCAU, Pusa graced the event with his presence and addressed all the teaching and non-teaching staffs of the college.



Swachhata Pakhwada

Training

Two 26-day skill training programmes sponsored by the Government of Bihar on Service and Maintenance of Farm Machines, were successfully conducted during 15.07.2022 to 09.08.2022 and 25.07.2022 to 19.08.2022, respectively.

Seminar

- A Seminar was organized on **Punaruthan Ke liye Anusandhan** on 20/07/2022. On this occasion Sri Mukul Kanitkar, Trustee, Research for Resurgence Foundation and various other dignitaries delivered scholarly speech.

- Dr H. P. Singh, former DDG (Horticulture) delivered a lecture on Water Productivity enhancement for food and Nutritional security and livelihood options, on 16.08.2022 in Vidyapati Sabhagar.

U. P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura

World Rabies Day

DUVASU, Mathura celebrated world Rabies Day on 28 September 2022. A free anti rabies vaccination camp and health checkup camp for pets were organized by the Department of Veterinary Public Health, C.V.Sc., and A.H., DUVASU, Mathura. In this camp a total of 78 pet animals were vaccinated with anti-rabies vaccine. Folders and pamphlets were also distributed to create awareness among pet owners. Online National Quiz competition on World Rabies Day was also organized for the students. In this quiz competition 225 appeared from 22 different veterinary colleges across the India.

An informative lecture was delivered by Padma Shri Dr O. K. Bharti, State Epidemiologist, Shimla (HP). Lecture was based on change of WHO guidelines on rabies post exposure prophylaxis-experience sharing from local



to global. Padma Shri Dr O. K. Bharti mainly emphasized on intradermal route of anti-rabies vaccination in humans and use of rabies immunoglobulin (RIG) for local infiltration in wounds and even in minor scratches to prevent deaths due to rabies. The lecture was well appreciated by Vice Chancellor, Prof. A.K. Srivastava, DUVASU, Mathura. Internship, final year and 3rd year students keenly listened the lecture and actively participated in question session. Besides, deans, director and faculty members also attended the lecture.

Host-Microbiome Interaction in Augmenting Productivity of Ruminants

Brainstorming Session on Host-microbiome interaction in augmenting productivity of ruminants,

was
successfully
organized
on 24
August



2022 by Department of Veterinary Physiology, COVSc and AH. The session on theme lectures was Co-Chaired by Dr A.K. Tyagi, ADG, Animal Nutrition and Physiology and Dr A. Sahoo, Director, NRCC, Bikaner. Theme lectures were given by Dr C. Joshi, Director, Gujarat Biotech Research Center; Dr L.C. Chaudhary, IVRI; Dr PK Malik, NIANP, Bengaluru and Dr Brijesh Yadav, DUVASU, Mathura. The panel discussion was moderated by Prof (Dr) A.K. Srivastava, Vice Chancellor, DUVASU, Mathura. A total of 26 experts participated in the brainstorming session from nine different institutes of India.

Feeding Strategies in Ruminants for Healthy Milk and Green Environment

Brainstorming session on Feeding Strategies in Ruminants for Healthy Milk and Green Environment, was successfully



organized by Department of Animal Nutrition, COVSc and A. H., DUVASU, Mathura on 3 September 2022. All the theme papers were presented in session I, chaired Dr A. K. Tyagi, ADG, Animal Nutrition and Physiology, ICAR, New Delhi and Dr D. K. Sharma, Director, ICAR-CIRG, Makhdoom, Mathura. Session II was the panel discussion in which Prof. (Dr) A. K. Srivastava, Vice Chancellor, U.P. Veterinary University, Mathura Chaired the session and moderated the discussion among the panelist one by one followed by group discussion. The participants deliberated on the theme paper as well as pointed out the gaps in knowledge and possible solution to emergent problems.

GADVASU, Ludhiana

Pashu Palan Mela



S. Bhagwant Mann inaugurating the Pashu Palan Mela

Pashu Palan Mela was inaugurated on 23 September 2022 by S. Bhagwant Mann, Chief Minister of Punjab. S. Laljit Singh Bhullar, Minister Animal Husbandry, Fisheries and Dairy Development, Punjab also graced the occasion. S. Mann visited different stalls of GADVASU and showed keen interest to know about different species of Livestock. He conversed with different farmers and discussed farming issues. Dr Inderjeet Singh, Vice Chancellor, GADVASU said that diversification of livestock is the key factor to improve the income of the farmers. Theme slogan of this Mela was "*Vigiyan da fado larh, Sikhraan te jao charh*". He said that scientific interventions in the livestock profession are the need of the time. We are conducting a number of efforts to

explore the new avenues in livestock. He informed that these are very profitable venture if done in a scientific manner. Value addition of products also provides add on profit in comparison to traditional way of livestock farming. GADVASU showcased all its research, education and extension programmes at the Mela for the benefit of livestock farmers.

Workshops

Ethical Considerations in Scientific Writing



Participants of the workshop

A national workshop on Ethical Considerations in Scientific Writing, was jointly organized by the College of Animal Biotechnology (GADVASU) and the Association of Microbiologists of India, in online-physical (hybrid) mode. The workshop received an astounding response from the candidates. The candidates from 25 different institutes representing 13 states of the country viz. Uttar Pradesh, Haryana, Karnataka, Madhya Pradesh, Gujarat, Manipur, Tamil Nadu, West Bengal, Maharashtra, Goa and Delhi participated in the workshop. The three eminent experts namely Dr Sumeet Jain, Managing Director, NIPA Publishers, New Delhi; Dr Aruna T. Kumar, Former Editor, Indian Journal of Animal Sciences, ICAR, New Delhi, and Dr Ablesh Gautam, Assistant Director, CRI, Kasauli were invited for the workshop as respective representatives of Publisher, Editor and Scientist, the key nodes in scientific publications.

Pig Diseases and Health Management

College of Animal Biotechnology along with the Directorate of Extension Education, organized a workshop on Pig diseases and health management” to create awareness among

progressive pig farmers of Punjab. Lectures were delivered by Drs. Y P S. Malik, Satparkash Singh, Inderpal Kaur, Anuradha Sharma and Parminder Kaur on “Emerging Health Issues in Pigs”. Various infectious diseases, especially in the context of emerging African swine fever in the neighboring Uttarakhand state. Dr Jasbir Singh Bedi, Director, Centre of One Health, GADVASU delivered talk on “Zoonoses and Biosecurity Importance in Piggery” and emphasized the importance of adopting various biosecurity measures to get rid of various health problems and zoonoses in the piggery sector.



Participants of workshop on Pig disease and Health Management

Govind Ballabh Pant University of Agriculture and Technology (GBPUAT), Pantnagar

Trainings

Entrepreneurial Skill Enhancement Techniques for Economic Empowerment

A seven-day training programme on Entrepreneurial Skill Enhancement

Techniques for Economic Empowerment was organized in the College of Home Science jointly by the

Departments of Family Resource Management and Clothing and Textiles in collaboration with



Indian Council of Agricultural Research, New Delhi from 23-29 August 2022.

Internship Training Programme

Three months internship training programme on Production of value-added products for mushroom cultivation and nutritional security: Use of Nano-technological Intervention, funded by DBT, New Delhi under the Skill India Programme was organized by College of Basic Science and Humanities of the university from 12 September to 11 December 2022. This three-month training has been approved by the Agricultural Skill Council of India, in which 20 graduate trainees have been selected from Uttarakhand.

Workshop

Stress Relief Corporate Programme

A 10-day workshop on stress relief and corporate management was organized from 8 to 17 August 2022



in the College of Agri-business Management of the university. This workshop was organized by the Nirmal Corporate Programme in which the first-year students of the college participated enthusiastically.

Fundamentals of Programming Language with Python

The Academic Component of IDP-NAHEP Pantnagar, organized a 7-day workshop on Fundamentals of Programming Language with Python, from 16 August 2022. A total of 37 students attended the workshop in which the team of programmers of IDP-NAHEP conducted sessions to give insights to the students on basics of programming language starting with installation, syntax, operators, string manipulation and use of variables.

JAU, Junagadh

International Training of JAU Students at AIT, Bangkok, Thailand

Under the aegis of Institutional Development Plan (IDP), NAHEP, ICAR, 13 students of B. Tech (Agric. Egg.), College of Agricultural Engineering and Technology, JAU, Junagadh, have undergone two months



International training. It was held under the mentorship of Dr Manzul Hazarika, Director, Geoinformatics Center. The fundamental and practical aspects on python and google earth engine (GEE), Image Supervised and Unsupervised Classification with GEE, IoT, Arduino, Application of Remote Sensing, Large area mapping through drones, GPS, GNSS were covered in the training. The dedicated session on Drone Technology training and GIS software were also conducted.

Agri World Expo-2022

The Agri World Expo-2022 was organized by Spark Media Inco. in association with Junagadh Agricultural University, AMMA-India and GAMMA during 16 - 18 September 2022 at Shastri Maidan, Rajkot. In this event, new technologies, improved practices and latest information of private industries and government agencies as well as Junagadh Agricultural University were exhibited. A large number of farmers and other



Farmer's interaction with scientist at Expo-22

stakeholders visited the stalls and discussed with JAU scientists about improved practices to be adopted for better returns from their farms.

KVASU, Wayanad

'Niravu @ 12' - The 12th foundation day

Kerala Veterinary and Animal Sciences University celebrated its 12th Foundation Day - 'Niravu@12' at College of Avian Sciences and Management, Thiruvazhamkunnu. On this occasion the

University presented 12 projects to the society for uplifting the farming

community and those involved in animal

husbandry. The release of the said projects and the inauguration of the University Foundation Day

celebrations was done by Smt J. Chinchurani, State Minister for Animal Husbandry and Dairy Development and Pro-Chancellor, Kerala Veterinary and Animal Sciences University. The Minister lauded the various activities being carried out by the University for the upliftment of farmers engaged in animal husbandry in agricultural sector, and its achievements in various fields.

On the same day, a seminar was organized on Scientific Heifer Rearing- For Income and Progress, for farmers. The session was inaugurated by Prof. Dr T. S. Rajeev, Director of Entrepreneurship, Kerala Veterinary and Animal Sciences University. Dr A. Prasad, Associate Professor acted as the resource person for the session.



Dignitaries lighting the Lamp doing inauguration of Foundation Day



Details of some important programmes released during the foundation day are as follows:

Heifer Distribution Project: Availability of healthy heifers with good production potential is a major impediment in the dairy development of the state. As a part of the annual grant received from Indian Council of Agriculture and Research (ICAR) SC Sub Plan, 40 heifers and cattle feed produced by the University Feed Mill were distributed to the farmers belonging to Scheduled Caste engaged in cow rearing as a means of subsistence.



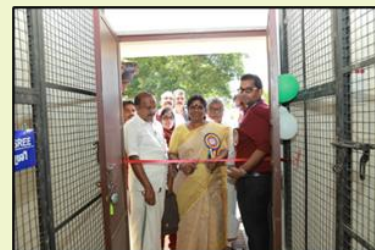
Smt. J. Chinchurani, Hon'ble Minister inaugurating the distribution of heifers

Projects of Rashtriya Krishi Vikas Yojana:

Various projects have been set up at Avian Research Station, Thiruvazhamkunnu using ₹ 410 lakh assistance received from Rashtriya

Krishi Vikas Yojana. As part of the farm expansion, 7 new modern sheds, a demonstration unit inside the

campus to introduce various breeds and varieties to the visitors, and a tank with a storage capacity of 1 lakh litre to ensure the availability of drinking water in the station, were constructed.



Silent Valley Global Farm Platform: India's first farm platform – Silent Valley Farm Platform– was established in 120 acres of land at Thiruvazhamkunnu campus of the Kerala Veterinary and Animal Sciences University for long term experimentation. A nano-watershed based approach was made in designing the Farm Platform with 12 farmlets in the 400-acre

campus of Livestock Research Station Thiruvazamkunnu of the University. The Global Farm Platform Network was established by 23

research institutions and 15 farms platforms distributed in the six



continents of the world for training the researchers, sharing the knowledge and developing technologies for finding out sustainable solutions to ruminant production through environment friendly land use. It is one of the prestigious research groups with International Livestock Research Institute, Kenya; Rothamsted Research, UK; EMBRAPA, Brazil; French Institute for Agricultural Research (INRA); Chinese Academy of Science; University of Wisconsin – Platteville, USA; University of Western Australia; University of Leeds, UK; etc. This is an example of the government of Kerala's new initiative on higher education and research facility creation supported through the state plan projects.

In Silent Valley Farm Platform, three methods are being practiced in different farmlets viz. organic production, the current scientific method, and an alternative method aimed at improved nutrient level of the animal produce. A group of 21 scientists of KVASU are involved in the project coordinated by Dr P. T. Suraj head of Livestock Research Station, Thiruvazamkunnu.

Farm Advisory Center: For providing advices and proper guidance to farmers, a Farm Advisory Centre was established



at Thiruvazhamkunnu campus through the state plan project of the Directorate of Farms, KVASU. The unit will provide advisory services

and trainings needed by the farmers according to their requirements. It will act as an extension unit of the Directorate of Farms.

Maharana Pratap Horticultural University (MHU), Karnal

XXIV AICRP Mushroom Workshop

Four Scientific Session in addition to Scientists-Farmers-Interface and Plenary Session conducted in the XXIV workshop of All India Coordinated Research Project on Mushroom

held at RMRC, Murthal during 11-12 July 2022. Dr A.K. Singh, DDG (Hort. Sci.), ICAR; Dr Samar



Dignitaries releasing a publication during workshop

Singh, Vice Chancellor, MHU, Karnal and Dr Rajendra Kumar Anayath, Vice Chancellor, DCRUST were the chief guests of the workshop. Dr V. P. Sharma, PC, AIRCPM and Director ICAR- Directorate of Mushroom Research (ICAR-DMR) highlighted the achievements of ICAR-DMR and AICRPM during the year 2021-22. Several session experts and scientists from different universities explained the importance of mushroom cultivation and interacted with farmers.

