



# IAUA NEWS

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## NEW TECHNOLOGIES

### VARIETIES/HYBRIDS RELEASED

**Chaudhary Charan Singh Haryana Agricultural University, Hisar**

#### 1. Wheat; WH 1270

**Salient features:** Good degree of resistance to yellow and brown rusts, flag smut, leaf blight and powdery mildew diseases; matures in 156 days; average height is up to 100 cm, due to which it does not fall in the field; protein higher than other varieties; recommended for early sowing i.e. last week of October; if sown early and with recommended package of practices, its yield potential is 75.8 to 91.5 q/ha.

**Area of adoption:** North Western Plain Zone of India consisting of Punjab, Haryana, Delhi, Rajasthan (except Kota and Udaipur divisions) and Western Uttar Pradesh (except Jhansi division), parts of Jammu and Kashmir and parts of Himachal Pradesh (Una district and Paonta valley) and Uttarakhand (Tarai region).

#### 2. Pearl millet; HHB 311

**Salient features:** High Fe (83 mg/kg) and Zn content at (42 mg/kg); yield potential 31.7 q/ha; resistant to downy mildew; and matures in between 75 and 80 days.

**Area of adoption:** *Kharif* season in Rajasthan, Gujarat, Haryana, Punjab, Delhi, Maharashtra and Tamil Nadu.

#### 3. Oats; OS 405 and OS 424

**Salient features:** Protein more than others; very good in terms of production and nutrition (**OS 405:** yield of green fodder is 513.9 q/ha and dry fodder 114.7 q/ha; seeds up to 15.4 q/ha; **OS 424:** yield of green fodder 296.5 q/ha and dry fodder 65.1 q/ha; seeds up to 13.5 q/ha); resistant to leaf scorching disease.

**Area of adoption:** Variety OS 405 for cultivation in the central region of India, mainly Maharashtra, Gujarat, Madhya Pradesh, Chhattisgarh and Madhya Uttar Pradesh; OS 424 for the hilly region comprising Himachal, Jammu and Kashmir and Uttarakhand.

#### 4. Pea; HFP 1428

**Salient features:** Dwarf variety; leaflets having green foliage and white flowers; cream colour, medium bold, slightly wrinkled and cylindrical seeds; Early maturing (123 days); resistant to powdery mildew, ascochyta blight, root rot; moderately resistant to rust, and resistant to lodging; average yield 28 and potential yield 40 q/ha.

**Area of adoption:** North West Plain zone of India comprising the states of Punjab, Haryana, Delhi, Rajasthan, Uttarakhand, parts of J&K and western Uttar Pradesh.

#### 5. Mungbean; MH 1142

**Salient features:** Semi-erect plants, light green foliage and determinate growth habit; black pods and medium size green shiny seeds; matures in 63-70 days; resistant to mungbean yellow mosaic virus, urdbean leaf crinkle virus, leaf curl virus; moderately resistant to anthracnose and powdery mildew diseases. Whitefly, thrips, pod bugs and pod borers attack are lesser; average yield 12 q/ha, potential yield 20 q/ha.

**Area of adoption:** North West and North East Plain zones of India comprising the states of Uttar Pradesh, Punjab, Haryana, Delhi, Rajasthan, Uttarakhand, Bihar, Jharkhand, West Bengal and Assam.

#### 6. Sorghum- CSV 44F

**Salient features:** 10% higher protein content; delicious with high digestibility than other

varieties, hence, help increase milk production in animals.

**Area of adoption:** Southern states, mainly Karnataka and Tamil Nadu.

**Ch. Sarwan Kumar H.P. Krishi Vishwavidyalaya, Palampur**

### 1. Wheat- HPW-373 (Him Palam Gehun-3)

**Salient features:** Highly resistant to yellow rust; very Good *chapatti* making quality; average grain yield (28.0-32.0 q/ha).

**Area of adoption:** Late and very late sown rainfed conditions in low and mid hills of the state.

### 2. Barley -HBL-804 (Him Palam Jau-2)

**Salient features:** Dual purpose barley variety; high degree of resistance to stripe and brown rusts; green fodder yield = 25-30 q/ha (with cutting at 75-80 DAS); grain yield = 20-25 q/ha (170-185 days crop).

**Area of adoption:** Timely sown rainfed conditions in low and mid hills of the state.

### 3. Soybean -HIMSO-1685 (Him Palam Hara Soya-1)

**Salient features:** Average seed yield 20-23 q/ha; Oil content 20.1 %; highly resistant to frogeye leaf spot, pod blight, bacterial pustule and brown spot diseases.

**Area of adoption:** Suitable for rainfed conditions in mid-hill zone of the state.

### 4. Mustard- THPM-1 (Trombay Him Palam Mustard-1)

**Salient features:** Average seed yield, 11.2 q/ha; average oil content, 39.9 %; average oil yield, 420 kg/ha.

**Area of adoption:** Suitable for irrigated conditions in low and mid-hill areas of the state.

### 5. Pea -Him Palam Matar 1 and Him Palam Matar 2

#### Salient features

**Him Palam Matar 1:** Ready for first harvest in about 70 days in high hills, 100-125 days in low to mid hills; average pod yield, 160 q/ha; moderately resistant reaction to powdery mildew disease.

**Him Palam Matar 2:** Mid-season variety; average pod yield, 140-160q/ha; pods well filled, curved with 8-10 seeds; average shelling percentage 50%; alternative to commercial variety, Azad Pea1.

**Area of adoption:** Suitable for cultivation in main season in low, mid and high hills of Himachal Pradesh, and off-season cultivation. Recommended for cultivation in low, mid and high hills of Himachal Pradesh.

### 6. Edible Pod Pea -Him Palam Meethi Phali 2

**Salient features:** First proposed variety for cultivation in Himachal Pradesh; pod yield potential, 80-100 q/ha; moderately resistant to powdery mildew disease and tolerant to leaf miner.

**Area of adoption:** Suitable for main/off-season cultivation in low, mid and high hills of Himachal Pradesh.

### 7. Chilli -Him Palam Mirch1 and Him Palam Mirch 2

#### Salient features

**Him Palam Mirch 1:** Cluster bearing fruit habit, comparatively longer fruit than 'Surajmukhi' ; ready for first harvest in 60 days, a week earlier than 'Surajmukhi'; high fruit yield (100-125 q/ha) about 20% higher

over 'Surajmukhi'; tolerant to bacterial wilt and also had low incidence of fruit rot (<10%)

**Him Palam Mirch 2:** Single erect fruit bearing habit; high fruit yield potential with average fruit yield of 140 q/ha about 40% higher over 'Surajmukhi'; tolerant to bacterial wilt and also showed low incidence of fruit rot (<10%) and Phytophthora rot.

**Area of adoption:** Suitable for cultivation in low and mid hills of Himachal Pradesh. Suitable for cultivation in low and mid hills of Himachal Pradesh.

## 8. Cucumber -Him Palam Kheera-1

**Salient features:** First recommendation in the state; maturity in 42-45 days after planting; moderately resistant (MR) to downey mildew and powdery mildew disease; farmers can produce seed at their own field, being an OP variety.

**Area of adoption:** Suitable for all agro-climatic zones of Himachal Pradesh.

## 9. Cherry Tomato- Him Palam Cherry Yellow

**Salient features:** Fruits yellow, oval shaped and juicy; rich source of beta carotene; cluster bearing habit (19-20 fruits/cluster); give two crops in a year; seed can be produced in polyhouses as well as in open conditions.

**Area of adoption:** Under protected conditions in HP

## 10. Radish -Him Palam Mooli1

**Salient features:** Average biological yield, 450q/ha (10% more than Japanese White); medium in maturity, harvesting after 60-70 days of sowing; no serious attack of insect pests and diseases

**Area of adoption:** Recommended for cultivation in low and mid hills of the state.

## 11. Onion -Him Palam Shweta

**Salient features:** First white onion variety released in the state; Average bulb yield, 270.5 q/ha; higher total soluble solids [TSS], iron [Fe], ascorbic acid, calcium [Ca]; resistant to *Stemphylium blight* and *Thrips tabaci*; moderate resistance to downy mildew; better shelf life; low post harvest losses.

**Area of adoption:** Recommended for low and mid hills of Himachal Pradesh.

## Dr Y.S.R. Horticultural University, Venkataramannagudem

The following 13 varieties i.e., coconut (4), coriander (1), chilli (3), colacasia (1), fenugreek (1), cassava (1), banana (1) and turmeric (1) are notified in the gazette of India (CG-DL-E-08042021-226407 - part II- Section 3 - Sub section (ii)) Dated: 07.04.2021

## 1. Coconut - Vasista Ganga

**Salient Features:** Yield, 85-94 nuts/palm/year; dwarf stature (5.12 m at 22 years) and early bearing, comes to flowering in 36 months after planting; higher quantity and quality of tender nut water and copra content, i.e. 59 and 26 % over East Coast Tall; good combining ability useful for crossing programmes for production of new hybrids.



Vasista Ganga

**Area of adoption:** Andhra Pradesh and Karnataka.

## 2. Coconut - Gauthami Ganga



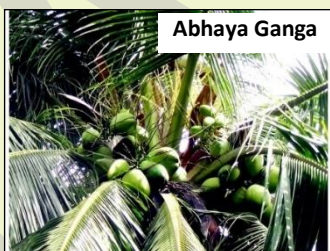
**Salient Features:** Yield, 85-94 nuts/palm/year; dwarf stature (5.12 m at 22 years) and early bearing, comes to flowering in 36 months after planting; higher quantity and quality of tender nut water and copra content, i.e. 59 and 26% over East Coast Tall; good combining ability useful for crossing programmes for production of new hybrids; Oil content of 69% with tender nut water of 447 ml with TSS-7.2 °Brix and potassium, 2035 ppm.



**Area of adoption:** Andhra Pradesh

### 3. Coconut - Abhaya Ganga

**Salient Features:** Yield, 136 nuts/palm/year; dwarf × tall cross (Gangabondam Green Dwarf × Laccadive Ordinary Tall); semi-tall hybrid, early bearing comes to flowering in 38-40 months after planting; highest oil content, 72%; recorded an increase in nut yield by 54, copra output by 95, oil yield by 65 %, tender nut water content by 24 % over local check (ECT) and 17, 10, 29 and 13.3 %, respectively, over hybrid check (ECT × GBGD); oil content of 72 %; moderately resistant to bud rot disease.



**Area of adoption:** Andhra Pradesh

### 4. Coconut - Vynateya Ganga

**Salient Features:** Yield, 118 nuts/palm/year; tall × dwarf hybrid (Philippines Ordinary Tall × Gangabondam Green Dwarf); semi tall hybrid, precocious

comes to bearing in 48 months after planting; dual purpose hybrid for yield (copra and oil) and tender nut water; increased nut yield of 47 and 7, copra output of 119 and 22, oil yield of 120 and 17 and tender coconut water content of 23 and 17 % over local check (ECT) and hybrid check (ECT × GBGD) respectively; higher copra content of 190.50 g/nut; moderately resistant to ganoderma, bud rot and stem bleeding diseases.



**Area of adoption:** Andhra Pradesh

### 5. Coriander – Suruchi

**Salient Features:** Herbage yield, 3.5-4.5 t/ha greens in off-season (summer) under 50-75% shade net; herbage yield, 15-18 t/ha in *rabi* season under open field conditions; herb can be harvested between 35 and 55 days; under shade net, yield advantage of 15-30 % over existing leafy variety Sadhana; volatile herb oil content, 0.15%, leaf essential oil content, 0.032%; very good aroma, comparable to traditional variety Sadhana and better than cilantro types grown commercially.

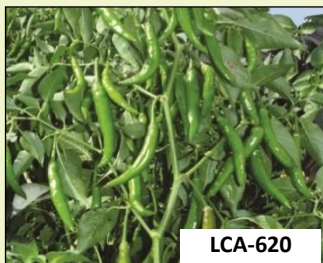


**Area of adoption:** Andhra Pradesh, Telangana, Tamil Nadu and Rajasthan

### 6. Chilli – LCA 620

**Salient Features:** High yielding, a yield advantage of 20-30% over LCA 334 (control); plants tall, erect branching; medium durations 170-190 days; medium long, medium bold size fruits (9-10 cm length and 3.5-4.0 cm girth);

yield, 6,500-6,800 kg/ha; uniform size fruits from basal nodes to top or terminal growing point; bold and medium long pods, which make harvesting easy with less labour cost.



LCA-620

**Area of adoption:** Andhra Pradesh, Odisha and Chhattisgarh.

## 7. Chilli – LCA 625

**Salient Features:** High yielding chilli variety with an yield advantage of 25-35% over LCA 334 (control); plants are erect with tall growing habit and sturdy branching; medium to long duration 190-210 days; medium long slender size fruits (8-10cm); yield, 6,500-7,000 kg/ha; highly suitable for direct sowing among all the available OP varieties and can tolerate drought.



LCA-625

**Area of adoption:** Andhra Pradesh.

## 8. Chilli – LCH 111

**Salient Features:** High yielding hybrid with an yield advantage of 15-20% over Indam 5 (control); plants are tall and erect; pods are long with shiny bright red colour (13-14 cm length, 3.0-3.5 cm girth); yield, 7,500-8,000 kg/ha; high yielder, resistant to *Cucumber Mosaic Virus* (CMV).



LCH-111

**Area of adoption:** Andhra Pradesh.

## 9. Colacasia – Godavari Chema

**Salient Features:** Early maturing, high yielding variety; duration, 5 - 5½ months; recommended for cultivation as pure crop and also as intercrop in banana and coconut plantations; yield, 18-20 t/ha.



Godavari Chema

**Area of adoption:** Andhra Pradesh.

## 10. Fenugreek – Lam Methi 2

**Salient Features:** Average yield, 7-9 q/ha under rainfed conditions and 12-15 q/ha under irrigated conditions; high yielding, growing up to 50 cm with profuse bearing; medium duration, 80-90 days; grains are flat, rectangular shaped with attractive brown colour having better market acceptance; yield advantage of 30-35 % over the existing Lam Selection 1 variety.



Lam Methi-2

**Area of adoption:** Andhra Pradesh.

## 11. Cassava –TCMS 5/PDP CMR 1

**Salient Features:** Yield potential, 43-46 t/ha; semi spreading nature suitable to dense planting; medium duration crop with 8 - 9 months; starch content, 24-26%; drought tolerant; completely resistant to cassava mosaic disease (CMD); tolerant to sucking pests.



TCMS - 5



**Area of adoption:** Andhra Pradesh.

## 12. Banana – Godavari Bontha

**Salient Features:** Culinary variety and comparatively high yielder than Kovvur Bontha (Check) with 8-9 hands and 90-100 fingers per bunch. Can be grown as pure crop and also as inter crop in coconut



Orchards. Average bunch weight, 23-24 kg; tolerant to thrips and aphids; moderately resistant to leaf spot diseases.

**Area of adoption:** Andhra Pradesh.

## 13. Turmeric – Lavanya

**Salient Features:** High yielding long duration variety; yield potential: 55-65 t/ha (raw rhizome yield); tolerant to leaf spot, leaf blotch and rhizome rot.



**Area of adoption:** Andhra Pradesh.

**Odisha University of Agriculture and Technology, Bhubaneswar**

## Bottle Gourd – Utkal Shobha

Bottle gourd variety

**Salient Features:** Duration ,120; potential yield, 20-25 t/ha; can be cultivated throughout the year.



**Area of adoption:** Suitable for cultivation in irrigated medium land situation. Odisha, Rajasthan, Gujarat, Haryana and Maharashtra.

## Tomato -Tomato 121

### Salient Feature:

Yield potential, 45 tonnes/ha; duration ,98 days; resistant to bacterial wilt; good keeping quality.



**Area of adoption:** Suitable for cultivation in irrigated medium land situation during rabi season. Odisha, Himachal Pradesh, Jammu & Kashmir, Uttarakhand.

**Punjab Agricultural University, Ludhiana**

## Basmati Rice; Punjab Basmati 7

**Salient features:** Height, 111cm ; extra-long slender grains (soft, non-sticky and almost double upon cooking); highly aromatic like traditional Basmati varieties; average paddy yield, 19.0 q/acre; matures in about 101 days after transplanting, performs better when transplanted in the first fortnight of July; resistant to all the ten presently prevalent pathotypes of bacterial blight pathogen prevalent in the Punjab state.



**Area of adoption:** Punjab State

## Wheat; PBW 1 Chapatti

**Salient features:** Premium quality bread wheat variety having excellent chapatti making properties(whitish, sweet; soft even after hours of cooking, good palatability and texture); average plant height,



103 cm; matures in about 154 days; moderately resistant to yellow rust; resistant to brown rust; average grain yield, 17.2 q/ acre.

**Area of adoption:** Punjab State

### 3. Maize; PMH 13

**Salient features:** Single cross hybrid recommended for general cultivation during *kharif* season in Punjab; average yield, 24 q/acre; light orange flint kernels; matures in 97 days; moderately resistant to maydis leaf blight, charcoal rot and maize stem borer.



**Area of adoption:** Punjab State.

### 4. Sugarcane; CoPb 95 (CoPb 16211)

**Salient features:** Canes tall, thick, zigzag internode alignment, purplish green colour, broad leaf canopy; juice contains 17% sucrose in December; field resistance to the prevalent pathotypes of red rot disease; moderately resistant to smut; less susceptible to top borer. It is a good ratooner, non-lodging and frost tolerant; average cane yield, 425 q/ acre.