National Service Scheme Camp

National Science Scheme (NSS) camp was organized for a week (25-31 July 2022) in the village Padhana, Karnal, where students were taught about road safety rules, Red Cross, banking facilities, personal hygiene, water management, etc.



Students created awareness among villagers regarding *Beti Bachao Beti Padhao*, and *Swachh Bharat Abhiyan* through rallies. Students also gave their services to gaushala, anathalaya and went house to house for creating awareness regarding praudhsiksha.

Navsari Agricultural University (NAU), Navsari

Trainings

- On the occasion of World Bamboo Day, one week training programme on Bamboo Products, Farming and Propagation during 12-17



September 2022, followed by two days Bamboo Products Exhibition during 17-18 September 2022 was organized by College of Forestry, NAU, Navsari. Total 80 participants attended the said training programme. A new bamboo product Bamboo Straw was also launched by Vice Chancellor, Dr Z. P. Patel.

SKNAU, Jobner

The university organized following events:

- Platinum Jubilee Alumni Meet:** Platinum Jubilee Alumni Meet 2022, was organized on 4 September 2022 at SKN College of Agriculture, Jobner.
- Kisan Mela:** Krishi Vigyan Kendra, Dausa organized a Kisan mela under Jal Sakti Abhiyan on 08.09.2022 at Manpuria village, in which 279 farmers and farm women participated.
- Celebration of Poshan Mah:** All KVKs of SKNAU organized different activities focusing on nutrition of family members during Poshan Mah September 2022.

Activities like Awareness programme, Demo units on Nutri-garden, Off-campus trainings, Kisan gosthies, Advisories on balance nutrition, Establishment of nutri-garden, were organized specially for rural women. Vegetable seeds and fruit plants were also distributed to the participating women.

SKUAST, Jammu

Workshop

- Online workshop on IPR patents, designs, process under NIPM on 13 July 2022.
- One day Seminar organized by SKUAST-Jammu on Nano-Technology on 25 July 2022, with resource person Dr Swadesh Mukul Santra, from University of Central Florida, USA.
- National training programme on Recent advances in microbial diagnostics was organized w.e.f. 23-29 August 2022.
- Annual Group Meeting of AICRP Honeybee and Pollinators was organized on 08-09 September 2022.

Trainings

- KVK-Doda Organized 15-day Certificate course on Integrated Nutrient Management for input dealers w.e.f 29 August to 12 September 2022 at KVK campus in which 20 Trainees participated.
- 7-day Skill development programme on Production of quality planting material was organized at Centre of Excellence, Udheywalla from 27 July-2 August 2022.
- Conducted 4-week practical/on the job training for Farm ITIs trades of 25 trainees of two trades MAM and TM of ITI R. S. Pura.
- 19th Scientific Advisory Committee Meeting of KVK Jammu held at KVK Jammu on 23 September 2022 with 37 participants.

Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST), Kashmir

Tech Expo-2022

The Tech Expo-2022 organized by SKUAST-K at Ladakh under DST-STI Hub in collaboration with Krishi Vigyan Kendras, Ladakh was held at Eco-Cultural Park, Main Market, Leh on 7 September 2022, under the guidance of Vice Chancellor, SKUAST-K, Prof Nasir Ahmed Ganai. Around 35 stalls displaying variety of food products, handloom and handicraft products, agricultural tools and machineries were installed in the Tech Expo by different allied departments of agriculture and horticulture along with several self-help groups, agri-entrepreneurs and different KVK centres and research institutes like ICAR-CAZRI.



- Exhibition was held on the produce (latest varieties of fruit/crops/pulses/vegetables/IFA/ poultry and animals) on 11 August 2022, by the Faculty of Agriculture, SKUAST-K, in which 120 farmers 250 staff members and students participated.
- 2-week high end workshop on Application of molecular techniques in detection of plant pathogens infecting fruit crops, was organized from 14–28 July 2022 by the Faculty of Horticulture, sponsored by Serb DST under Karyashala Scheme, in which 25 students participated.
- High-end workshop (Karyashala) on Technological interventions for climate smart livestock farming, was organized from 18–25 July 2022 by the Faculty of Veterinary Science sponsored by SERB under Accelerate Vigyan Scheme, in which 27 PG and PhD students of SKUAST-K participated.

- National workshop was organized on Technological advances in livestock farming, on 22–23 July 2022 was jointly organized by the Faculty of Veterinary Science and National Institute of Animal Biotechnology (NIAB), Hyderabad in which 30 Faculty members participated.
- High-end workshop (Karyashala) on Ensuring food security and safety through research and development in livestock sector, was organized from 25 July - 1 August 2022, by the Faculty of Veterinary Science sponsored by SERB under Accelerate Vigyan Scheme in which 30 PG and Ph.D. students of SKUAST-K participated.
- SKUAST-K holds Mega Sports Festival: As a responsibility toward the overall personality development of students, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir organized a maiden Sports Festival at Sheikh ul Alam, Sports field Shalimar. Dr R. C. Agarwal, Deputy Director General (Education), ICAR, New Delhi and Prof. Nazir Ahmad Ganai, Vice Chancellor of the varsity inaugurated the mega event. In his address, Dr R. C. Agarwal expressed happiness to be part of the sports festival and wished that SKUAST-K students excel at national and international levels in all spheres of life. He congratulated the University for building huge infrastructure for curricular and co-curricular activities, offering an international-level learning ambience for the growth of students enabling them to transform challenges into success. Prof Ganai congratulated the event management committee for organizing such a wonderful event on the main campus. He said Universities play a special role in the sporting world where sports can be fully integrated into the education of today's and tomorrow's citizens. Dean Students Welfare, Prof MAA Siddique, threw light on the theme of the event – Addressing Drug

Challenges in Health and Humanitarian Crises. The festival witnessed huge participation from students and the staff. The event organizers (ASWOs and associated staff) thanked the university authorities for their support and guidance, and the participants for their interest and involvement in various sports activities. Dr Hina Shafi Bhat, Vice-Chairperson, JK Khadi Village Industries Board distributed trophies, medals and certificates among the participants in an impressive function held at FoA Wadura.



Trainings

- 2-week Hands-on training on Introduction to Python Programming learning for machine learning” was conducted from 1 July 2022, by the Center for Artificial Intelligence and Machine learning, in which 30 students participated.
- 3-day training cum demonstration program on Entrepreneurship Development among Schedule tribe communities through Harvest and Post-Harvest Management of Fishes, was conducted on 4–6 July 2022 by the Faculty of Fisheries in collaboration with ICAR-CIFT under TSP, in which 20 persons participated.
- 3-day Training Program on Handling and managing Bee Colonies, was organized on 20–22 September 2022 by Mountain Agriculture Research and Extension Station, SKUAST-K, in which unemployed youth and tribal Men and Women from Gurez participated.
- 10-day skill training on Mushroom Cultivation and compost preparation to tribal youth of Ladakh region, from 9–18 September 2022 was organized by the

Faculty of Agriculture in which 25 tribal people of Ladakh participated.

- 14-day food technology workshop on Advanced Skill Enhancement in the Development and Quality Characterization of Functional Foods using Extrusion Technology, was organized from 20 September– 3 October 2022. More than 25 MSc, M. Tech. and Ph.D. students from various universities of J&K participated. The workshop was organised by the Division of Food Sciences and Technology, SKUAST-K.
- 3-day training-cum-demonstration program on Technology dissemination for entrepreneurship by development through harvest and postharvest technology of fishes for ST population at Kangan, was organized on 8–10 August 2022 by the Faculty of Fisheries sponsored by ICAR-CIFT under TSP in which 20 persons participated.
- SKUAST-K and VAMNICOM Collaborative orientation Training Program on Agri – Export Marketing for cooperatives and FPO’s was jointly organized on 25–28 July 2022 by the faculty of Horticulture, SKUAST-K and VAMNICOM, Pune in which 30 Officials, Cooperatives and FPO’s of the UT participated.

Multi-Stakeholder Convention

A Multi-stakeholder Convention for Holistic Agriculture Development in J&K: Global Vision and Local Action, was held at SKICC.

Hon’ble Lt Governor of J&K, Shri Manoj Sinha, inaugurated the 2-day conference aimed at building innovative structures for holistic development of



agriculture and allied sectors in the UT with the help of renowned scientists and policy planners

of the country. The conference was jointly organised by the J&K Government's Agriculture Production Department, SKUAST-Jammu and SKUAST-Kashmir. On the occasion, the Lt Governor announced that a high-powered committee of agricultural scientists will be formed to prepare a futuristic roadmap for accelerated development of agriculture and allied sectors and making the farming viable, steady and sustainable. The LT Governor also appreciated the role of SKUAST-Jammu and SKUAST-Kashmir in providing mentoring and handholding to the farmers of J&K. Chief Secretary, Dr Arun Kumar Mehta, while speaking on the occasion enlisted the reforms introduced in the Agriculture and allied sectors and efforts being made by the administration to ensure that the benefits of the schemes envisaged by the government for the welfare of the farmers reach the rightful beneficiaries. Additional Chief Secretary, Agriculture Production Department, Shri Atal Dulloo, gave a briefing on the 2-day convention. He underscored the need of conducting an in-depth analysis of the achievements and challenges in the agriculture and allied sectors, besides focusing on the areas of unexplored opportunities in J&K. Vice-Chancellor, SKUAST-J, Prof J P Sharma, threw light on the prospects and potential of agriculture and allied sectors and highlighted the importance of diversification, value addition, and replicating good practices to yield favorable results for all the stakeholders associated with the sector. Vice Chancellor, SKUAST-K, Prof Nazir A Ganai, presented the roadmap of putting agriculture on a new trajectory of growth in J&K and transforming subsistence agriculture into a sustainable agri-economy through the investment of knowledge, technology and capital. Other distinguished speakers including Dr Mangala Rai, former DG, ICAR, Shri Ashok Dalwai, CEO NRAA, Ministry of Agriculture and Farmers Welfare, GoI and Dr H S Gupta, former Director, IARI also shared their thoughts on tapping the growth potential of the agriculture sector in the UT.

TNAU, Coimbatore

Sesame Farmer's Mela and Interactive Meeting

Sesame Farmer's Mela and Interactive Meeting sponsored by Indian Oilseeds and Produce Export Promotion Council (IOPEPC), Ministry of Commerce, Mumbai, was jointly organized by

Regional Research Station (RRS) as well as Krishi Vigyan Kendra, Vridhachalam along with



Indian Institute of Oilseeds Research (IIOR), Hyderabad on 11.08.2022 at Regional Research Station, Vridhachalam. Dr K. Subrahmaniyan, Director, Tamil Nadu Rice Research Institute, Aduthurai delivered presidential address and technical input to increase the sesame area in Tamil Nadu. Dr M. Sujatha, Director, IIOR, Hyderabad; Dr P.P. Murugan, Director (Extension Education), TNAU, Coimbatore; Mr. Ramesh Kolath, Deputy Chief Executive Officer, Mumbai; Dr Rajini Bisen, Project Coordinator, AICRP (Sesame), JNKVV, Jabalpur delivered felicitation address. Mr Gopi, Manager, ECGC Ltd (Government of India Enterprises) shared the opportunities in oilseed export in India. An interactive session with Virudhagireeswarar Collective Faming Farmer Producer Company was also organized. Dr M. Pandiyan, Professor and Head, RRS, Vridhachalam welcomed the gathering and emphasized the importance of oilseed crops. A technical booklet on groundnut and sesame, was released during the event. An exhibition of varieties and technologies released in groundnut and sesame, was also organized. Around 1020 farmers from Cuddalore, Thanjavur, Villupuram and Ariyalur district attended the Mela.

Parthenium Awareness Week

Parthenium Awareness Week was observed from 16 to 22 August 2022 by the AICRP Weed Management Unit, Department of Agronomy, TNAU, Coimbatore, to



create awareness among the policy makers, public, farmers, school and college students on the impact of the obnoxious weed parthenium (*Parthenium hysterophorus*). It was reiterated that a single plant can able to produce 10,000-25,000 seeds and 154,000 seeds/m² area which are viable for more than 10 years leading to severe ill effects to the human being, livestock and other crop yield losses.

A webinar on Ill Effects of Parthenium, was organized for farmers belonging to the different Farmers Producers Organizations of Coimbatore. The event was coordinated by the Isha Outreach team. A series of 'Parthenium Awareness Programme' was conducted along with Under Graduate, Post Graduate and Ph.D. scholars of TNAU. The students actively participated in eradicating the Parthenium in Eastern Block Farms of the University. The Coimbatore Corporation School students were sensitized about the Parthenium and prizes were distributed to the winners of essay competition. Farmers of Thondamuthur Block were sensitized about the Parthenium, and zygogramma beetles were released in the Parthenium infested areas. In addition, an awareness meeting was also organized at Sri Ranganathar Engineering College, Narasipuram. The Parthenium Awareness Week, activities were coordinated by Dr S. Panneerselvam, Professor and Head; Dr P. Murali Arthanari, Associate Professor (Agronomy) and Dr C. Bharathi, Assistant Professor (Soil Science).