**Area of adoption:** Punjab State.

### 5. Chilli; CH-52

**Salient features:** Hybrid between MS-13A × IS-261; first picking, possible 112 days after transplanting; average yield, 106.0 q/acre; fruits, long (9.8cm), thin skinned, pendent, borne singly, immature -deep green, mature-

deep red; fruits pungent (0.9% capsaicin), high dry matter (25%); moderately resistant to leaf curl virus, fruit rot, root knot nematodes; suitable for cultivation under low tunnel.



**Area of adoption:** Punjab State

**Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior**

**Gram: Raj Vijay Gram 204 (RVG 204) Notified by CVRC**

**Salient features:** Suitable for mechanical harvesting; help in reducing time and cost of harvesting resulted increase in profitability; semi erect plant growth habit; average plant height, 55 cm; first pod appear 30± 5cm above from soil surface; seed yield superior over the national checks viz; GBM2, JG 16, NBeG 47 /HC5 in central zone. Brown bold seed (23.8g) with resistance to *Fusarium* wilt and good nutritional value is an additional advantage for consumers and farmers preference.



**Area of adoption:** Gujarat, Maharashtra, Madhya Pradesh and Bundelkhand region of Uttar Pradesh

**Gram: Raj Vijay Kabuli Gram 2020 (RVKG 2020) Notified by CVRC**

**Salient features:** RVKG 2020 showed over all yield superiority 24.6 %, over national ELSK check variety PG 0517 during 3 years in AICRP trials. Maturity duration, 140 days, at-par with



the checks; hundred seed weight, 38.83 g and recorded up to 42.8 g in different locations; resistant to moderately resistant against wilt in NWPZ; and central zone moderately resistant against STUNT; RVKG 2020 showed quality superiority over JGK 1, KAK 2 and BG 1008 for protein (20.2%).

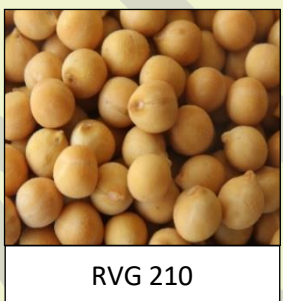


RVKG 2020

**Area of adoption:** Punjab, Haryana, Uttarakhand and Rajasthan

### **Gram: Raj Vijay Gram 210 (RVG 210)**

**Salient features:** Round seed shape, Smooth surface, bold size (25.53g), yellowish cream colour; thin seed coat (better trait for water absorption and uniform parching); Green plants pubescent with anthocyanin; white flowers; resistant to *Fusarium* wilt; Early maturing pea shape seed; yield superiority (31.9%) over the Gulabi check JGG 1; best replacement of Gulabi var JGG1 in Madhya Pradesh;



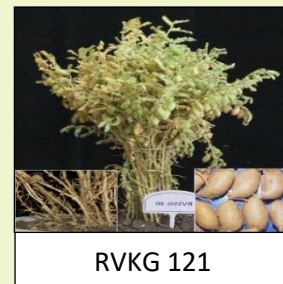
RVG 210

**Area of adoption:** Madhya Pradesh. Timely sowing under semi irrigated and irrigated farming conditions.

### **Gram: Raj Vijay Kabuli Gram (RVKG 121) Notified by CVRC**

**Salient features:** Seed yield superior over the checks viz., RVKG 101, JGK 3 and JGK 1 (14.12%) in Madhya Pradesh and BGD128 (36.77%), KAK2 (24.12%) in Central zone of India. Smooth seed surface, cream colour, owl's head shape; plant compacts medium tall, semi spreading plants growth habit and

anthocyanin content absent in plants; white flowers; medium maturity duration; resistant against *Fusarium* wilt; moderately resistant to dry root rot at 4 locations, and resistant against stunt at 1 location; against BGM the entry has got least incidence in three locations and under artificial conditions at ICRISAT; tolerant to pod borer (*Helicoverpa armigera*) and pulse beetle; good replacement for medium seed size Kabuli variety in Madhya Pradesh.



RVKG 121

**Area of adoption:** Madhya Pradesh. Timely sowing under semi irrigated / irrigated farming conditions

### **Gram: Raj Vijay Kabuli Gram 2021 (RVKG 2021) Released by SVRC**

**Salient features:** Medium duration (105 days);, wilt resistant; large seed size; high yielding variety of chickpea; superior in yield over national check and latest released variety Phule G 0517 (36.77%), zonal check variety KAK 4 (24.12%) and State check variety RVKG101(14.39%) in all India coordinated trials in the Central Zone and state varietal trials in Madhya Pradesh; extra-large seed size, brown seeds, smooth surface, owl's head shape, pink flower, yellow cotyledon high water absorption capacity; fit for flattened (Chana Jor), chhoula; value added snacks products with high yield potential; good nodulation and symbiotic relationship and better nutrient quality like protein (18.6%), potash (1.78%), sodium (0.11%) and phosphorus (0.18%). positive opinion given by the Farmers appreciated its field performance during rabi 2018-19 and 2019-20 in Sehore and Indore.



RVKG 2021

**Area of adoption:** Madhya Pradesh

**Gram: Raj Vijay Gram 2k21 (RVG 2K21)  
Released by SVRC**

**Salient features:** Medium duration (111 days); wilt resistant; large brown seeded; high yielding variety of chickpea generated by recombination between diverse desi and kabuli parents; superior in yield over national check and latest released variety PhuleG 0517 (10%), zonal check variety KAK 4 (7%) in all India coordinated trials; superior in yield over State check variety JGK 3 (18%), KAK 2 (24%) and PhuleG 517 (22%) in state varietal trials in Madhya Pradesh. seeds extra-large; brown, with smooth surface, owls head shape; pink flower; large cotyledon high water absorption capacity; fit for flattened (Chana Jor), chhoula, value added snacks products with high yield potential; good nodulation and symbiotic relationship and better nutrient quality—protein 19.1%, phosphorus 0.16%, potash 1.81%, sulphur 0.16%, sodium 0.16%, calcium 0.13%; farmers appreciated its field performance during *rabi* 2018-19 and 2019-20 in Sehore and Indore.



RVG 2K21

**Area of adoption:** Madhya Pradesh.

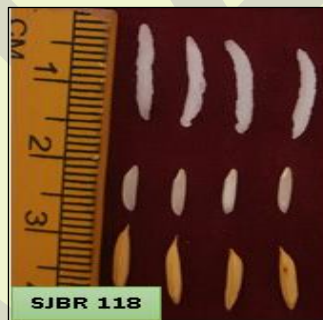
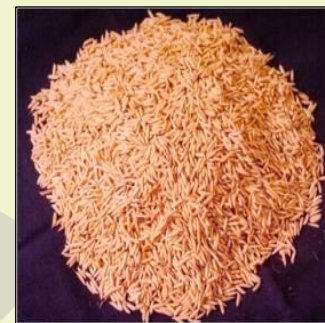
**Sher-E-Kashmir University of  
Agricultural and Sciences and  
Technology, Jammu**

**1. Basmati Rice: Jammu Basmati 118  
(IC637525)**

**Salient features:** Yield potential, 45q/ha, 20-25 % higher than Basmati 370. Early maturing variety, matures 25 days earlier to Basmati 370; lodging resistant variety; plant height 130-135 cm; high hulling (79.77%), milling

(71.70%) and head rice recovery (HRR) (61.00%); moderately resistant to major insect-pest and diseases; long slender grain with grain length on average 7.20 mm; cooked grain non-sticky aromatic with amylose content of 23%.

**Area of adoption:** UT of J&K



Jammu Basmati 118

**2. Basmati Rice: Jammu Basmati 123  
(IC637526)**

**Salient features:** Yield potential, 40q/ha (15-20 % more yield than Basmati 370); high hulling (79.03%), milling (73.49%) and head rice recovery (HRR) (69.09%); panicles with grain long slender, aromatic with average kernel length, 6.8 mm; moderately resistant to bacterial blight, leaf blast and brown spot.



Jammu Basmati 123



### 3. Basmati Rice: Jammu Basmati 138(IC637524)

**Salient features:** Yield potential, 42q/ha (20-25 % more than the potential yield of Basmati 370); high hulling (78.68%), milling (72.49%) and head rice recovery (HRR, 66.59%); moderately resistant to major insect –pest and diseases; long slender grain with grain length 6.81 mm; cooked rice grain non-sticky with medium amylose content of 23.2%; highly aromatic with score of 9.

**Area of adoption:** UT of J&K



Jammu Basmati 138

### 4. Radish (CR-45) \*

**Salient features:** Yield potential, 350 q/ha; early maturity, ready for market in 40-45 days; late in bolting; root snow white in color and up to 30-40 cm in length; resistant to forking behavior; seed yield: 6-8 q/ha.