Field Day on Dryland Fodder Production

A field day was organized at Agricultural Research Station, Kovilpatti under All India

Coordinated Research Project for Dryland Agriculture (AICRPDA) on 15.09.2022. The Chief Scientist (AICRPDA) as well as Professor and Head Dr K. Baskar presided over the function and highlighted the deficit of green fodder requirement could be decreased or compensated by raising fodder crops under rainfed condition during *kharif*. The fodder crops like fodder maize (variety - African tall), fodder sorghum (Multi-cut – CO(FS)31), Fodder cumbu (CO 8), Fodder cowpea (CO 8), etc. may be raised with the available rainfall during *kharif*. Dr G. Guru, Associate Professor (Agronomy); Dr S. Manoharan, Assistant Professor (Agronomy) and Dr M. Manikandan, Assistant Professor (Soil and Water Conservation) were present and handled technical sessions.

Workshops

Capacity Building on Genomics of Abiotic Stress

An International capacity building workshop on Genomics of Abiotic Stress in Crop Plants, was organized by the Centre for Plant Breeding and



Genetics (CPBG), TNAU, Coimbatore, in collaboration with United States India Educational Foundation (USIEF) and Indian Society of Plant Breeders (ISPB) from 29 June to 15 July 2022. Dr V. Geethalakshmi, Vice Chancellor, TNAU inaugurated the workshop and delivered presidential address. Dr Kalpalatha Melmaiee, Associate Professor, Delaware State University, USA and visiting Fulbright specialist briefed on the research activities in breeding for biotic stress tolerance at Delaware State University, USA. Dr R. Ravikesavan, Director (CPBG), sensitized the gathering about the workshop. Virtual lectures were delivered by international guest speakers from University of Florida, Delaware State

University, Rutgers University and specialists from National Institute of Plant Genome Research, New Delhi and Regional Centre for Biotechnology, Faridabad, Haryana. Research scholars from Department of Genetics and Plant Breeding and Department of Fruit science; Assistant Professors from the Departments of Rice, Pulses, Millets, Forages, Oilseeds, Genetics and Plant Breeding, Biotechnology, Plant Physiology, Fruit science, Plantation, Spices and Aromatic Crops, Medicinal and Aromatic Crops participated virtually. Dr S. Geetha, Professor and Head, Department of Pulses; Dr A. Subramanian, Professor (Plant Breeding and Genetics) and Dr B. Meenakumari, Assistant Professor (Plant Breeding and Genetics) coordinated the workshop.

Empowering Essential Employability Skills

- A Workshop on Empowering Essential Employability Skills, was organized at Agricultural College and Research Institute, Madurai on 11.07.2022 for the final year B.Sc. (Hons.) Agriculture students. The theme of the workshop was to prepare power packed resume and get ready to face any interview with more confidence. The students were also provided Group Discussion skills. Dr P.P. Mahendran, Dean, Agricultural College and Research Institute, Madurai inaugurated the workshop and distributed testimonials to participants. Dr K. Mahandrakumar, Professor and Head, Department of Agricultural Extension and Rural Sociology coordinated the workshop.
- The Placement cell of Agricultural College and Research Institute, Killikulam organized workshop on Enhancing Essential Employability Skills, to the Final Year Under Graduate and Post Graduate students on 11.07.2022 and 12.07.2022. Mr S. Nataraja Subramanian, CEO, Natraj Institute of Tamil Nadu Public Service Commission, Chennai was invited as Chief Guest. The Subject Matter Specialist from

the Natraj Institute invigorated on resume preparation, group discussion and personal interview. Dr T. Elenchezian, Assistant Professor (Agricultural Economics) and Dr M. Paramasivan, Assistant Professor (Pathology) coordinated the programme.

Career Guidance Workshops

Series of Career Guidance workshops on soft skill development and counselling were organized at Agricultural College and Research Institute,



Vazhavachanur on **A view of workshop** 12.07.2022 and 20.07.2022 for the benefit of third and final year B.Sc. (Hons.) Agriculture students. Dr N. Muthukrishnan, Dean highlighted the importance of developing soft skills among the students to select the right career and to reach professional heights. The invited speakers, Mr R. Kalaiyarasan, Branch Manager and Mr C. Janarthan, Team leader from RACE institute, Thiruvannamalai exposed the students to various employment avenues and demonstrated to write an impressive resume. Group Discussion and mock interviews were also conducted. The programme was coordinated by Dr S. Angles, Placement Officer, AC&RI, Vazhavachanur.

Data Analysis in Agricultural Extension Research

The Department of Agricultural Extension and Rural Sociology, Coimbatore organized a workshop on Data Analysis in Agricultural Extension Research on 29.07.2022. The Vice Chancellor of TNAU, Dr V. Geethalakshmi inaugurated the workshop and appealed the students for special drive to learn new softwares to identify extension problems precisely in variegated domains. Dr D. Suresh



Kumar, Director (CARDS) envisaged that the top ranking of the university is related to publications vis-a-vis application of software package in research. Dr A. Lakshmanan, Dean (SPGS) insisted the students to publish papers in high impact factor journals. Dr C. Karthikeyan, Professor and Head and Dr J. Venkata Pirabu, Professor (Agricultural Extension) organized the workshop.

Capacity Building on GKMS – Needs and Updates

The Agro Climate Research Centre (ACRC) of TNAU is the Principal Nodal Agency for weather monitoring and to provide bi-weekly weather



based agro advisories for the states of TN and Puducherry through the 9 Agro Meteorological Field Units (AMFU) and 11 District Agro Meteorological Units (DAMU) for the benefit of farmers. In view of enhancing the skills and capabilities of staff of AMFU and DAMU, a two-day capacity building workshop on Gramin Krishi Mausam Sewa (GKMS) – Needs and Updates, was organized by ACRC from 11 to 12.8.2022. The workshop was presided over by Dr V. Geethalakshmi, Vice Chancellor, TNAU and highlighted the importance of weather monitoring. She also emphasized the significance of AMFU located in different regions to provide support to the farmers in the event of climate change. Dr S.P. Ramanathan, Professor and Head, ACRC and the Principal Nodal Officer in his welcome address highlighted the roles and responsibilities of the weather observers in relation to farm productivity and the necessity of the capacity building programme.

The importance of weather forecast, methodologies and NDVI products were explained by Dr K.K. Singh, Head of Agrimet Division, India Meteorological Department, New Delhi. The 2-day programme covered the

practical aspects of meteorological observatory, forecast verification, methodologies involved in weather advisory preparation etc. A Tamil text book on “Agrometeorology” and two leaflets from Krishi Vigyan Kendra, Sirugamani were released during the inaugural function. Totally 40 participants consisting of Technical Officers, Subject Matter Specialists and Observers benefited.

Training

Pokkah Boeng Disease in Sugarcane

An awareness training programmes on Sugarcane Cultivation Technology with Special Emphasis on Pokkah Boeng Disease in Sugarcane, was organized by the Sugarcane Research Station,



Cuddalore for the contract farmers and cane officers of MRK Co-operative Sugar Mill, Cuddalore and Chengalrayan Co-operative Sugar Mill, Periyasevalai, Villupuram on 20.07.22 and 27.07.22 respectively. Awareness on the recently released clones (CoC 13339, CoG 7 ans Si 8) and management of pokkah boeng, disease was imparted with live demonstration. The scientists from Sugarcane Research Station, Cuddalore also visited Cheyyar Co-operative Sugar Mill, Cheyyar on 26.07.22 and Kallakuruchi II Co-operative Sugar Mill, Kachirayapalayam on 04.08.22 and provided training on the recent sugarcane varieties, soil health management, integrated nutrient management and integrated pest and disease management to farmers and cane officers.

University of Agricultural Sciences (UAS), Dharwad

Application of Drone Technology in Soybean and Groundnut

This project sponsored by M/s. Syngenta India

Ltd. Pune is in operation at UAS, Dharwad in soybean and Groundnut where insect pests and plant growth regulators problem is immense.



Demonstration of Kisan Drone in the management of Soybean crop pests

The project was launched by Vice Chancellor, UAS, Dharwad Dr R. Basavarajappa, accompanied by Member, Board of Management Shri Shashimouli Kulkarni, Associate Director of Research, Dr I. K. Kalappanavar, Associate Director of Extension, Dr P. S. Hugar, Comptroller, Shri. S. M. Honnalli, Farm Superintendent, Dr P. S. Tippannavar, AICRP scheme heads and Scientists of the University. In this project the pest control efficacy of insecticides, bio-stimulants and plant growth regulators with drone technology is being assessed. In addition to the control efficacy, other important aspects like impact of insecticide spray on beneficial insects, phytotoxicity effects on the crop, time taken and the cost economics of drone application of insecticides will be assessed said Chief Investigator of the Project, Dr G. Somanagouda. The major insect pests like defoliators and effects of plant growth regulators will be assessed in soybean and groundnut. This project helps in studying the suitability of drone application of insecticides in agriculture and its possible adaptation by the farmers.



Interaction with Scientists on use of Drones in Soybean Plant Protection

Training

Integrated Nutrient Management Certificate Course



Dr I. S. Katageri speaking during inauguration of Certificate Course in Integrated Nutrient Management Unit, UAS, Dharwad for input dealers.

Agriculture input dealers play an important role in Transfer of Technology to farmers said Director of Extension Dr I.S. Katageri. He was speaking inaugurating 15- day integrated nutrient management certificate course for the Agriculture Input Dealers of Haveri district in Staff Training Unit of UAS, Dharwad organized by SAMETI (N) in collaboration with Department of Soil Science and Agriculture Chemistry, Agriculture College, Dharwad, Department of Agriculture and MANAGE, Hyderabad. The transformation from ship to mouth to shipping for export is made possible through the efforts of agriculture scientists and Transfer of Technology by input dealers along with the efforts of the Department of Agriculture. However, we have to exercise caution in the use of chemical fertilizers and advise farmers to use chemical fertilizers judiciously.

Initially, Professor and Head, Staff Training Unit and Course Director, Dr Sunil V. Halakatti welcomed all the participants, and outlined the course syllabus as well as its implementation. Professor and State Nodal Officer, DAESI, Dr M. Gopala was also present. 28 Agriculture Input Dealers of Haveri district participated in this certificate course.

Conference

Post Graduate Research Conference

A 2-day Post Graduate Research Conference

2022 (PGRC-2022) was inaugurated by Vice Chancellor, Keladi Shivappa Nayaka University of Agricultural and Horticultural Sciences, Shivamogga Dr R. C. Jagadeesh, on 29 July 2022.

Vice Chancellor, University of Agricultural Sciences, Dharwad Dr R. Basavarajappa, presided over the inaugural function.

“There is a need in paradigm shift in Indian agriculture due to change in climate and rainfall pattern”, said former

Joint Director of Central Institute for Fisheries Education Dr Krishnan M. in his valedictory address of Post Graduate Research Conference held on 30.07.2022. Further, he stressed that there is lot of scope for agricultural students for conducting research in agriculture and allied enterprises with changing climatic condition. Country needs to formulate policies on agriculture keeping in view the availability of the resources and shift from growth to efficient growth in agriculture. He further stressed that there is need to relook at the policy interventions of the Government with respect to nutrition security and health sector.

Director of Extension Dr I. S. Katageri, in his presidential remarks said that PG students should be proud of their research results, which should be useful to the farmers. Further, he also stressed that Post graduate Research should be part of the University Research Programme. Post graduate conference is an excellent occasion for the student to get exposed to the latest research areas.



Vice Chancellor of Agriculture and Horticulture University, Shimoga Dr R.C. Jagadeesh Inaugurated two days postgraduate research conference



Students were encouraged by giving awards for Best Research Article Presentations on this occasion.

Students were encouraged by giving awards for Best Research Article Presentations on this occasion.

During this year, the Post Graduate Research Conference

(PGRC-2022),

330

postgraduate students doing research in the areas of crop improvement,

crop production, crop protection,

social sciences, community sciences and forestry sciences presented their research findings, through oral presentations (71) and poster presentations (259). The part of the research work completed was showcased by the students through Poster or Oral Presentations before researchers, professors, experts and other stakeholders.



Former Joint Director of Fisheries Education Institute, Dr M. Krishnan delivered valedictory address

UHS, Bagalkot

- 1-month Vocational course on Application of Drone Technology in Agriculture and Horticulture, under NAHEP-IDP Project, was conducted from 5 September 2022 at UHS, Bagalkot. Course Highlights were as follows: DGCA Approved Training Certificate, Drone Pilot Training with special focus on agricultural sprays, Remote sensing and data analysis, Practical flying session in fields, written and viva exam, and Flying practical exam. In total five students, five nominated faculty and three other members were trained in this course.



Practical training on Drone flying

Training

- Internship programme on Conceptual and Corporate Landscaping was conducted for final year undergraduate 14 students of COH Bidar at Bangalore International Airport Limited (BIAL) from 02.06.2022 to 21.06.2022. Students undergone both theoretical and practical sessions to learn different aspects of landscaping and its management.
- One-day online workshop and five-day residential Entrepreneurship Development Programme (EDP) workshop on Agri-Startup Ecosystem: Opportunities and Challenges, was organized for 2018 UG batch students to select for international training under NAHEP-IDP. The workshop was aimed to brainstorm the students on opportunities in entrepreneurship in agri start-up ecosystem in India and educate them on various focused areas. The faculty from MANAGE acted as resource person. Around 260 students across colleges attended online workshop whereas 120 students attended residential EDP training. In all 53 students presented their business plans of which 28 outstanding students were selected for international training.



was organized at VNMKV, Parbhani. Dr Indra Mani, Vice Chancellor presided over the function, while the former Vice Chancellor Dr V. K. Patil, MLA Smt. Meghnatai Bordikar; former MP, Suresh Jadhav; Mr. Rajendra Barwale Mahyco Pvt. Ltd. trustee; progressive farmer Shri Dada Lad;



Director of Instruction, Dr D.N. Gokhale; Director of Research, Dr D. P. Waskar; Director of Extension Education, Dr D. B. Deosarkar; Registrar, Dr D. R. Kadam; District Agriculture Officer, Mr. Vijay Lokhande attended the programme.

In his presidential address, Dr Indra Mani said that due to climate change, extreme weather conditions are causing huge losses to agriculture. To overcome this, technology is needed and it is time to do technology-based agriculture. In forthcoming days, technologies such as drone, robots, IoT, AI and other modern technologies will be widely used in the agriculture. The progress of the farmers means the progress of the country.

On this occasion, Progressive Farmer Mr Dada Lad who developed cotton cultivation technology based on his own experience, was honoured as a 'Farmer Fellow', while Young Farmer Mr Dattatray Kadam was honoured as a 'Innovative Farmer' and University faculty Dr Godavari Pawar, the first woman scientist of the university who received her post-doc degree from IARI, New Delhi was also felicitated.

On this occasion, technologies, developed by the university and drone spraying were also exhibited. The sale of seeds of various *rabi* crops developed by the university was

VNMKV, Parbhani

Rabi Farmers Meet

On the occasion of Marathwada Liberation Day (17 Sep 2022), Rabi Farmers Meet (Kisan Mela)

inaugurated by the dignitaries. About 2000 farmers attended the function.

Academic Management System (AMS)

Parbhani Vasant Rao Naik Marathwada Agricultural University (VNMAU), Parbhani launched online Academic Management System (AMS) developed by ICAR-IASRI,



New Delhi under NAHEP Component-2 project on 7 October 2022. The AMS was launched by Dr Indra Mani, Vice Chancellor of the University. Dr R.C. Agrawal, DDG (Agril. Education), ICAR, New Delhi attended the function as a chief guest. Whereas the other dignitaries Dr Sudip Marwaha, Head, Division of Computer Applications, IASRI, New Delhi; Dr D.N. Gokhale, Director of Instruction, Dr R.C. Goyal, IT Consultant and Associate Deans from constituent colleges attended the function both online and offline mode.

Dr Indra Mani stated in his presidential address that the online Academic Management System (AMS) will streamline the university's academic work and automate various academic activities. This will increase efficiency and transparency in university education system. The AMS includes curriculum management, student management, faculty management, e-learning and online fee collection.

DDG (Agric. Education), Dr R. C. Agrawal stated in his remarks that the AMS effectively implemented in VNMKV within record time. This will expedite the university's academic work. The system's scope will be expanded, and in coming future whole agricultural education in the country will be digitized.

My One Day for My Farmers

As per the directives of the Government of Maharashtra, the My One Day for My Farmers (*Majha Ek Divas Majha Baliraja Sathi*) campaign organized by Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani

(VNMKV, Parbhani), which was inaugurated on 1 September 2022 by Dr Indra Mani, Vice Chancellor. On this occasion, Vice Chancellor flagged off the vehicles of the university scientists at Parbhani Campus.

In this campaign, University's faculty, scientists working in Krishi Vigyan Kendra (KVKs), various Research Stations and Colleges were visited more

than 60 villages on 1 Sep 2022

and 64 villages on 3 Oct 2022 and spent whole day with the farmers. Scientists guided the farmers on various topics such as insect and disease management, *rabi* crop planning, present situation crop planning, digital farming, BBF technology, drone-based spraying, etc. Twenty-four (24) teams of university scientists were formed for the entire Marathwada region, and more than 80 scientists participated in the campaign. They guided more than 3,000 farmers of 124 villages. Under this initiative, Dr Indra Mani, Vice-Chancellor also visited villages.



Training on Quality Seed Production and Certification



One-week National Training programme on Quality Seed Production and Certification of field Crops was organized during 10 to 15 October 2022 by NAHEP-CAAST-DFSRDA, VNMKV, Parbhani. The training was organized for PG/Ph.D. students, faculty and officials of agriculture department, as well as scientists of the university. The main objective of the training was to enhance skills of students as

well as agricultural officers regarding seed production and opportunities in this sector. Dr Indra Mani, Vice Chancellor, VNMKV, Parbhani inaugurated the training programme, Dr Santosh Alse, Managing Director, Mahabeej, Akola, Dr D.N. Gokhale, Director of Instruction and Dean (F/A), Dr Vijay Mahajan, Director, ICAR-DOGR, Rajgurunagar, Dr Syed Ismail, Associate Dean and Principal and Mr. Madhukar Ghuge, Progressive farmer were present. In his presidential address, Dr Indra Mani said that the government, agriculture department, agricultural university, seed companies, and farmers need to work together to increase the quality seed production of varieties in demand.

Total 67 PG students attended the training programme and about 30 national level speakers delivered lectures regarding quality seed production and certification.

MOUs and TECHNOLOGIES COMMERCIALIZED

Dr RPCAU, Pusa

During the period between July to September 2022, following five MoUs were signed to promote inter-institutional collaboration for upgrading the quality of education and Research:

- A Memorandum of Understanding (MoU) was signed between Dr Rajendra Prasad Central Agricultural University, Pusa, Samastipur and Research for Resurgence Foundation, Nagpur on 20.07.2022.
- MoUs were also signed between Dr RPCAU, Pusa and Institute of Forest Productivity, Ranchi, Forest Research Centre for Eco-rehabilitation, Prayagraj, National Bureau of Agriculturally Important Microorganisms, Mau (UP) and Indian Institute of Sugarcane Research, Lucknow on 28.07.2022.

GADVASU, Ludhiana

Vet Varsity inks an Agreement for Pet Food Trials

An agreement was signed between GADVASU and M/s Reliance Industries Limited (RIL), Mumbai to utilize RIL plant-based protein biomass in pet foods. The agreement was inked by Dr J.P.S. Gill, Director Research and Dr Santanu Dasgupta, Senior Vice President at Reliance under the guidance of Dr Inderjeet Singh, Vice Chancellor, GADVASU. The microalgae-based biomass is used mainly as additives, both in balanced food and in supplements or snacks in pet food for dogs and cats. However, owing to its high protein content, fatty acids, antioxidants, vitamins, minerals, and fiber, it can be used as feed ingredients in pet diets. RIL will provide about ₹ 40 lakh as grant for this phase of research to conduct feeding trials for one year.

Vet Varsity signs MoU with Green Pockets



GADVASU and Green Pockets Private Limited signed an MoU for promoting income through adoption of livestock especially goat farming. The goat farmers of the state are facing many challenges in adopting goat farming on a commercial scale. So, both the establishments and farmers have joined hands to tackle the present bottlenecks in goateries and to make it sustainable. They were inspired by the idea of conservation, improvement and promotion of Beetal breed development in Punjab. Goat Farmers under Green Pockets can utilize various input services of GADVASU on nominal charges. Since the firm will maintain the network of goat farmers, it will be easy for GADVASU to conduct various adaptive field trials on the goats.

GBPUAT, Pantnagar

MoU signed with University and Indian Institute of Management, Kashipur

An MoU was signed between the Indian Institute of Management, Kashipur and the College of Agribusiness Management (CABM) in the university on 29 July 2022. The objective



of MoU is to create a long-term partnership to encourage student mobility, customized education and training workshops, faculty and student exchange, research collaboration for faculty, students, and start-ups. The partnership creates a consortium to solve the key agricultural problems and rural development challenges of Uttarakhand.

MHU, Karnal

MoU with Varaha Climate Ag Private Limited, Delhi

An MoU was signed between Maharana Pratap Horticultural University, Karnal and Varaha Climate Ag Private Limited (VCAPL), New Delhi to establish

a professional relationship and to promote and accelerate the programmes of Academic, Research, Extension and Training in the areas of mutual concern. Both parties would like to work together to achieve the common aim to develop diversified sustainable farming systems for improving productivity. The parties agreed that ICT-driven tools and technologies have an important role to play in Indian Horticulture and parties would like to work



Prof. Samar Singh, VC, MHU with officials of VCAPL at MoU signing ceremony

Research, Extension and Training in the areas of mutual concern. Both parties would like to work together to achieve the common aim to develop diversified sustainable farming systems for improving productivity. The parties agreed that ICT-driven tools and technologies have an important role to play in Indian Horticulture and parties would like to work

together for using the same to enhance decision making through accurate, reliable, and timely information for horticultural research and sharing with the farmers.

NAU, Navsari

- Navsari Agricultural University (NAU), Navsari signed an MoU with Rubber Research Institute of India (RRII), Kottayam on 05 July 2022. The MoU was signed by Dr T.R. Ahlawat,

Director of Research and



Dean PGS from NAU, Navsari and Dr Jessy M.D. from RRII, Kottayam in the solemn presence of Dr Z.P. Patel, Vice Chancellor, NAU, Navsari and Dr K. N. Raghavan, Executive Director of Rubber Board, Government of India. The MoU was signed to test the feasibility of rubber plantation in Gujarat for the same. The drought tolerant clones of rubber identified by the RRII, Kottayam was planted at Agricultural Experimentation Station (AES), Paria of the NAU. The plantation of rubber saplings was done by the Dr Z.P. Patel and Dr K. N. Raghavan and other scientists from NAU, Navsari, RRII, Kottayam on 06 July 2022.

- NAU, Navsari signed International Technology transfer MoU with Novel Holding Inc, USA on 10 August 2022. Agrinnovate India Ltd, ICAR, New Delhi acted as a facilitator for Technology Transfer. This the second International and 40th technology transfer MoU for Banana



Dr Z. P. Patel, VC, NAU exchanging MoU with authorities of Novel Holding Inc, USA

Pseudo stem-based Novel Organic liquid nutrients. Vice Chancellor Dr Z.P. Patel signed this MoU for commercial scale production and marketing of Novel for 35 countries of Americas. As per the MoU, Novel Holding Inc, USA Company will produce Novel in Americas to market it in USA, Canada, Mexico, Brazil and other part of the Americas.

SKUAST, Jammu

- Signed an MoU with Kansas State University, USA from 18.08.2022.
- Signed MoU with Himalayan Forest Research Institute Panthaghati, Shimla from 26.08.2022 to 25.08.2027.
- Signed MoU with IPB University, Bogor, West Java, Indonesia from 14.09.2022 to 13.09.2027.

SKUAST, Kashmir

The university signed following MoUs with different organization/agencies (industry, institutions, etc.)

- With Mir Agro, Lassipora on 17-08-2022.
- With Harshina Naturals J&K Pulwama, Lassipora on 16-08-2022.
- With H.N. Agri Serve Pvt. Ltd. on 12-08-2022.
- With Gulberb Cold chain, Lassipora, Pulwama on 20-07-2022.
- With Shaheen Agro Lassipora, Pulwama on 29-07-2022.
- With Valley Fresh Cold Chain Pvt. Ltd., on 08-08-2022.
- With Super Fresh Agri products, Lassipora, on 25-07-2022.
- With Al Noor Agri Fresh Lassipora, on 12-08-2022.
- With Green Tree Fresh Product Pvt. Ltd., Lassipora, on 18-08-2022.

- With University of Agricultural Science Dharwad, Karnataka, India on 28-08-2022.
- With ICAR-Directorate of Cold Water Fisheries Research Bhimtal, Nainital Uttarakhand on 05-08-2022.
- With ICICI foundation for inclusive growth on 23-08-2022.
- With Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya on 12-09-2022.
- With ICAR-Central Institute of Fisheries Education, Mumbai, Maharashtra on 20-09-2022.

TNAU, Coimbatore

Sub-Grant Agreement between TNAU and World Vegetable Center, Taiwan

The Centre for Plant Protection Studies, TNAU, Coimbatore and World Vegetable Center (WVC), Taiwan have entered into a Sub-Grant Agreement to do basic and applied plant protection research in Vegetable. The Sub-Grant Agreement was signed on 26.08.2022 in presence of Dr V. Geethalakshmi, Vice Chancellor of TNAU and Dr R. Srinivasan, Lead Entomologist and Flagship Program Leader for Safe and Sustainable Value Chains, World Vegetable Center, Taiwan. The Vice Chancellor, during her presidential address emphasized on the reputation of involving global organizations in technology development and quoted her experience on developing forecast models in collaboration with such institutions. Dr M. Shanthi, Director (Centre for Plant Protection Studies) narrated the road map of research activities under Sub-Grant agreement to combat the pest problems and also informed the gathering that farmers will be trained to adopt vegetable grafting technology through this project. Through this project 1600 farmers



will be benefitted by exposing them on sustainable integrated pest management. Dr R. Srinivasan, Lead Entomologist, World Vegetable Center, Taiwan briefed about the initiatives taken by the World Vegetable Center, Taiwan to manage the emerging insect pests and diseases in vegetables.

UHS, Bagalkot

MoU signed with Research and Collaborative Organizations by UHS, Bagalkot during July-Sep 2022

- BECIL, Government of India Enterprises, Bengaluru signed MoU for Professional service from 13.07.2022 till project completion.
- University of Agriculture in Krakow, Poland signed MoU for Teaching and Research from 22.06.2022 to 21.06.2027.
- Namrata Hempco limited, Bengaluru signed MoU for Research from 04.07.2022 to 03.07.2025.
- Anita Kulakarni and Veena Melligeri, Pakwann, Bagalkot signed MoU for Utilizing Horticulture Produce Processing Unit and Bakery Unit facility from 17.08.2022 to 16.08.2027.
- Waycool Foods and Products Private Limited, Chennai signed MoU for Research and Extension-Digitalize PoP, MLT, Farm trials, field visits from 24.08.2022 to 23.08.2025.
- Formitopia Private Limited, Bengaluru signed MoU for Digital crop models for crop production, protection and management, integrated crop production, sustainable farming precision advisory to farmers, entrepreneurial skills for students from 28.09.2022 to 27.09.2025.
- ICAR- Indian Institute of Horticultural Research (IIHR), Bengaluru signed MoU for Sale of Arka Seeds through Seed Vending Machine from 03.10.2022 to 02.10.2027.