**Area of adoption:** UT of Jammu and Kashmir.

### 5. Cherry tomato (SJCT-01/Jammu Cherry Tomato-09) \*

**Salient features:** Long duration variety; able to set fruit in low (cold set) and high (hot set) conditions; suitable for open and protected

cultivation; early in fruiting; resistant to insect pests (fruit borer and leaf minor) and diseases (blight and alternaria leaf spot); yield potential, 300-400 q/ha.

**Area of adoption:** UT of Jammu and Kashmir.

### 6. Broad bean (SJBB-01/RK-01) \*

**Salient features:** Bears 75-80 pods/plant; pod length 5-6 cm; 3-4 number of seeds/pods; average yield 80-100 q/ha.

**Area of adoption:** UT of Jammu and Kashmir.

*\*Varieties were released by State Variety Release Committee and notified vide letter no. DSCO/SSSC-Dev/2020-21/582-596 dated 30/12/2020.*

## MACHINES DEVELOPED

**Punjab Agricultural University, Ludhiana**

### Improved version of Lucky Seed Drill (with press-wheel technology)

**Salient features:** Enhances pre-emergent weed control, prolonged profile moisture conservation and avoidance of *krand* formation which would results in better crop emergence and



establishment enhancing the adoption the *tar water* direct seeded rice.

**Sher-E-Kashmir University of Agricultural and Sciences and Technology, Jammu**

**NFT Hydroponics system** with three independent floors along with automatic



nutrient and water flow system

**Salient Features:** Five fit long and 4 inch PVC pipes used to create hydroponics system. In this plan, the plants are placed in cups which are arranged in holders drilled into the pipes. The system is watered using a reservoir and pump. This is a closed system, with the water circulating between the pipes and the reservoir. This plan is ideal for growing a lot of small plants within a small area. The basic system can house anywhere from 63 plants of nine pipes. This system can be placed indoors or outdoors. If indoors, grow lights are of course essential. The hydroponics method used in this plan is called NFT. It is an excellent plan for growing plants like tomatoes, brinjal and mostly leafy vegetables.

**2. NFT Hydroponics system "A" shaped** along with automatic nutrient and water flow system

**Salient features:** PVC pipes (5 fit long and 4-inch) were used to create hydroponics system. In this plan, the plants are placed in cups which are arranged in holders drilled into the pipes. The system is watered using a reservoir and pump. This is a closed system, with the water circulating between the pipes and the reservoir. This plan is ideal for growing a lot of small plants within a small area. The basic system can house anywhere from 84 plants of 12 pipes. This system can be placed indoors or outdoors. If indoors, grow lights are of course essential. The hydroponics method used in this plan is called NFT. It is an excellent plan for growing plants like tomatoes, brinjal and mostly leafy vegetables as well as cucurbits wine crops.

**3. NFT hydroponics wooden round pipe system** along with automatic nutrient and water flow system

**Salient features:** PVC pipes of 5 fit length and 4 inch width were used to create hydroponics system. In this plan, the plants are placed in cups which are arranged in holders drilled into the pipes. The system is watered using a reservoir and pump. This is a closed system, with the water circulating between the pipes and the reservoir. This plan is ideal for growing a lot of small plants within a small area. The basic system can house anywhere from 51 plants of nine pipes. This system can be placed indoors or outdoors, if grow indoors, lights are essential. The hydroponics method used in this plant is called NFT. It is an excellent plan for growing plants like tomatoes, brinjal and mostly leafy vegetables.

## PRODUCTS

**Guru Angad Dev Veterinary and Animal Science University, Ludhiana**

**Product developed: Processed Yoghurt**

**Cheese:** Mr. Venus Basal, Assistant Professor in Dairy Technology has optimized the method for the manufacturing of 'Processed Yoghurt Cheese'.

**Salient features:**

Low fat with high mineral content, particularly calcium and phosphorus.

1. Product will give an additional healthy alternative to the consumers in comparison to other spreads available in the market.
2. A good source of nutritionally rich milk proteins in a diet.
3. Very low lactose content and thus makes it even suitable for the lactose intolerant people who normally cannot consume milk or milk or other dairy products.



**Area of adoption:** Pan India

## Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar

### Technologies:

1. Anti- *Staphylococcus aureus* beta-hemolysin nanobody, clone 7 5 submitted in "The Antibody Registry" AB\_2890612, Cat No. PJ\_Nb\_01 by Dr. Ajit Singh in 2021.

2. Anti- *Trypanosoma evansi* VSG murine monoclonal antibody, clone 1C2 submitted in "The Antibody Registry" AB\_2890170, Cat No. ASmAb\_02 by Dr. Ajit Singh in 2021.

3. Anti- *Trypanosoma evansi* VSG murine monoclonal antibody, clone 2E11 submitted in "The Antibody Registry" AB\_2890169, Cat No. ASmAb\_01 by Dr. Ajit Singh in 2021.

4. Sero-monitoring of FMD+HS combined vaccination in Haryana - Implementation thereof by Veterinary Microbiology in 2021 (continuing)

### Livestock protection

On the basis of data generated by the Scientists of LUVAS, the Government has introduced combined foot-and-mouth disease and hemorrhagic septicemia (FMD+HS) vaccine free of cost through Department of Animal Husbandry and Dairying, Haryana, for protection of cattle and buffaloes against these two very important economical diseases. The farmers should get their susceptible animals vaccinated against these diseases with combined FMD+HS vaccine now only twice in a year (instead of four shots earlier, twice for FMD and twice for HS).

## PACKAGE & PRACTICES

Dr Y.S.R. Horticultural University,  
Venkataramannagudem

### Crop production

Flower regulation in acid lime: Spraying of gibberillic acid, cycocel and potassium nitrate for flower regulation gives higher yields in summer crop.

### Crop protection

- *Whitefly management*: Spray Azadiractin 10,000 ppm @ 1ml/liter of water, fixing of yellow sticky traps, spraying of *Isaria fumivorosea*, an entomopathogenic fungi, biological control agent on white fly.
- Use of water, soil and gut probiotics increases immunity, and application of minerals helps in maintenance of physiology and moulting in shrimps.

## Punjab Agricultural University, Ludhiana

### Crop production (including crop/ plant protection)



**Saving water in spring maize and weed control in *kharif* maize using paddy straw mulch:** Uniform spread of paddy straw mulch at 7.5 t/ha saves 15% irrigation water in spring maize and controls annual weeds in *kharif* maize thereby enhances maize grain yield by 6%.

### Crop protection Botanicals:

Application of neem based biopesticide, Neem Kavach 0.15% @ 1 litre/acre (azadirachtin 1,500 ppm) is effective for management of rice stem-borers and leaf-folder grown under organic cultivation conditions. Whitefly, *Bemisia tabaci* can be managed with PAU

Homemade Neem Extract @ 1200 ml/acre in cucurbits.

## Sher-e-Kashmir University of Agricultural and Sciences and Technology, Jammu

### Processing:

- **Utilization of pumpkin (*Cucurbita moschata*) for the development of blended toffee:** Pumpkin and mango pulp can be blended (70:30::pumpkin: mango) for the preparation of toffees having 9.99 mg/100g ascorbic acid, 6.37 mg/100g  $\beta$ -carotene, 1.15 % crude fibre, 2.53 % crude protein, 10.19 mg/100g phosphorus and 14.62 mg/100g calcium content having shelf life of 6 months.
- **Formulation and evaluation of nuggets prepared from chickpea flour and green leaf powder:** Chickpea nuggets prepared from 94:6: chickpea paste and green leaf powder possessed 19.55 % crude protein, 2.63 % crude fiber, 7.07 mg/100g iron, 164.23 mg/100g calcium, and 51.47 % antioxidant activity. Nuggets maintained quality up to 1 year.
- **Standardization and quality evaluation of jamun-bael blended fruit cheese:** Fruit cheese prepared from jamun and bael pulp in the ratio of 40:60 % contained ascorbic acid (3.45 mg/100g), calcium (34.73 mg/100g), phosphorus (24.01 mg/100g), protein (2.23 %), carotenoids (22.53 mg/100g) and antioxidant activity (49.54%). The blended cheese can be stored at ambient conditions for 90 days.

## TEACHING

### Ch. Sarwan Kumar H.P. Krishi Vishwavidyalaya, Palampur

#### Teaching Infrastructure Developed: Prof

H. K. Chaudhary, Vice-Chancellor

inaugurated an ultra-modern virtual class room facility in the College of Agriculture on 13 January. He said that it will prove



VC inaugurated virtual class room

boon for the students as this facility is very much a part of New Education Policy. It will also prove useful for the tribal areas also.