PATENTS

JAU, Junagadh

Patent on Foldable Container for Storage and Transportation of Agricultural Produce

The Foldable Container for Storage and Transportation of Agricultural Produce (Patent No. 404866) was

developed under the AICRP on Plastic Engineering in Agriculture

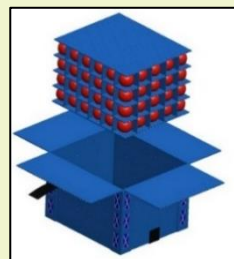


Structure and Environment Management, ICAR, Department of Renewable Energy Engineering, College of Agricultural

Engineering and Technology, Junagadh Agricultural University, Junagadh. This

unique invention was granted a patent by the Patent Office, Government of India on 29 August 2022

from 6 March 2013 for 20 years. This box is strong, light weight, long lasting, clean, good stacking and moisture free. Its cell can be adjusted according to fruit size,



Foldable Container

sheets can be separated to nullify impact damage of upper layer, perforation is provided for proper respiration. Use of this box can minimize transportation loss. The container is completely foldable and reusable, it is efficient in handling, transportation and storage of horticultural produce.

AWARDS and RECOGNITION

BAU, Ranchi

Fakhruddin Ali Ahmed National Award-2021



Fakhruddin Ali Ahmad Award -2021 received by Dr M. S. Mallick from Central Agril Minister Shri Narendra Singh Tomar. Dr M. S. Mallick, Dean (Forestry), and Project Investigator (NAHEP-CAST-IFS) of Birsa Agricultural University, Ranchi received Fakhruddin Ali Ahmed National Award-2021 for his outstanding contribution in promoting agricultural systems research among the tribal community towards the application of agricultural technology. This prestigious award was presented by the Union Agriculture and Farmers Welfare Minister Shri Narendra Singh Tomar during 94th Foundation Day of Indian Council of Agricultural Research (ICAR), New Delhi on 16 July 2022 in presence of Union Minister of Fisheries, Animal Husbandry and Dairy, Shri Parshottam Rupala, Union Minister of State for Agriculture and Farmers Welfare, Shri Kailash Choudhary, Secretary DARE and DG, ICAR Dr T. Mohapatra, and Member NITI Ayog, Dr Ramesh Chand.

Dr Mallick was award for expanding the overall facilitation of research of integrated farming systems among tribal farmers of Jharkhand state under the NAHEP-CAST-IFS project, operational at BAU, Ranchi. The team includes Dr Prabhat Kumar, National Coordinator, NAHEP-CAST-IFS Project, New Delhi and Dr Adayant Kumar, Research Associate, Ranchi Centre.

Dr RPCAU, Pusa

- Dr Dayaram and Dr Sudha Nandni, Mushroom Scientists were recognized and Pusa Centre of AICRP on Mushroom was awarded Certificate of Excellence by DDG (Horticulture), Dr A.K. Singh for outstanding contribution in extension activities in the Annual Group Meeting of AICRP on Mushroom organized by ICAR-DMR, Solan at RMRC, Murthal, Sonipat, Haryana during 11 -12 July 2022.
- The University has been placed at 9th rank among Government Universities in India under MDRA-India Today survey 2022.

GADVASU, Ludhiana

Academic Leadership Award to Dr Inderjeet Singh

Dr Inderjeet Singh, Vice Chancellor, GADVASU bestowed with the Academic Leadership Award at the India Animal Health Summit and Awards 2022.



Dr Singh was presented this leadership award for his exemplary contribution towards the growth and development of Animal Health and production. Shri Acharya Devvrat, the Governor of Gujarat presented this award during the maiden summit, organized by the Indian Chamber of Food and Agriculture at New Delhi.

Dr Inderjeet Singh, on National Expert Committee for Animal Husbandry and Dairying Sector

Dr Inderjeet Singh, Vice Chancellor, GADVASU was nominated as the member of National Advisory Committee for Animal Husbandry and

Dairying sector constituted by the Government of India. The committee under the chairmanship of Shri Parshottam Rupala, Union Minister of Fisheries, Animal Husbandry and Dairying is entrusted with the task of prescribing and advocating policies related to cattle and dairy development, feed and fodder, poultry, piggery, sheep, goat, animal health and other livestock components for giving a further positive flip to the livestock sector in India.



Vet Varsity Scientist earns Laurels at National Conference

Dr Gurjot Kaur Mavi, Scientist honored with Prof. Suresh S. Honnappagol- National Young Scientist Award for the best paper presentation on Effects of α -tocopherol addition in dog semen on sperm quality during *in vitro* storage. It was



Dr G. K. Mavi receiving the award

presented by Prof. Satish Kumar Garg, Vice Chancellor, Rajasthan University of Veterinary and Animal Sciences, Bikaner. She got the award at XVIII Annual Convention of Indian Society for Advancement of Canine Practice and National Symposium on Newer Concepts and Approaches in Small Animal Practice and Welfare organized by the Department of Veterinary Medicine, College of Veterinary and Animal Science, Navania, at Udaipur, Rajasthan.

Farmer FIRST Beneficiary gets Honour at National Level

S. Jagtar Singh an innovative farmer awarded at National level with Innovative Farmer Award for adopting Integrated-Framing-System (IFS); Agri-Horti-Dairy Model under the theme

Doubling Farmers Income, on the occasion of Foundation Day of ICAR-NAARM at Hyderabad.

The beneficiary farmer has been associated under Farmer FIRST Project since November 2016.

Initially he was cultivating only rice and wheat and was not earning much profit from this monoculture. After participation in this Project, he came across various technological interventions through awareness camps, scientist-farmer-interactions, training programs and exposure visits. By adopting Integrated-Framing-System he is getting good income round the year. He is growing horticultural crops in about 1.5 acre of land along with agricultural crops and dairy farming.



S. Jagtar Singh receiving the Award

Research.com Ranks GADVASU as Number One University

GADVASU placed number one university amongst 'Best Animal Science and Veterinary Universities in India' and number 213 globally in the 1st edition of Research.com ranking based on data collected from Microsoft Academic Graph. Microsoft Academic Graph is the most prominent and well-established bibliometric database of this type available to the scientific community. Position in the ranking is based on scientists' D-index (Discipline H-index), which only includes papers and citation values for an examined discipline for the faculty of a given university. The ranking process involved a detailed examination of 1,66,880 researchers' profiles from Microsoft Academic Graph. For the discipline of Animal Science and Veterinary, over 3,419 profiles were examined. Scientists from more than 525 institutions and affiliations were analysed.

GBPUAT, Pantnagar

University Honoured with Outlook Agritech Summit and Swaraj Awards 2022

Pantnagar University was awarded the 'Outlook Agritech Summit and Swaraj Awards 2022' as an Institute of Excellence for its unprecedented work in the field of agriculture. On the occasion, the CEO, Outlook magazine, Indranil Roy;



Editor of Outlook Hindi, Giridhar Jha; were present. Dr Anil Kumar Sharma, Director, Extension Education, GBPUAT received the award from Union Agriculture Minister, Shri Narendra Singh Tomar, in the function organized at NASC Complex, New Delhi.

Maharashtra Animal and Fishery Sciences University (MAFSU), Nagpur

Research Leadership Award to Dr A. M. Paturkar

The Vice Chancellor of Maharashtra Animal and Fishery Sciences University, Nagpur. Col. Dr Ashish Paturkar is awarded with prestigious Research Leadership Award in India Animal Health Summit 2022

organized by Indian Chamber of Food and Agriculture and Dept. of Animal Husbandry and Dairying, New Delhi. He received the award at the hands of Acharya Devvrat, Hon'ble Governor of Gujrat in a programme held at New Delhi on 7 July 2022. The summit was inaugurated by Central Animal Husbandry Minister Shri Parshottam Rupala.



Col. Dr Ashish Paturkar, Vice Chancellor, MAFSU receiving the Research Leadership Award at the hands of Acharya Devvrat, Hon'ble Governor of Gujrat

The Research Leadership Award is given every year to a scientist having significant contribution in the field of Animal Husbandry. The award for 2022 was bestowed upon Dr Paturkar for his impactful research contribution in the field of food hygiene and Veterinary Public Health. Being a scientist Dr Paturkar handled more than 25 research projects funded by World Bank, Department of Science and Technology, Bhabha Atomic Research Centre etc. He was also nominated by World Health Organization as an expert review member to formulate standards of antibiotic residues in the food of animal origin.

NSS Volunteer of MAFSU, bagged National Level Best Volunteer Award

The volunteer of National Service Scheme (NSS) of Nagpur Veterinary College, Nagpur affiliated to Maharashtra Animal and Fishery Sciences University, Nagpur, Mr Divesh Ginnare bagged National level Best Volunteer Award. He received the award in a function held at Rashtrapati Bhavan, New Delhi at the hands of Hon'ble President of India Smt Draupadi Murmu on 24 September 2022. Divesh has become the first student in India from Veterinary Science course to bag the award. He got this award for outstanding social service rendered under NSS. He immensely contributed to the society during COVID period. Previously he was awarded with Best NSS volunteer of Maharashtra State.



Mr. Divesh Ginnare receiving National level Best NSS Volunteer Award at the hands of Hon'ble President of India Mrs Draupadi Murmu

NAU, Navsari

Dr Divyesh D. Patel, Professor (Agronomy) received Prof. Y. K. Bhushan Most Influential Professor Award during the World Education Congress held at Taj Lands' End Hotel, Mumbai on 7 July 2022.

**SKNAU, Jobner**

Diamond Achievers Award was conferred on Dr Raghvendra Porwal, Associate Professor (Horticulture) of KVK Ajmer on 11 September 2022 by the Council for Academic Performance and Appraisal, New Delhi.

SKUAST, Jammu

- Vice Chancellor, SKUAST-J, Prof J.P. Sharma was nominated as APEX Committee Member for Modernizing Agriculture and Allied Sectors of J&K U.T. along with Vice Chancellor SKUAST-K, Shri Atal Dalloo, Additional Chief Secretary, APD, Dr H.S. Gupta Former Director, IARI, Dr Prabhat Kumar Horticulture Commissioner, Government of India, Dr Ashok Dalwai, CEO, National Rainfed Area Authority with Dr Mangala Rai Former DG, ICAR as Chairman of APEX Committee.



Dr Mangala Rai led APEX Body Meeting

- Certificates of Appreciation to KVK Jammu and KVK Somba in Regional Conference on Specialty Agriculture in the context of farm economy of Himalayan Region, organized by Division of Agricultural Economics and

Agri-Business Management, SKUAST-J in collaboration with Indian Society of Agricultural Economics, Mumbai on 21-22 September 2022.

- Best Presentation Award to Dr Prem Kumar in Regional Conference on Specialty Agriculture in the context of farm economy of Himalayan Region, organized by Division of Agricultural Economics and Agri-Business Management, SKUAST-J in collaboration with Indian Society of Agricultural Economics, Mumbai on 21-22 September 2022.
- Dr Ghanshyam N Jha, Scientist (SS)-Fisheries of KVK-Doda received International Academy of Science and Research (IASR)-Kolkata, Fellowship Award on 4 August 2022.
- Dr Mahital Jamwal, Associate Director of Research, was awarded scholarship for 2022 International Workshop on Agritourism by the University of Vermont, Vermont Tourism Research Center, Burlington, Vermont, USA and attended through virtual mode from 30 August – 1 September 2022.
- Certificate of Appreciation received from National Intellectual Property Awareness Mission (NIPAM), Ministry of Commerce and Industry, GoI, for organizing workshop on IPR patents, designs, process under NIPM on 13 July 2022.

SKUAST, Kashmir

- SKUAST-K promoted 'SmartFish' bags**
National 'Big Fish Pool' Startup Grant: A Kashmir-based startup idea 'SmartFish' by Falak Jain and Naveed Hamid from SKUAST-K, which aims to automate



aquaculture with the help of IoT, has been declared the winner at the national level 'Big Fish Pool' startup event and has been awarded ₹ 3.5 lakh grant.

- SKUAST-HMAARI (Leh) was awarded Best Exhibition Stall under Govt./Research Institution Category in Ladakh Agri-Tech Mela-20252, held on 10-11 August 2022.
- Dr Nadeem Shabir, Scientist, Faculty of Veterinary Sciences, SKUAST-K has been appointed to the board of reviewers by the society of innovation and entrepreneurship IIT Bombay, as the technical expert to review Animal Health based startups.
- Dr R K Sharma, Scientist, College of Temperate Sericulture, SKUAST-K was awarded by Lefroy Medal by the Zoological Society of India.
- Dr M. Muzammil Scientist, College of Agricultural Engineering, SKUAST-K was awarded 3rd prize in National level Azadi ka Amrit Mohatsav essay competition by Baer and BKS in collaboration with ICAR, New Delhi.
- Dr Tasaduq Hussain Shah, Scientist, Faculty of Fisheries, SKUAST-K was awarded with the Best Extension Scientist Award-2022 by Society of Life Sciences and Fisheries, Karnataka.
- Sonober Zehra Rizvi, Student, Faculty of Forestry was awarded Inspire Fellowship by DST, Govt. of India for pursuing PhD degree program.
- Sairah Jabeen Leharwal and Namaira Shabir B.Sc. Students of Faculty of Horticulture were awarded best team SKUAST Kashmir and Best speaker 2nd and 3rd respectively by the Indian Institute of Public Administration during IIPA annual debate competition to the theme: Keyboard learning is not an alternative to formal education, held at University of Kashmir, Srinagar.
- Dr Zubair A Akhoun, PhD student Faculty of Veterinary Sciences and Animal Husbandry was awarded the Best Thesis

Award from the Samarga Vikas Welfare Society.