### Dr Y.S.R. Horticultural University, Venkataramannagudem

#### Establishment of Horti. Business Incubation Centre (HBIC)

Horti. Business Incubation Centre (HBIC) has been established at the Dr Y.S.R Horticultural University, Venkataramannagudem, West Godavari District, Andhra Pradesh to nurture, guide and transform the horticulture graduates, potential farmers, rural youth and women especially Self Help groups (SHGs) into successful entrepreneurs. The Center imparts training on setting up of a horti-based enterprise, and develops competitive horti-business enterprises. It incubates the potential start-ups in the field of horticulture by providing technical assistance through capacity building, financial guidance and market linkages through business promotional activities to budding hortiprenuers. HBIC provides technical mentoring, business mentoring, capacity building, consultancy, business plan preparation etc. HBIC will focus on potential areas such as Plant propagation



and nursery management, Post harvest management, Bio-fertilizers and Bio-agents, Protected cultivation of high value crops, Value addition in flowers, Vermi composting, Bee keeping, Organic production of vegetables etc. The targeted beneficiaries are horticulture/agriculture graduates, farmers, rural youth and women.



Dr T. Janakiram, Vice Chancellor, Dr YSRHU with the women trainees of the adopted village of Dr YSRHU viz., Prakasaraopalem



Dr T. Janakiram, Vice Chancellor, Dr. YSRHU along with Special Chief Secretary, A.P. Skill Development Centre at the stall exhibited by the women entrepreneurs trained under HBIC

## Guru Angad Dev Veterinary and Animal Science University, Ludhiana

### GADVASU bags prestigious national postgraduate programme

College of Animal Biotechnology (CoABT) has been granted a prestigious master's teaching programme in Animal Biotechnology viz. M.Sc. (Biotechnology) by the Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India.

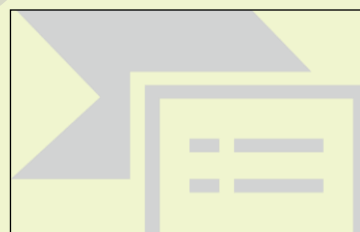
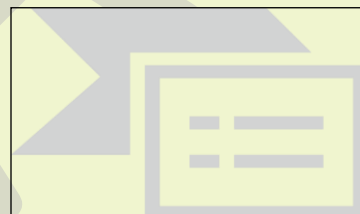
The programme includes a financial support of Rs 1.80 crore for strengthening of teaching and research facilities in the College. Every year 10 students from various states of the country will enrol for this postgraduate programme in CoABT, and DBT will provide fellowships and contingencies for their research work. Admissions to the programme will be made through the Graduate Aptitude Test-Biotechnology (GAT-B) conducted by the Regional Centre for Biotechnology on behalf of the Department of Biotechnology, Government of India.

Dr Inderjeet Singh, Vice-Chancellor congratulated Dr Yashpal Singh Malik, Dean CoABT and coordinator of the programme and his team for bringing a prestigious national level programme to the University, and said that it will ensure quality teaching, training and nurturing excellence in Biotechnology education for generating applied research and development activities in the country.

### Teaching Infrastructure Developed

#### Launch of website of Institutional Development Plan (IDP) and reference material

A dedicated website for IDP, GADVASU showcasing the events of past and forth-coming events, team members and resource materials for the students was launched by Dr R. C. Agrawal, DDG education and National Director, NAHEP. Four orientation booklets and Internship pack, and other scientific literature were released by Dr Inderjeet Singh, Vice-Chancellor, GADVASU for ready reference of students.



Dr R. C. Aggarwal, DDG (Agri. Education), ICAR launched resource material

#### Creation of new facilities under IDP

New facilities encompassing smart classrooms and advanced computer laboratories were created under IDP, GADVASU for strengthening academic programmes for improved learning outcomes. CCTV cameras were installed in-and-around campus to ensure safety of students, faculty and staff as well as the University stores. Personal lockers and bookcases were introduced for the safety of belongings and convenience of students.

## **Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar**

### **New Courses Introduced**

M.Tech in Dairy Technology, Dairy Engineering, Dairy Microbiology and Dairy Chemistry have been started from the academic year 2020-21.

### **Teaching Infrastructure Developed**

A new PG laboratory with all basic facilities to facilitate the PG program research activities in the College of Dairy Science and Technology, was established.

## **Punjab Agricultural University, Ludhiana**

### **Teaching Infrastructure Developed**

A new Smart Class Room cum Recording Studio was established in the College of Agriculture under the funds received from the ICAR.

## **Sher-e-Kashmir University of Agriculture and Sciences and Technology, Jammu**

### **Teaching Infrastructure Developed:**

- Library equipped with computer along with Wi-Fi facility, in the Division of Agronomy;
- classrooms in the Division of Biochemistry, Microbiology, Plant Physiology, Statistics and Computer Science upgraded to smart class room fitted with interactive panel and full internet connectivity for enhancing the teaching/learning experience;
- teaching by the faculty through online mode and distribution of e-notes; and
- online examination of UG & PG students.

## **EVENTS AND ACTIVITIES**

### **Bihar Animal Sciences University, Patna**

#### **Animal & Fisheries Resources Department, Government of Bihar Review Meeting**

University was privileged to host the review meeting of Animal and Fisheries Resources Department, Government of Bihar at Bihar Veterinary

College, Patna on 30 January 2021 under the chairmanship of Honorable

Union Minister, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, Shri Giriraj Singh. Minister of Animal and Fisheries Resources, Government of Bihar Shri Mukesh Sahni, Secretary Dr N. Saravana Kumar, Special Secretary-cum-Director (Fisheries) Dharmendra Singh, Managing Director, COMFED, Smt Shikha Srivastava, Director (Animal Husbandry), Dr Vinod Singh Gunjyal, Joint Secretary (Fisheries), Shri Nishat Ahmed, Special Secretary, Keshvendra Kumar and Vice-Chancellor Dr Rameshwar Singh, were present in this meeting.

Union Minister, Shri Giriraj Singh said that a lot of work has to be done in Bihar to take the inland fisheries forward. Describing snail farming as an opportunity for a better trade, he said that there is no hatchery system of snail in the country but even today it is a big source of protein for the poor class, which can be worked on. Talking about artificial insemination and embryo transfer technology, he said that we need to research on how to get better results at low cost in IVF technology, but before that it is necessary to provide training to the para-vets and establish a trained manpower. He expressed concern over the lack



of green fodder, saying that the yield of silage, moringa, sugarcane grass, is needed to be increased.

Talking on the development of fisheries, he said that there is a lot of power in the wetland of Bihar, promote fisheries in wetland, and give incentives on production so that production can be increased. Cage culture also needs to be promoted. The Union Minister laid special emphasis on the establishment of call centers for animal health care, fish rearing and sex-sorted semen.

### **Training Program on Technique of Hygienic Production and Processing of Meat**

One day training on Technique of hygienic production and processing of meat was organized under joint aegis of university and National Agricultural Higher Education Project on 4 February 2021. Many restaurant owners, meat shopkeepers of Patna including students and teachers were present. On this occasion Vice Chancellor Dr Rameshwar Singh said that diseases are not just limited to the eaters but those who are associated with this employment are also at great risk. "Make the customer believe that the method you are using is practiced keeping in mind the health of the customer and delivering the best product must be ensured, this will build a trust of the customers towards your business" said Vice Chancellor. Further, he said that GI tagging of Champaran Meat of Bihar will be done soon by the University, which will give it world class recognition. "Taking small steps in the entire process of cutting the meat and opting for a safe and hygienic process of delivering the fresh meat can lead to the growth in this business", said Dr J.K. Prasad Dean, Bihar Veterinary College. He said that following the hygiene measures will increase the credibility of the business. Director, Research, Dr Ravindra Kumar said that it is very important to take care of meat storage after cutting it, to save the customer and society from getting sick. Dr Sushma, Head-Department-cum-Training

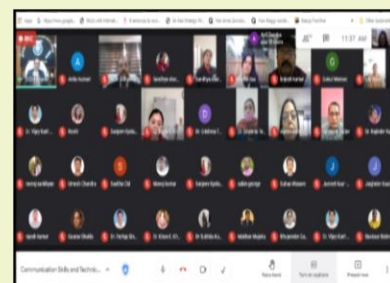
Coordinator, Department of Livestock Products Technology, said that eating meat immediately after it is cut is scientifically wrong, but Indian cooking methods make it edible. "Do not cut it lying on the ground, it meets soil and infects the meat with many harmful bacteria and viruses which are harmful to human body", she said. She laid special emphasis on the packaging of meat as well as attention to the dress (apron, gloves, head cover, mask) while cutting the meat.

### **Chaudhary Charan Singh Haryana Agricultural University, Hisar**

#### **Trainings organized**

In the severe pandemic era, CCS HAU under the overall guidance of worthy Vice-Chancellor and other officials, conducted the following trainings during the period under report.

- The Academy of Agricultural Research & Education Management (AAREM) of Directorate of Human Resource Management organized an Online Refresher Course on "Communication Skills and Technical Writing" from Feb 3-23, 2021. This course was open for Extension personnel/ Scientists/ Teachers working in SAUs/ICAR Institutes and related organizations. The course was specially designed to enhance proficiency in comprehension and presentation, communication among individuals and groups, develop communication skills for meaningful and effective interaction, sensitize participants to principles of communication, and technical writing for effective discharge of their duties



**CCS HAU VC and Director (HRM) interacting with the participants**



and personality development. Fifty-one participants from different parts of the country got registered for the course, 20 participants were from CCS HAU while 31 participants were from the states of Rajasthan, Telengana, HP, Punjab, J&K, Kerala, Maharashtra etc.

- IC Home Science College of CCS HAU, Hisar concluded the training of rural and home work experience at the Senior Secondary School of village Nyoli Kalan on the



CCS HAU VC addressing on the occasion of International Women's day

occasion of International Women's Day (8 March). The training program commenced from 17 Feb and concluded on 8 March 2021. During this training, college students apprised the village women about new techniques. University Vice-Chancellor was the chief guest in this program and the program was presided over by Dean, College of Home Science. On this occasion, Vice-Chancellor said that women are the foundation of the country and this day is a day to celebrate women who work hard to achieve personal and professional goals.

- Department of Soil Science, CoA, CCS HAU in collaboration with Agriculture and Farmers Welfare Department of Government of Haryana organized two trainings on "Soil and Water Testing" for



school teachers and Assistant Professors regarding establishment/ setting up of Soil Testing Laboratories in schools and colleges. These trainings were organized from 4-6 March 2021 (17 participants) and March 18-20, 2021 (21 participants). A total of 38 school teachers and Assistant Professors were trained and issued certificates on successful completion of training. The certificates were issued to each participant jointly by the Department of Soil Science and Agriculture and Farmers Welfare Department of Government of Haryana.

- A Farmers' training was conducted at Research Farm of the AICRPDA Centre of CCS HAU, Hisar in which about 140 farmers of nearby villages of Budak, Balawas and Nalwa participated.



Registrar cum Director of Extension Education addressing the farmers

On this event, Registrar-cum-Director of Extension Education of the University, was the Chief Guest. He encouraged the farmers to adopt the techniques provided by the University on their farm and called for greater participation in such programs. On this occasion, farmers were also taken to the field area to get an overview of the techniques adopted in the rainfed area. All the farmers appreciated the techniques adopted particularly in RH 725 variety of mustard on the field and also resolved to adopt these techniques on their fields.

### Farmers' Fair

#### A two-day virtual *Kisan Mela (kharif)-2021* at CCS HAU, Hisar concluded

To save the falling underground water level and the fertility of the depleted land, farmers will have to adopt water conservation and crop diversification. By doing this, on one hand,

water will be saved, on the other hand, the farmer will also get financial benefit and the environment will also be safe. These ideas were expressed on the occasion of concluding the *Kisan Mela* by Dr R.C. Aggarwal, DDG (Agril. Education), ICAR, New Delhi. The program was presided over by the Vice-Chancellor of the University. On this occasion, the Chief Minister in his message said that Haryana is an agrarian state and its economy depends on agriculture. After the formation of separate state of Haryana, there has been a significant increase in the area and yield of major crops. All this has been possible only with the collective efforts of farmers and scientists. The Chief Minister congratulated the University administration as well as farmers, extension agencies and others involved in agricultural development for the successful organization of the fair. Earlier the Vice-Chancellor of the University welcomed all the dignitaries joining the programme online and gave detailed information about the *Kisan Mela* organized by the University. He told that around 51 thousand people got registered through mobile phones at the fair. Apart from this, around 3 lakh people visited the site of the University. Also, a Virtual Agro-Industrial Exhibition was organized to provide an opportunity to the industrial firms dealing with agriculture and allied fields to display their



CCS HAU VC and others present during virtual Kisan Mela



CCS HAU VC releasing book on the occasion of virtual Kisan Mela



DDG (Agril. Edu.) addressing online at the closing ceremony of the Kisan Mela

products to make the visiting farmers aware of the utility of these products.

### Demonstration Mela

Technology and Machinery Demonstration Mela was organized on 12 March 2021 through virtual mode by the Department of Farm Power and Machinery, College of Agricultural Engineering and Technology, CCS HAU, Hisar and broadcasted among the farmers of Haryana State. Approximately 700 farmers have registered in this Mela and benefitted through the knowledge provided by the experts. Demonstration of Processing Machines and Solar Gadgets in "*Swadeshi Mela*" was organized at old Government College Ground, Hisar from 10-14 Mar 2021.

### Webinars

#### Webinar on "National Education Policy"

National Education Policy-2020 will play a pivotal role in making students global citizens. For this, teachers will have an important role in the implementation of this policy. These views were expressed by Vice-Chancellor of GJUS&T, Hisar, in a one-day online webinar held at CCS HAU, Hisar. The webinar was chaired by Vice-Chancellor, CCS HAU.



GJUS&T VC and CCS HAU VC and Registrar interacting with the participants

Registrar of University welcomed all the guests at the inauguration of the webinar. The main theme of the webinar was the role of teachers in the implementation of the National Education Policy. This webinar was organized by the Board of Education of India and NITI Aayog in collaboration with CCS HAU. In the webinar, CCS HAU Vice-Chancellor said that the future of the country lies on the shoulders of teachers. In this webinar, more than 200 academicians gave their suggestions on various topics.



### Webinar on “Role of Medicinal Plants in Corona Prevention”

Presently, medicinal plants play an important role in preventing the worldwide corona epidemic. Therefore, every person should use them according to Ayurvedic medicine guidelines.

These views were expressed by Vice-Chancellor, CCS HAU, Hisar during an awareness seminar on “Medicinal, Aromatic and Potential crops for Crop Diversification and Human Health” held on



University VC addressing the gathering



University VC releasing the book

17 March 2021 at CCS HAU, Hisar. He further emphasized that in the current adverse conditions, the importance of medicinal plants is increasing globally and called upon the farmers to adopt the cultivation of quality medicinal plants. He said that the Government of India has also set up the Ministry of AYUSH to promote medicinal crops and Ayurveda. The Ayurveda Physician from the General Hospital, Hisar gave detailed information about the use of medicinal herbs in health care and diagnosis of diseases. On this occasion, Vice-Chancellor also released the book “*Medical Garden at a Glance*”. The program was organized by the Department of Genetics and Plant Breeding, College of Agriculture, CCS HAU, Hisar.

### Webinar on “Catch the Rain”

The NSS unit of College of Agriculture organized a webinar, under the National Water Mission’s (NWM) campaign “Catch the Rain”, with the tagline “Catch the rain, where it falls, when it falls”, on Mar 24 2021 in collaboration of *Nehru Yuva Kendra*, Hisar. In this webinar around 50 NSS volunteers participated and shared their experiences.

### Ch. Sarwan Kumar H.P Krishi Vishwavidyalaya, Palampur



The CSKHPKV, Palampur organized “International Women’s Day” on 8<sup>th</sup> March 2021. Glimpses of the programme are shown in photographs below:

The university also organized 115 extension trainings, two farmers’ fairs and six webinars.

One of the webinars was on “National Education Policy 2020: Roadmap of Community Science Education in Present Scenario” organized on 28 January 2021

### Dr Y.S.R. Horticultural University, Venkataramannagudem

#### Workshop

1. Dr B.K.M. Lakshmi, Senior Scientist (Plant Pathology) and Head, Dr R. Rajyalakshmi, Senior Scientist



Importance of Kitchen gardens



(Horticulture) and Dr G. Sravanthi, Scientist (Entomology), MRS, Nuzvid organized 'Importance of Kitchen gardens' for women Self Help Groups in adopted village of Raavicherla, under Vice-Chancellor-to-village programme on 23 January 2021.

- Dr M. Janaki, Scientist (Horticulture) and Head, HRS, Peddapuram created awareness on importance of Kitchen gardening and nutritional security to interested farmers and Aganwadi center of



**Awareness on importance of Kitchen gardening to interested farmers**

adopted R.B. Patnam village of Peddapuram mandal on 30 January 2021 as part of Vice-Chancellor to Village flagship programme and distributed vegetable seeds and sweet potato vine cuttings to farmers.

- KVK, Venkataramannagudem organized one-day awareness work shop on "Energy conservation and energy efficiency". Dr T. Janakiram, Vice-Chancellor attended as chief guest and explained the importance of energy conservation in horticultural sector on 12 February 2021.



**Energy conservation and energy efficiency**

- KVK, Pandirimamidi conducted One-day Awareness cum Workshop on "Energy Efficiency and Energy Conservation" in coordination with District Level major stakeholders like APEPDCL, APSECM, EESL, APMIP, APIATP, Usha International

Pvt. Ltd, and Department of Horticulture on 20 February 2021.



**Energy Efficiency and Energy Conservation**

## Training

- KVK, Venkataramannagudem Conducted Virtual training programme on Beekeeping in Collaboration with Department of Horticulture, Guntur from 5 to 8 January 2021.