- Ms Shiba Zahoor, a doctoral student at SKUAST-K's Faculty of Forestry, bagged Young Scientist Award in the National Seminar on Recent Advances in Science and Technology for Agriculture Sustainability held on 5- 6 July 2022, at the Central University of Kashmir in association with Science and Engineering Research Board (SERB), DST, Government of India.
- Naveed Hamid, BDA IDP SKUAST Kashmir has been nominated for **Young Incubation Mentor Award**, by Entrepreneurship Global Triumph Foundation in association with Ministry of Culture, Govt. of India Bengaluru on 14 September 2022, for his novel contribution and tangible outcomes in field of innovation, incubation and Entrepreneurship.
- Naveed Hamid, BDA, got Agri Tourism Business Mentor Award, by Parbhanna Foundation and Maharashtra State Tourism Department during National Tourism Film Festival-2022 on 27 September 2022.
- Dr Shakil Bhat won a post-doctorate fellowship from the University of California's Davis' Animal Sciences Department, USA. Dr Shakil recently completed his PhD



programme from the Division of Animal Biotechnology, Faculty of Veterinary Sciences and Animal Husbandry, SKUAST-K with 25 high-impact publications in peer-reviewed journals like Plos One, BMC Genomics, Frontiers in Genetics and Nature Scientific Communications, etc. Working under the mentorship of Prof S Mudasir Andabi, Prof. Riaz A Shah and Prof Nazir A Ganai (Vice Chancellor, SKUAST-K), Dr Shakil recently defended his thesis titled Transcriptomic and Proteomic profile of

Bovine milk in Indigenous and Jersey Cattle of Kashmir Valley for Milk Quality Traits.

TNAU, Coimbatore

TNAU Won ICAR's Sardar Patel Outstanding University Award

For the year 2021, ICAR conferred the Sardar Patel Outstanding ICAR Institution Award to Tamil Nadu Agricultural University, Coimbatore

based on its outstanding performance in teaching, research and extension



activities. TNAU students have outperformed other SAU's by securing 374 national level fellowships during the assessment period. TNAU remained at the top among the 71 Central Agricultural Universities / State Agricultural Universities and ICAR Deemed Universities in attracting the students for higher education. In research, TNAU has released 74 improved crop varieties and published around 2000 SCOPUS index scientific papers during the period of assessment. TNAU excelled in its outreach activities even during the pandemic period by delivering technologies to about 6 lakh farmers. All these efforts empowered TNAU to clinch this prestigious award of ICAR.

Institution of Excellence Award 2021 to TNAU

Tamil Nadu Agricultural University has been conferred with INSTITUTION OF EXCELLENCE AWARD – 2021 by All India Agricultural Students Association (AIASA). The award was presented on the occasion of International Conference on Advances in Agriculture and Food System towards Sustainable Development Goals (AAFS-2022) held on 22.08.2022 which was jointly organized by University of Agricultural Sciences, Bengaluru; All India

Agricultural Students Association and Indian Council of Agricultural Research at University of Agricultural Sciences, Bengaluru (Karnataka). The contribution made by the Tamil Nadu Agricultural University towards educating more than 6,000 students every year in agriculture and allied disciplines, developing 850 varieties and 1,500 technologies that facilitated to augment the food grain production by more than 120 lakh ton in Tamil Nadu was recognized and acknowledged.

IFFCO-MC Hackathon Prize bagged by TNAU Students

Indian Farmers Fertilizer Cooperative Limited - Mitsubishi Corporation (IFFCO-MC) Crop Science conducted

Hackathon program at national level for improving or building a new software program to address issues on the supply



chain related to the agro-chemicals. The students of M.Sc. (Agriculture) Bioinformatics - Team Alpha Arrays (Mr J. Infant Richard, Ms S. Divya, Mr S. Dilipraj, Ms R. Anitha and Ms K.K. Pavitra) and MBA (Agri Business Management) - Team Apple Bearers (Mr N. Sivavishnu, Mr K.S. Vishwa, Mr S.P. Dijendragowda and Mr T. Vijay) bagged the second place and third places and awarded the cash reward of ₹ 50,000 and ₹ 30,000, respectively.

RESEARCH PUBLICATIONS
(≥12 NAAS RATING)

BAU, Ranchi

P. Chakraborty, S. Sarkar, S. Mondal, B.K. Agarwal, Arvind Kumar, S. Bhattacharya, S.S. Bhattacharya, P. Bhattacharyya (2022). Eisenia fetida mediated vermin-transformation of tannery waste sludge into value added eco-friendly product: An insight on microbial

diversity, enzyme activation and mental detoxification. *Journal of Cleaner Production* **348**: 131368, pp 1-13. (NAAS rating – 15.3).

Reshma Shinde, D.K. Shahi, P. Mahapatra, C.S. Singh, S.K. Naik, N.K. Tombare and A.K. Singh (2022). Potential of lignocellulose degrading microorganisms for agricultural residue decomposition in soil. *Journal of Environmental Management* **320**:115843. (NAAS Rating – 12.79)

GBPUAT, Pantnagar

Kabali Vijai Anand, Munuswamy Reshma, Malaichamy Kannan, Sekaran Muthamil Selvan, Sumit Chaturvedi, Ahmed Esmail Shalan, Kasivelu Govindaraju (2021) Preparation and characterization of calcium oxide nanoparticles from marine molluscan shell waste as nutrient source for plant growth. *Journal of Nanostructure in Chemistry* **11** (3): 409-422. (NAAS Rating-14.00)

SKUAST, Kashmir

- Rubiya Rashid, F. A. Masoodi, Sajad Mohd Wani, Shaziya Manzoor, Amir Gull (2022). Ultrasound assisted extraction of bioactive compounds from pomegranate peel, their nanoencapsulation and application for improvement in shelf- life extension of edible oils. *Food Chemistry* **385**: 13260. (NAAS Rating 15.23)
- Zehra, A.; S. M. Wani; Bhat, T. A.; Jan, N.; Hussain, S. Z.; Naik, H. R. (2022). Preparation of a biodegradable chitosan packaging film based on zinc oxide, calcium chloride, nano clay and poly ethylene glycol incorporated with thyme oil for shelf-life prolongation of sweet cherry. *International Journal of Biological Macromolecules* **217**: 572-582. (NAAS Rating - 14.02)
- Rashid, R.; S. M. Wani; Manzoor, S.; Masoodi, F. A.; Dar, M. M. (2022). Green extraction of bioactive compounds from apple pomace by ultrasound assisted

natural deep eutectic solvent extraction: optimisation, comparison and bioactivity. *Food Chemistry*, 133871. (NAAS Rating - 15.23)

- Nusrat Jan, Sadaf Anjum, Sajad M. Wani, Sajad A. Mir, A R. Malik, Sajad A. Wani, Dina S. Hussein, Rabab Rasheed, Mansour K. Gatasheh (2022). Influence of Canning and Storage on Physicochemical, Antioxidant Properties and Bioactive Compounds of Apricot (*Prunus armeniaca* L.) Wholes, Halves, and Pulp. *Frontiers in Nutrition*, doi.10.3389/fnut.2022.850730. (NAAS Rating - 12.59)

LIMELIGHTS

AAU, Anand

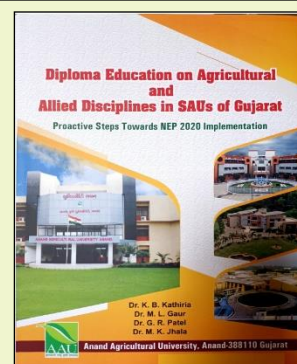
National Level Release of Book on Diploma Education from AAU, Anand

An innovative policy-based book namely Diploma Education on Agricultural and Allied Disciplines: Pioneering Practices in Gujarat, Authored by Dr K. B. Kathiria, Dr M. L. Gaur, Dr G. R. Patel and Dr M. K. Jhala published by



Agricultural University, Anand, Gujarat was released by Union Minister of Agriculture and Farmers Shri Narendra Singh Tomar in presence of Union Cabinet Minister of Fisheries Animal

Husbandry and Dairying, Shri Parshottam Rupala, Union Minister of State for Agriculture and Farmers' Welfare Shri Kailash Joshi, Secretary DARE and DG ICAR, Member NITI Aayog and other dignitaries during 94th ICAR Day Celebration at New Delhi on 16-07-2022.



Dr K. B. Kathiria, Vice Chancellor AAU, Anand attended this graceful ceremony. The book presents a comprehensive account of information on pioneering ways of imparting diploma based agricultural education in agricultural and allied disciplines. Book consists results, information, interpretations, and propositions; which are arrived after extensive dedicated efforts on retrieving detailed reliable information, its conceptualization/compilation and critical analysis cutting across 21 polytechnics (under 4 SAUs of Gujarat). It involves 7 specific chapters based upon a template-based quality information data base. This publication from AAU will certainly prove as an asset for subject experts, policy planners, academicians, scholars, field functionaries and general public too for promoting their young kids to generate attraction towards polytechnics-based programs and contributing in smart forms of agriculture cutting across subjects and other traditional barriers.

International Agribusiness Management Institute of AAU bags 100 percent Placements

Students from the International Agribusiness Management Institute (IABMI) of Anand Agricultural University has maintained its track record of providing hundred percent placements to the students since its inception in 2008. This

year 12 companies in the broad area of agribusiness provided placements



IABMI students selected for placements

to the students. The placements were completed in two phases. Sixty percent of the students were selected during the first phase in the month of February and the rest in the other stage. 30 students out of 36 were selected by the industry, and 5 students got jobs in the government sector while one student opted for

entrepreneurship in agribusiness. The average pay package for the batch was about ₹ 5 lakh per annum. Export Trading Group gave International Placements to two students with a package of around ₹15 lakhs per annum. These students, namely, Ms Deepika and Mr Ronak Patel were selected in the South African countries, viz. Tanzania and Mozambique, respectively. Other top recruiters include HDFC Ltd., PI Industries, Reliance Retail, Tirth Agro Technology Pvt. Ltd, Impagro Farming Solution Pvt Ltd.

BAU, Ranchi

Amrit Mahotsav Fortnight

Under the National Service Scheme (NSS) at Birsa Agricultural University, Azadi ka Amrit Mahotsav

fortnight was organized from 01 to 15 August 2022. The program was inaugurated by Vice Chancellor Dr Onkar Nath



Ek Sham Sahido kai Nam Cultural Program during Amrit Mahotsav

Singh. In his address, he highlighted the importance of such festivals in maintaining the independence and integrity of the country. Dean Agriculture D. S.K. Pal, Dean PGS Dr M.K. Gupta, Dean Veterinary Dr Sushil Prasad, Dean Forestry Dr M.S. Mallick and DSW Dr D.K. Shahi also expressed their views.

During Amrit Mahotsav fortnight, seven cultural competitions were also organized in all colleges of the university with the participation of students. Special lectures and cultural programs based on 'Ek Sham Shaheedo Ke Naam' and Prabhat-Pheri were also organized at Headquarters. Odissi dance by the girls of Devashruta Odissi Academy and the Kunjaban troupe led by eminent Nagpuri folk singer Padma Shri Mukunda Nayak enthralled the people with Nagpuri folk dance.

GADVASU, Ludhiana

Vet Varsity Successfully Produces First OPU IVF Calf in Punjab

In a major achievement, GADVASU scientists produced elite female Sahiwal calf following transfer of embryo produced by ovum pick up and *in vitro* fertilization (OPU IVF) technique. Dr Narinder Singh, Gurjot



First OPU IVF Calf in Punjab

Kaur Mavi and the team did all-out effort for producing first OPU IVF calf in Punjab state. So far, only a few labs have been able to standardize and successfully produced live calves using this technique in India. The GADVASU scientists have established 37 pregnancies using OPU IVF embryos from Sahiwal cows which are due for calving in the coming time.

Vet Varsity holds Record Production of 16 Live Piglets from One Gilt of Large White Yorkshire Breed

An exotic gilt of Large White Yorkshire (LWY) breed housed in GADVASU Pig farm records the production of 16 live piglets in first farrowing.

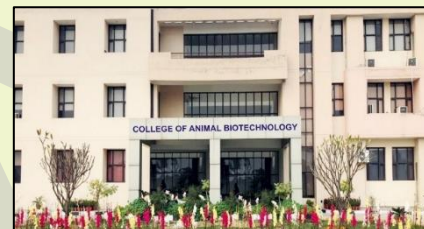


This is one of the rarest incidences and first of its kind with such a large litter size produced by primiparous animals of swine species. Government of India purchased 237 pigs of three breeds namely Large White Yorkshire (LWY), Landrace and Hampshire for NE states and housed them at Government pig breeding farm, Nabha and Hoshiarpur in June 2020. GADVASU procured 33 pigs of LWY (20 females and 6 males) and 7 pigs of landrace breed (4

females and 3 males) with a total of 33 pigs out of this herd in May 2021. One of these LWY females was this gilt which was bred with the exotic male from Nabha of this lot.

Centre of Emerging Diseases

Department of Animal Husbandry and Dairying under Ministry of Fisheries, Animal Husbandry and Dairying, Government of India (GoI) identified College of Animal



Biotechnology, GADVASU as Center of testing for the emerging diseases *i.e.* Lumpy skin disease (LSD) for the Chandigarh, Punjab, Ladakh, Jammu and Kashmir states/union territories and African swine fever (ASF) for the Punjab, Ladakh, Jammu and Kashmir, Chandigarh, Haryana, Uttar Pradesh, NCT Delhi, Uttarakhand and Rajasthan states/union territories.

GBPUAT, Pantnagar

Parthenium (Gajar Ghas) Awareness and Eradication Week

Under the weed control project funded by the Indian Council of Agricultural Research, New Delhi, a Parthenium Awareness Week programme was organized by the Department of Agronomy, College of Agriculture from 16 to 22 August 2022 in the university.



MHU, Karnal

Inauguration of Regional Research Station, Kharkhari (Bhiwani)

The Chief Minister, Haryana, Shri Manohar Lal

Khattar inaugurated a new Regional Research Station at Village Kharkhari (Bhiwani, Haryana) on 21 August 2022.

The Regional Research Station at Kharkhari will undertake multi-disciplinary



research which shall include collection of germplasm of fruits, vegetables, medicinal and aromatic plants, spices, etc. available in the country and elsewhere. Research will be carried out for the development of improved varieties/hybrids of fruits, vegetables, medicinal and aromatic plants, spices, etc. This station will prove to be a stepping stone in the development and progress of horticulture in South Haryana. This station will provide high quality planting material and seeds to farmers and will do specialized research on medicinal plants.

SKUAST, Jammu

94th ICAR Foundation Day Celebration

All the Krishi Vigyan Kendra's, of Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu

(SKUAST-J) on 16 July 2022 celebrated 94th ICAR foundation day at different



locations at their respective KVK's wherein a large number of farmers including men and women along with public representatives participated.



Independence Day Celebration

Krishi Vigyan Kendra's of SKUAST-Jammu, celebrated Independence Day with great enthusiasm and patriotic spirit. Sr Scientist and Heads from KVK's

hoisted the National Flag at their respective



KVK's wherein students, staff members and the extension functionaries from the line departments participated in the programme. Debates, patriotic song singing competition were also organized on this occasion.

National Campaign on Poshan Abhiyan and Tree Plantation

KVKs of Jammu Division working under the able guidance and directions of Dr J. P. Sharma, Vice Chancellor and Dr S.K. Gupta, Director Extension of SKUAST-Jammu organized National Campaign

on Poshan Abhiyan and Tree Plantation, in collaboration

with IFFCO on 17-09-2022. Large numbers of men and women



farmers participated

in this programme. The main purpose of the programme was to create awareness on nutri-gardens bio-fortified varieties and nutri-cereals and their role in human health. The vegetables seeds packets and fruit plants provided by IFFCO were also distributed among the participants at the end of programme.

Awareness Program on Lumpy Skin Disease

All the Krishi Vigyan Kendra's of Jammu Division working under the able guidance and directions of Dr J. P. Sharma, Vice Chancellor, and Dr S.K. Gupta, Director Extension, of SKUAST-Jammu organized awareness

programmes on Lumpy Skin Disease (LSD) at multiple locations at their respective districts. A large number of farmers were briefed about the symptoms and causes of the disease. They were also informed about the control measures to be followed.



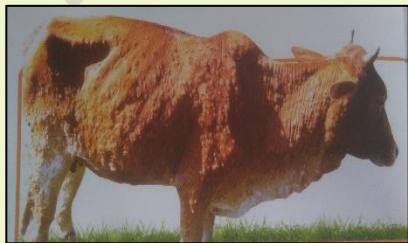
Awareness Programme on Lumpy Skin Disease (LSD)

SKUAST, Kashmir

- Dr Reetika Mahajan, presently working as post-doctoral fellow (DST-WoS) in Proteomics lab, Division of Biotechnology, SKUAST-K under mentorship of Dr Sajad M. Zargar is joining as a post-doctoral fellow at University of Toledo, USA.
- Climate Resilient Crop Production systems through filled level weather modification techniques from 26 July to 4 August 2022.
- Climate Smart Agriculture: A tool for sustainable crop production strategy under climate change scenario, from 26 July to 4 August 2022.
- Development of Novel Bioformulations for use in sustainable agro-ecosystems from 1-10 August 2022.

Awareness Programme on Lumpy Skin Disease

The outbreak of Lumpy Skin Disease has been a major concern for the farming community of Jammu and Kashmir in recent months. Though, the disease is now under control due to immediate intervention.



SKUAST-K is at the forefront of creating awareness about the disease and devising measures for their prevention and control.

What is LSD?

Lumpy Skin Disease a vector-borne viral disease affecting cattle and Asian Water buffalo. It is transmitted by blood-feeding insects, such as certain species of flies, mosquitoes, or ticks. The infection causes skin nodules, enlarged lymph nodes, high fever, nasal discharge, lacrimation (watery eyes with excess tears) and a sharp drop in milk production. Morbidity varies between 2% and 45%, and the mortality rate is usually less than 10%.

Prevention and Control:

- Immediately isolate the affected animals
- Avoid mixing healthy animals with infected ones, and restrict animal movements from the affected areas
- Quarantine the newly purchased/imported animals for 28 days
- Reduce the vector population by insecticide sprays inside the sheds and mosquito breeding places like stagnant water and manure pits
- Dispose off the dead carcasses by deep burial/incineration/rendering
- Vaccinate the eligible cattle (animals of any age can be vaccinated, but calves from vaccinated/naturally infected dams should get vaccinated at 3-6 months of age) using either LSD vaccine or goat pox vaccine under the supervision of a registered veterinary practitioner

To monitor the spread of LSD and suggest remedies for its control, J&K Govt constituted a task force headed by the SKUAST-K and SKUAST-J for Kashmir and Jammu Divisions, respectively.

SKUAST-K organised a workshop on Lumpy Skin Disease, for nodal officers of the Department of Animal Husbandry, Kashmir on 23 August 2022, wherein experts from Veterinary Microbiology and Medicine highlighted the main features of the disease. An interactive session was also held in which the current outbreak scenario and strategies for disease prevention and control measures were

discussed. Directorate of Extension issued advisories from time to time, and conducted workshops for creating awareness and training the Animal Husbandry Staff and farmers for prevention and control. Vice Chancellor, SKUAST-K, Prof Nazir Ahmad Ganai, instructed use of modern digital technologies for the extensive public outreach and linking farmers with other stakeholders and experts.

FUTURE PROGRAMMES

AAU, Anand

19th Annual Convocation of Anand Agricultural University

Anand Agricultural University will host its 19th Annual Convocation ceremony in upcoming months. The degrees will be awarded to the students who graduated from the institute during previous year. Meritorious students will be awarded medals and cash prizes during the event. Apart from this a Best Teacher, Best Research and Best Extension awards will also be awarded to the faculties.

SKUAST, Jammu

- Productivity enhancement, crop improvement and varietal development programmes in potential crops of UT of J&K.
- Development of low-cost soil and water conservation technologies for rainfed area of Jammu region.

NEW VICE CHANCELLORS

Dr Rajendra Prasad Central Agricultural University (Dr RPCAU), Pusa

Dr Punyavrat S Pandey

Dr Punyavrat Suvimalendu Pandey joined as Vice Chancellor of Dr Rajendra Prasad Central Agricultural University, Samastipur, Bihar on 27 September 2022. Dr Pandey was born on 13 February 1964 in the



Buxar district of Bihar. Before joining as Vice Chancellor, Dr Pandey was holding the position of Assistant Director General (Education Planning and Home Science; and Education Quality Assurance and Reforms) in Agricultural Education division of the Indian Council of Agricultural Research, New Delhi. Dr Pandey, a 1986 batch Scientist from the Agricultural Research Service (ARS), did his graduation from Science College, Patna and M.Sc. and Ph.D. from the prestigious Indian Agricultural Research Institute (IARI), New Delhi.

Dr Pandey has a wide-ranging experience of more than three decades in Agricultural Research and Education in the area of Agricultural Research, Policy Planning and Management of Higher Agricultural Education including Promotion of Access, Equity, Relevance, Quality, Capacity Building and Human Resource Development.

He started his career from National Academy of Agricultural Research Management (NAARM), Hyderabad and worked in various institutions of ICAR in different capacity with multidisciplinary teams.

Dr Pandey served as National Co-ordinator of the Organization and Management component of the World Bank supported National Agricultural Innovation Project (NAIP) during 2011-2015. Dr Pandey is well known expert in

the area of ICT in Agriculture. Several reforms and innovations made in the NARS like Super Computing Facility of Bio-informatics Grid, Agropedia- Knowledge Management Platform, Consortium for e-Resources in Agriculture (CeRA), Strengthening of Digital Library, e-GRANTH, e-Courses and e-Publishing, etc. are under his credit. Establishment of 22 Incubation and Agri-Business Planning and Development Centers during 2012 to encourage entrepreneurship in Agricultural Universities and ICAR institutes under the Leadership of Dr Pandey have been proved as land mark for today's Agri Start-ups in India.

Before joining as National Co-ordinator, Dr Pandey worked as Principal Scientist in the Simulation and Informatics division of the IARI, New Delhi. Dr Pandey is also Faculty Member of Bioinformatics at IARI, New Delhi. He has been a member of various High-Powered Committees and Professional Bodies including Member of Academic Council of National Dairy Research Institute, Karnal, Haryana; Navsari Agriculture University, Navsari, Gujarat; Sam Higginbottom University of Agriculture, Technology and Science, Prayagraj, Uttar Pradesh; Junagarh Agriculture University, Junagarh, Gujarat; Member of Research Advisory Council of several ICAR institutes.

Presently, Dr Pandey is Member of Board of Management of University of Agriculture Sciences, Dharwad, Karnataka; Bihar Agricultural University, Sabour, Bihar; Birsa Agricultural University, Ranchi, Jharkhand; Sardar Ballabh Bhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh; University of Agriculture Sciences, Bengaluru, Karnataka and University of Agriculture, Jodhpur, Rajasthan.

A total of 21 Research and 55 Innovation Projects, have been completed under the leadership of Dr Pandey. He is also the proud recipient of several Awards and Honours including prestigious Gold Medal of IARI for his outstanding academic performance.

Dr Pandey has published more than 120 research papers in national and international

journals along with several articles, conference proceedings, technical reports, manuals and book chapters on issues relating to agricultural research and education, ICT in agriculture, agribusiness entrepreneurship, experiential learning and women empowerment. He is also Reviewer and Member of Editorial Board of several Scientific Journals.

Govind Ballabh Pant University of Agriculture and Technology (GBPUAT), Pantnagar

Dr Manmohan Singh Chauhan

Dr Manmohan Singh Chauhan appointed as Vice-Chancellor of the university.

Dr Manmohan Singh Chauhan, eminent Animal Biotechnologist and Ex-Director-

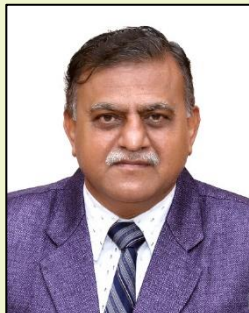
cum-Vice-Chancellor of the National Dairy Research Institute, Karnal has taken over the charge as 28th Vice-Chancellor of the G.B. Pant University of Agriculture and Technology, Pantnagar on 29 August 2022. Before joining NDRI, he had served as the Director of ICAR-Central Institute for Research on Goats, Makhdoom, Mathura. Immediately after taking the charge at Pantnagar, Dr Chauhan held a meeting of the University Management Committee in which Deans, Directors, and Officers of the university were introduced to him. In the meeting, Dr Chauhan was apprised of the activities and achievements of university. He emphasized upon exploring all the possible strategies to take the university ahead and make it a prominent institute of learning and research in the country.



Junagadh Agricultural University (JAU), Junagadh

Dr Vithaldas Parsotambhai Chovatia

Dr Vithaldas Parsotambhai Chovatia, M.Sc. (Agri.) and Ph.D. (Genetics and Plant Breeding), has more than 37 years of professional experience in Agricultural Education, Research, Extension and Administration of various positions including



Professor and Head (Genetics and Plant Breeding), Research Scientist (Sugarcane and Castor), Principal and Dean, Registrar, Director of Research and Dean, PG studies and I/c Vice Chancellor at Junagadh Agricultural University. He is holding the duties of Vice Chancellor, Junagadh Agricultural University (JAU), Junagadh, Gujarat, India since 11 August 2022. He has guided 15 M.Sc. (Agri.) and 04 Ph.D. students. He has established and developed laboratories /museum /educational institutes at JAU including College of Agriculture at Mota-Bhandariya, Amreli. Six research papers in international journals, 27 in national journals, while, more than 90 scientific publications were published by him. He has received more than ten awards and appreciations from various organizations. He has contributed in development of more than 60 technologies and 25 new varieties of different crops viz. sugarcane, wheat, onion, groundnut, sesame, castor, cotton, papaya, brinjal, tomato and okra. He has coordinated more than 150 research projects at JAU. Under his guidance, 13 patents were registered and one was accepted while, 18 MoU's were done with different institutes /organizations. He is member of 50 Scientific /Government bodies /Committees. During the tenure, JAU has received five star GSIRF rating from Knowledge Consortium of Gujarat.