**Beekeeping in Collaboration**

- KVK, Venkataramannagudem conducted 3-day training cum exposure visit from 7 to 9 January 2021 on "Vegetable cultivation, value addition of fruits" to Krishna district farmers which was supported by GUIDE, NGO.



**Vegetable cultivation, value addition of fruits**

- KVK, Venkataramannagudem conducted 3-day skill training program on "Dry flower technology" from 19 to 21 January 2021 to rural women for encouraging women entrepreneurs.



**Dry flower technology**

4. KVK, Pandirimamidi conducted 3- day state level training programme on Improved Cultivation Practices in Cashew sponsored by DCCD, Kochi from 21 to 23 January 2021.



**Skill development training program on processing of Cashew nuts**

5. KVK, Pandirimamidi conducted 3-day skill training programme on “Mushroom production technology” under TSP- 2020-21 from 28 to 30 January 2021.



**Mushroom production technology**

6. KVK Pandirimamidi, organized 3- day skill development training program on Processing of Cashew nuts for 50 trainees (20 trainees of PKVY and 30 VDVK's – ITDA Velugu) from 28 to 30 January 2021 under Tribal Sub Plan 2020-21.



**Participants of Cashew processing training**

7. KVK, Venkataramannagudem organized one-day training programme on “Soil health management” to farmers in coordination with M/s. National Fertilizers Limited.



**Soil health management**

8. On 9 March 2021, KVK, Vonipenta conducted awareness programme to the farmers on



**Energy Efficiency and demand side management in agri. sector**

“Energy Efficiency and demand side management in agricultural sector”.

9. KVK, Pandirimamidi organized 3-day skill development training program on “Nursery Management in Horticultural Crops” from 8 to 10 March 2021 under SC sub plan 2020-21 for 22 trainees.



**Participants of Nursery training**

10. From 15 to 17 March 2021, KVK, Pandirimamidi conducted 3-day skill training program on “Value addition in Palmyrah”.



**Participants of training programme on Value addition in Palmyrah**

## Farmers' fair

### Udyana Sandarashana-2021

Organized “Udyana Sandarashana-2021” at University campus, Venkataramannagudem on 25 January 2021, for the benefit of farmers, village Agriculture /Horticulture Assistants of RBKs and field level extension officers of Department of Horticulture /Agriculture.



**Udyana Sandarashana-2021**

### Trade Fair on Organic Products under PKVY



**Trade Fair on organic products under Paramparagat Krishi Vikas Yojana (PKVY)**



The KVK, Venkataramannagudem organized the Trade Fair on organic products under Paramparagat Krishi Vikas Yojana (PKVY) on 31 March 2021. On 27 March 2021, KVK, Pandirimamidi conducted "Trade Fair on Organic Products" as part of the project, "Paramparagat Krishi Vikas Yojana (PKVY)" being implemented for PGS-India organic certification of 20 cashew farmers at Kakavada village of Rampachodavaram mandal. KVK, Vonipenta organized Trade fair under PKVY programme on 31 March 2021.

### Symposium

IPS Central Zone Symposium in coordination with Dr YSRHU Indian Phytopathological Society (IPS), New Delhi in association with Plant Protection Advisory Cell (PPAC), Dr Y.S.R Horticultural University



IPS Central Zone Symposium in coordination with Dr. YSRHU

organized 2-day IPS-Central Zone Symposium in virtual mode under the theme "Advances in Phytopathology" on 6 - 7 January 2021.

### Guru Angad Dev Veterinary and Animal Science University, Ludhiana

The university organized following workshop/trainings/webinars during January-March 2021.

### Workshops

#### Workshop on Nili Ravi buffalo

Krishi Vigyan Kendra (KVK) of GADVASU at Booh (Tarn Taran) organized a workshop on Nili Ravi buffalo at its campus. A total of 200 farmers



participated in the programme for honing up their knowledge and skills with scientific inputs

from the University expert(s). Dr Inderjeet Singh, Vice-Chancellor graced the occasion as the Chief Guest and said that Nili Ravi buffalo, a native to the state of Punjab plays a pivotal role in fulfilling the requirement of milk and dairy products in the region. Hence, there is a need to conserve the buffalo breed to help farmers to get handful economic returns. Dr Singh expressed concerns about decline in the Nili Ravi buffalo population, and the production of more non-descript animals, which are not having true to breed characteristic.

The Vice-Chancellor inaugurated the Animal Science Laboratory at KVK, in which semen of buffalo bull of Nili Ravi will be available to buffalo farmers. The state-of-the-art facility of semen bank will be vital for improving the overall production and productivity potential of Nili Ravi buffaloes. Farmers brought Nili Ravi buffaloes and bulls for display in the workshop and best buffalo and bull were awarded in the event. An informative pamphlet on Nili Ravi buffalo was also released on the occasion.

#### Workshop on Recent Advances in Livestock Management

Directorate of Extension Education, GADVASU organized workshop on 'Recent advances in Livestock management for enhancement of livestock productivity', for scientists of livestock production from KVKs of Punjab. Expert(s) discussed the possibilities of integrated farming systems to increase the income of pig and fish farmers.



Dr Inderjeet Singh, Vice-Chancellor highlighted the efforts being undertaken by the University for enhancing livestock productivity and urged the scientists to encourage farmers for record keeping and identification of elite animals for propagation of the superior germplasm.



### Workshop on Antibiotic Susceptibility Testing

The Department of Veterinary Microbiology and Centre for One Health of GADVASU organized national level online workshop for academicians, research scholars and Veterinary Officers for capacity building on Antibiotic Susceptibility Testing under the scheme 'ICAR Niche Area of Excellence on Antibiotic Resistance: Animal Human Interface'. A total of 60 professionals participated in the event. Experts apprised the participants about the upcoming role of participatory epidemiology in context with the public health issues like antimicrobial resistance, and explained various case studies going on at Centre for One Health in participatory mode to address the antimicrobial resistance at human-animal-environmental interface. The participants were provided an overview on practical application of the conventional as well as novel molecular tools for Antimicrobial Resistance Testing.

### Training

#### Training(s) on Dairy Farming

- GADVASU conducted dairy farming training course aimed at giving an impetus to farmers to start their own enterprises to bring diversification in agriculture and generate employment avenues, which is need of the hour for economic sustainability. The training programme was conducted on various aspects of dairy farming viz. breeds and breed improvement, reproductive management, artificial insemination, comfortable sheds, feed and fodder, green fodder availability round the year, vaccination and deworming, clean milk production, first-aid, value addition of dairy products, etc. An exposure visit to dairy farm, pathology laboratory, clinics and information centre was also organized to



inculcate entrepreneurship and practical skills amongst the farmers. Similar training programme was also organized by KVK, Booh in which 25 farmers participated.

- KVK of GADVASU at Handiaya (Barnala) organized training programme on scientific dairy farming in association with PAMETI, Ludhiana and Department of Agriculture, Barnala. A total



35 farmers participated in the training programme. Expert(s) imparted tips on scientific dairy farming to the participants encompassing the topics of housing, feeding, breeding, management requirements, fodder production and conservation, dairy nutrient requirements, computation and formulation of balanced ration, etc. An exposure visit of trainees was also arranged at Dairy Farm, Goat Farm and Poultry Farm at GADVASU, Ludhiana.

- KVK, Booh conducted a vocational training on 'Value addition of dairy produce for self-employment' at Village Naurangabad (Tarn Taran). Experts encouraged the participants for reconciling a subsidiary occupation by adopting value addition techniques for dairy produce, and delivered talks on nutritional profile of milk, scientific milk processing techniques, value addition to milk, price fixation and marketing techniques of value added milk products, etc. The participants were also informed about the financial support facilities provided by government agencies to start these ventures.

#### Entrepreneurship Oriented Training on Ornamental Fish Breeding Techniques

Department of Aquaculture, College of Fisheries, GADVASU, conducted training on 'Breeding and Seed Production of Livebearer Ornamental Fish' for developing entrepreneurial skills amongst graduating

students, under ICAR Development Grant 'Strengthening and Development of Higher Agricultural Education in India SC-SP



Component'. The students were apprised of the promotional schemes offering fiscal support for ornamental fisheries entrepreneurship and were guided to develop business plans for establishing small scale backyard ornamental fish breeding and seed production unit, as a start-up enterprise with less land and credit requirements. A video on ornamental fish breeding, developed by the department under the aforementioned scheme of ICAR, was also provided to the students for future reference and guidance.

### Training on Scientific Rearing of Livestock

Department of Livestock Production Management, GADVASU organized two training programmes on 'Scientific goat farming as a source of income for rural farmers' and 'Rural upliftment through scientific poultry farming' under the aegis of Rashtriya Krishi Vikas Yojana (RKVY) programme operational in the University. A total of 25 farmers actively participated in each of the training programmes and got benefitted.