Keladi Shivappa Nayaka University of Agricultural and Horticultural Sciences (KSNUAHS), Shivamogga

Dr Rudrappa Chandrashekharappa Jagadeesha

Dr Rudrappa Chandrashekharappa Jagadeesha was born on 18 July 1962 at Melina Hanasavadi village of Shivamogga District, Karnataka, India. Dr Jagadeesha completed school education in native village and PUC at DVS



College, Shivamogga. He did B. Sc (Agriculture) in 1984 and M.Sc. (Agri) in Genetics and Plant Breeding in 1986 from University of Agricultural Sciences, Bengaluru and Ph.D. (Genetics and Plant Breeding) in 2000 from University of Agricultural Sciences, Dharwad and Plant Variety Protection course in 2017 from Wageningen Agriculture University, Wageningen, The Netherlands.

Before assuming the charge of Vice Chancellor of Keladi Shivappa Nayaka University of Agricultural and Horticultural Sciences, Shivamogga on 13-07-2022, Dr Jagadeesha has served as Head of Genetics and Plant Breeding Department, UHS, Bagalkot; Librarian, Special officer Seeds, Administrative officer, University of Horticultural Sciences, Bagalkot; Dean College of Horticulture, Bengaluru and Dean and Campus Head, College of Agriculture, Shivamogga.

As an accomplished breeder Dr Jagadeesha has developed 25 varieties in different field and horticultural crops (soybean, millets, chili, tomato, onion, garlic, groundnut, cluster bean, etc.). Besides, he also developed protocols for – *In vitro* multiplication Banana, clonal propagation of Jamun (*Syzygium cuminii* L), micropropagation of the bird of paradise flower and turmeric.

He has also served many professional bodies in different capacities like Editor, Asian Journal of

Horticulture science (2012-2014); PRT member for Dr Y.S. Parmar University Solan, and BAU, Sabour Bihar; Member, Board of Studies (UG and PG), 2009 – 2020, UHS, Bagalkot; Member convener, Board of Studies (UG) – 2021, UAHS Shivamogga; Member, Academic Council, 2010 – 2012, UHS, Bagalkot. Dr Jagadeesha has been recognized at international level and has visited many countries in different capacities. Dr Jagadeesha has been major advisor of 5 Ph.D. and 12 M.Sc. degree students. He has also been in the advisory committee of >100 students. He has published more than 100 research paper in national/international journals and has also written 20 books. In toto, he has wide ranged experience as researcher, extensions worker, teacher and academic administrator of 34 years.

Odisha University of Agriculture and Technology (OUAT), Bhubaneswar

Prof. Pravat Kumar Roul

Prof. Pravat Kumar Roul, assumed office of the Vice Chancellor, Odisha University of Agriculture and Technology, Bhubaneswar, Odisha on 9th September 2022. Prof. Pravat Kumar Roul was born on 27th September, 1964 in a Village of Jagatsinghpur district of Odisha. He has excellent academic career from his school days. After passing his Intermediate Science from Ravenshaw College, Cuttack; Prof. Roul completed his Graduation and Post Graduation in Agriculture Science from Odisha University of Agriculture and Technology (OUAT), Bhubaneswar and Ph.D. from Indira Gandhi Agricultural University, Raipur, Chhatisgarh.

Prof. Roul, an Agronomist by Profession started his professional career as Scientist (Agronomy) in OUAT. He has served the University in all three domains of teaching, research and



extension both at University headquarters and outlying stations. He has served the University in key management positions, viz., Associate Director of Research; Director Agro-polytechnic; Director of Planning, Monitoring and Evaluation; Dean Extension Education; Dean College of Agriculture and Dean College of Veterinary Science and Animal Husbandry during the period 2011- 2020. Thereafter he served the Government of Odisha as the Managing Director of the Agricultural Promotion and Investment Corporation of Odisha Ltd, for promotion of Agri-entrepreneurship and food processing till he assumed the office of Vice Chancellor, OUAT.

Prof. Roul, a reputed teacher, was awarded with the Best Teacher Award of the University in 2010. As a researcher, he has more than 50 research publications to his credit in peer reviewed national and international journals of repute and more than 25 books/ book chapters published by renowned publishing agencies including CABI and Springer. He has also successfully handled six research projects including three funded by Governments of Norway, Japan and USA. He has visited six foreign countries, viz. Nepal, Bangladesh, Cambodia, Japan, Norway and USA on several occasions on academic and research assignments.

Prof. Roul has been awarded with Boived Research Fellowship Award- 2006; *Janata Gourav* Award-2010; *Pratibha Samman*-2018, *Krusha Ratna Samman*-2018 and *Professor Parija Smruti Samman*-2021. As Dean of Extension Education, has received “ICAR-Pandit Deendayal Upadhyaya Krishi Vigyan Protsahan Puraskar” consecutively for 2018 and 2019.

Punjab Agricultural University (PAU), Ludhiana

Dr Satbir Singh Gosal

Born on 1 October 1954 in village Ratwara, Mohali (parental village Majatri, Distt. Mohali), Punjab, Dr Satbir Singh Gosal is an internationally acclaimed agricultural biotechnologist and recipient of prestigious Fellowships by The Royal Society London and The Rockefeller Foundation (USA) for his Post Doctoral research at the University of Nottingham, and John Innes Centre Norwich, England. Dr Gosal obtained his B.Sc. degree from Panjab University, Chandigarh and M.Sc. and Ph.D. in Plant Breeding from Punjab Agricultural University, Ludhiana with specialization in Agricultural Biotechnology. Dr Gosal has served Punjab Agricultural University in various capacities such as Professor of Biotechnology, Head Department of Biotechnology, Founder Director of School of Agricultural Biotechnology, Additional Director Research (Agri.), Director of Research and Member Board of Management. He has also served as Consultant, FAO/IAEA, Vienna, Austria and undertook expert mission to Iraq. Dr Gosal has rigorous training on Biosafety of GM crops from Dan Forth Centre for Plant Science Research, St. Louis; APHIS, EPA (USDA), USTDA, Washington DC, USA. He has been an active member of Review Committee on Genetic Manipulation (RCGM) for 3 years at DBT, Government of India, New Delhi. He has been an honorary member, Board of Assessors, Australian Research Council, Canberra and President Punjab Academy of Sciences. He is an elected member (Fellow) of Plant Tissue Culture Association (India), Fellow of Indian Society of Genetics and Plant Breeding, Fellow of Punjab Academy of Sciences. He is recipient of Lifetime Achievement Award from Punjab



Academy of Sciences. He obtained and executed more than 20 externally funded Research Projects granted by various national and international organizations such as State Government, ICAR, DBT, DAC NATP, FAO/IAEA, and The Rockefeller Foundation, USA. He has participated and presented his research findings at 130 national/international conferences/meetings held in India, England, Scotland, Yugoslavia, Philippines, Indonesia, Thailand, The Netherlands, Malaysia, Singapore, Austria, Iraq, China, Australia, Mexico, Germany and USA. He has an excellent published record with research papers in refereed journals- 207, Innovation publications- 3, Papers in conference proceedings-135, Abstracts- 300, T.V./Radio talks- 9, Popular articles- 20, Book chapters- 37, Research reports- 22, Laboratory manuals- 5, and Books- 10 of which 8 are from Springer, Switzerland. He is a prolific teacher and has guided more than 75 M.Sc. and Ph.D. students.

Sardar Vallabh Bhai Patel University of Agriculture and Technology (SVBPUAT), Meerut

Dr Krishna Kumar Singh

Dr Krishna Kumar Singh obtained B.Sc. (Agril. Engg) from Allahabad Agricultural Institute, Allahabad in 1981; Master of Technology (Processing & Agril. Structures) degree from Punjab Agricultural



University, Ludhiana in 1985 and Ph.D. from Indian Institute of Technology, Kharagpur in 1997. Dr Singh started his career as Assistant Professor at RAU, Pusa in August, 1984 and continued until May, 1985, thereafter, he joined Central Institute of Agricultural Engineering, Bhopal as Scientist S-1 (ARS-1985) in May, 1986 and worked at different scientific positions until April, 2007.

Thereafter, he served at various research management positions viz Head, Food Grains & Oilseeds Processing Division at Central Institute of Post Harvest Engineering & Technology, Ludhiana from April 2007 to February 2010, Assistant Director General (Process Engineering) at ICAR HQ, New Delhi from February 2010 to September 2014; Director, ICAR-Central Institute of Agricultural Engineering, Bhopal from September 2014 to April 2019; Member, Agricultural Scientists Recruitment Board, Department of Agricultural Research and Education, Ministry of Agriculture & Farmers' Welfare, Govt. of India from April 2019 to April 2022 and finally joined as Vice Chancellor of Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut on September 26, 2022. Dr. Singh authored more than hundred research papers and a popular text book entitled 'Unit Operations of Agricultural Processing'. He has been recipient of several prestigious awards and honours, such as Rafi Ahmed Kidwai Award, Jawaharlal Nehru Award, Fellowships of the National Academy of Agricultural Sciences (NAAS), Recognition Award of the NAAS, and Fellowship of the Indian Society of Agricultural Engineers. He was awarded Post Doctoral Fellowship /Visiting Scientist in 2000 by the North Dakota State University, USA. He completed the management programme on 'Leadership for the 21st Century' organized by Harvard University, USA. He visited USA, Italy, Germany, Philippines, Thailand, China, Vietnam, and Cambodia a number of times to lead the Indian Delegations abroad and attend International professional meetings, at Food and Agriculture Organization, Centre for Sustainable Agricultural Mechanization (CSAM), Economic and Social Commission for Asia and the Pacific (ESCAP), etc.

Dr Singh served as Chairman, Agriculture & Food Processing Equipment Sectional Committee (FAD-20) and Agricultural Machinery & Equipment Sectional Committee (FAD-11) of BIS. He also served in a number of prestigious committees and boards as Member,

like Governing Body and General Body of ICAR, APEDA, Board of Management of Punjab Agricultural University, Ludhiana; RVSKVV, Gwalior; NIFTEM, Kundli; INST, Mohali; etc.

Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani

Dr Indra Mani

Dr Indra Mani jointed as a Vice Chancellor at Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani on 25 July 2022. Dr Indra Mani has worked as Joint Director Research at prestigious Indian Agricultural Research Institute (IARI), New Delhi. Prof. Indra Mani, with more than 29 years of service, has extensively worked in the area of machinery development for agri-residue management, dryland agriculture, vegetable mechanization, small farm mechanization, and equipment for enhancing fertilizer use efficiency. The technologies developed and upscaled by him have reached to more than 18 states of country and created a great socio-economic impact by making agriculture a profitable venture through production in dry land areas, enhanced fertilizer use efficiency, biomass management, production of quality compost and mechanization of small farms. He has guided 20 Ph.D. and 12 M. Tech. students. He has published more than 140 research papers and other publications in peer reviewed national and international journals.

He has established Design Innovation Centre in collaboration with Indian Institute of Technology for developing innovative solutions for Indian farmers. He has been actively involved in formulation of mechanization strategy for various regions of the country particularly North Eastern region. He has been coordinator of IARI's NEH, TSP and MGMG programme for improving the livelihood of



farmers in north eastern hill region and tribal areas along with areas in states of Uttar Pradesh, Haryana and Delhi. Under his guidance as a Nodal Officer of programme *Mera Gaon Mera Gaurav*, 121 teams involving about 600 scientists of ICAR-IARI and ICAR-IASRI were working for farmers' livelihood improvement of about 400 adopted villages.

Prof. Indra Mani has been instrumental in development of agricultural drone policy of India by serving as convener of the committee for developing standard guidelines for the use of drones in agriculture, and now as Chairman of the committee to explore the possibilities and requirements of drone technology for Soil Nutrients application and drafting of crop-wise Standard Operational Procedure (SoP) Guidelines. He has been actively involved in mentoring of Incubatees and Start-ups related farm technology under RKVY-RAFTAAR (MoA&FW, GoI) and ZTM&BPD (ICAR-IARI) and ARISE programme of ICAR-IARI. He has been actively involved in TIFAN (Technology Innovation Forum for Agricultural Nurturing)-a platform to solve real mechanization challenges.

Prof. Indra Mani has been bestowed a number of awards like ICAR -Bharat Ratna C Subramaniam Outstanding Teacher award, ASABE (USA) Presidential Citation award, ICFA Apollo Tyre's award, MoWR groundwater augmentation award, ICAR-Jawahar Lal Nehru award, IARI Best Teacher Award, Institution of Engineers Gold medal, ASPEE award, ISAE fellowship, IE(I) fellowship, ISAE team award and ISAE outstanding book award. Dr Indra Mani has a very wide international exposure and been visiting faculty to different centres/institutes in different countries in South East Asia, North America, Africa, Japan and Europe.

The IAUA thanks and congratulates the following Vice Chancellors for support to IAUA and successfully completing their tenures during July-September 2022:

- **Dr Arvind Kumar**
Vice Chancellor
Rani Lakshmi Bai Central Agricultural University, Jhansi
- **Dr V. Praveen Rao**
Vice Chancellor
Professor Jayashankar Telangana State Agricultural University, Hyderabad
- **Dr D. C. Joshi**
Vice Chancellor
Agricultural University, Kota
- **Dr R. P. Singh**
Vice Chancellor
Swami Keshwanand Rajasthan Agriculture University, Bikaner
- **Dr Narendra Singh Rathore**
Vice Chancellor
Maharana Pratap University of Agriculture & Technology, Udaipur
- **Dr R. K. Mittal**
Vice Chancellor
Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut
- **Dr S. Rajendra Prasad**
Vice Chancellor
University of Agricultural Sciences, Bengaluru
- **Dr V. M. Bhale**
Vice Chancellor
Dr Panjabrao Deshmukh Krishi Vidyapeeth, Akola
- **Dr Jeet Singh Sandhu**
Vice Chancellor
Sri Karan Narendra Agriculture University, Jobner