### International e-Training Course on Biotechnological Approaches

College of Animal Biotechnology, GADVASU organized training course on 'Biotechnological Approaches in Animal Research and Disease Diagnosis' aimed to provide skill-based learning of biotechnological techniques to post-graduate students, faculty and other stakeholders of veterinary and animal sciences. A total of 127 participants attended the online training. Experts disseminated scientific knowledge on burgeoning techniques of molecular biology that could make a significant contribution to the scientific communities and societies. The strategies of vaccine development

and production of rapid diagnostic assays were also discussed.

### Training programme(s) on Goat Farming

- Department of Veterinary and Animal Husbandry Extension Education, GADVASU organized three training programmes on Goat Farming for the empowerment and upliftment of small and marginal farmers by disseminating them knowledge about the scientific livestock rearing practices. The training programme encompassed the diverse topics of goat farming viz. breeds, breeding, management, shed design, weather management, vaccination protocols, diseases and their prevention, value addition of meat, milk, economics of goat farming etc. The practical training on handling of goats, measuring temperature, signs of healthy animals, age determination by seeing dentition and hoof management was also imparted.



- KVK of GADVASU at Booh (Tarn Taran) organized a Vocational Training Programme on Scientific Goat Farming. A total of 25 farmers participated in the training programme and got benefitted. Expert(s) honed up knowledge of participants about feed and fodder management for goats, goat breeds, reproductive management, diseases and their possible treatment, lay out plans, nutritive value of goat milk and its therapeutic importance, etc. Dr Inderjeet Singh, Vice-Chancellor, encouraged the participants to



adopt goat farming as a subsidiary enterprise with small capital investment and advised them to adopt breeding techniques as per the University recommendations.

### **Entrepreneurial Training in Aqua Clinic Techniques**

Department of Aquatic Environment, College of Fisheries, GADVASU conducted 'Entrepreneurial Training Program in Aqua Clinical Techniques' for postgraduate students under the aegis of the ICAR Development Grant - 'Strengthening and Development of Higher Agricultural Education in India - SC-SP Component'. The students were imparted practical knowledge from setting up an 'Aqua-Clinic' to the advanced techniques in disease diagnosis and management, with the major objective of fostering their mindset towards entrepreneurship in aqua-clinical practices. Students received hands on training for evaluating antibacterial activity of phage through spot and plaque assays. Entrepreneurial video on aqua-clinical techniques and an aquaculture health management guide for prevention and treatment of common diseases in freshwater fish developed under the same grant, were also provided to the students for reference.

### **Training programme on 'Skill Development in Viral Disease Diagnosis and Prophylaxis'**

College of Animal Biotechnology, GADVASU conducted training programme on 'Skill Development in Viral Disease Diagnosis and Prophylaxis', under the aegis of the research project 'Molecular characterization of Canine Distemper Virus field isolates for selection of suitable vaccine candidate(s)' under the DBT-GADVASU-Canine Research Centre and Networks programme. The training was attended by 90 scientists. The programme was also live streamed on *Facebook*.

### **Vocational Training on Scientific Pig Farming**

KVK, Booh organized Vocational Training Programme on 'Scientific pig farming' in collaboration with Agricultural Technology

Management Agency (ATMA), Government of Punjab. A total of 25 farmers attended the training programme and enriched their knowledge about breeds and feeding management of pigs, different Punjab Government schemes related to pig farming, marketing of pigs, soil health and animal production, nutritive value of pig meat, waste products and their management, lay out plans, vaccination in pigs, reproductive management and artificial insemination, economic evaluation, record keeping etc.

### **Training Programme on Hygienic Meat Production and Processing**

Department of Livestock Products Technology, GADVASU, organized a training programme on 'Hygienic Meat Production and Processing for Value Added Meat Products' for the meat industry personnel and



entrepreneurs belonging to SC/ST categories with an intention to educate them about clean meat production practices, preparation of value added meat products and entrepreneurship development, under the financial support by Rashtriya Krishi Vikas Yojna. The training comprised the topics of basics of meat hygiene, visit to poultry processing plant, acquaintance with the machinery and equipment, slaughtering and dressing operation of poultry, sheep, goat and pig etc.

The trainees were also apprised about the FSSAI norms and other legislations for setting up a butcher's shop. Practical demonstration of preparation of chicken pickle and preparation of value added emulsion based meat products was also provided.

### **Training programme(s) on Poultry Farming**

Department of Veterinary and Animal Husbandry Extension Education, GADVASU organized two training programmes on Poultry Farming. The participants were imparted basic knowledge on breeds and breeding techniques,



feeding management of different categories of birds, day-to-day care and seasonal management, shed design and structures, weather management, light requirement, vaccination protocols, diseases and their prevention, value addition of egg and meat, economics of poultry farming business, etc.



### Virtual Training on Best Management Practices for Shrimp Farming

College of Fisheries, GADVASU, organised training programme on 'Best Management Practices (BMPs) for Shrimp Farming'. A total of 78 participants attended the training programme and got benefitted. The participants were sensitized about the importance of abidance to biosecurity, BMPs and food safety standards in successful adoption of shrimp farming in inland states like Punjab, Haryana, Rajasthan, Uttar Pradesh, etc.



### Training Programmes on Dairy Entrepreneurship/Farming

- College of Veterinary Science, Rampura Phul, GADVASU conducted training programme for 'Dairy Farmers/Entrepreneurs' under Skill Development Programme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) sponsored by the Ministry of Agriculture and Farmers Welfare and Ministry of Skill Development and Entrepreneurship (Agriculture Skill Council of India). The training programme covered different aspects



of dairy farming viz. selection of quality dairy animals, scientific breeding strategies, shelter/housing, feeding, reproduction, healthcare and processing of milk for value addition etc. to inculcate entrepreneurship skills amongst the dairy farmers.

- Veterinary Polytechnic and Regional Research and Training Center of GADVASU at Kaljharani, Bathinda organized Dairy training



programme under the scheme 'RKVY-12-DEE: Enhancement of Production and Productivity Potential of Livestock, Poultry and Fisheries Sector for Socio-economic upliftment of the farmers of Punjab'. A total of 30 dairy farmers belonging to SC category participated in the event and gained knowledge from expert(s) about scientific dairy farming

### Skill Development Training Programmes on Livestock

Department of Livestock Production Management, GADVASU organized two training programmes on 'Backyard poultry farming for inculcation of entrepreneurial skills among young farmers of Punjab' and 'Experiential learning for youth of Punjab for developing entrepreneurial skills in piggery' under the aegis of ICAR, Entrepreneurial development programme for SC Beneficiaries. The participants were imparted hands-on-training on various aspects of backyard poultry farming and experts delivered lectures with practical tips on basic principles of housing and rearing, brooding care, nutritional requirements and health aspects of poultry. Farmers were apprised about various aspects of pig farming viz. care of young piglets and adults, housing, breeding,



health and marketing.

### **Training on Skill Development on Advanced Bioinformatics in Genome Analysis**

College of Animal Biotechnology and Project Monitoring Unit of the Department of Biotechnology of GADVASU conducted a 21-day e-training programme on 'Skill Development on Advanced Bioinformatics in Genome Analysis of Livestock and Pets' for faculty, scientists, researchers, and postgraduate students. The training sponsored by the Department of Biotechnology-funded collaborative research project: 'Parentage determination and cytogenetic profiling in dogs' was attended by 263 participants. Experts delivered talk(s) and hands-on training on programming languages (R, Python, Perl), advanced bioinformatics tools, and pipelines for big-data analysis.

### **Training on 'Nutritional Deficiency in Dairy Animals'**

KVK, SAS Nagar (Mohali) organized training programme on 'Nutritional Deficiency in Dairy Animals' for SC/ST farmers at village Khizrabad. Expert(s) encouraged the trainees to rear animals in scientific manner and adopt balanced ration for dairy animals for maximizing their economic returns.



Participants were imparted scientific knowledge about feed formulation of dairy animals, nutritional deficiency in dairy animals and their remedies. Mineral mixture and uromin licks were distributed amongst trainees, free of cost.

### **International e-symposium on Immunology**

College of Animal Biotechnology, GADVASU organized International e-symposium sponsored by the Society of Immunology and Immunopathology (SIIP) under the theme "Emerging Focus on Immunology in Augmenting Animal and Human Health". Dr B. N. Tripathi, Deputy Director General (Animal

Sciences), ICAR, New Delhi inaugurated the e-symposium along with Dr Inderjeet Singh, Vice-Chancellor. A total of 163 participants took part in the symposium. Dr Praveen Malik, Animal Husbandry Commissioner, Government of India, New Delhi was the Chief Guest of the valedictory function along with Dr K.P. Singh, Vice-President, SIIP and Dr R.S. Chauhan, Secretary General, SIIP. The symposium concluded with recommendations to have state-of-the-art national level research centre for immunological work to effectively control various emerging and re-emerging diseases by One Health approaches.



### **International webinar on Next Generation Sequencing**

College of Animal Biotechnology, GADVASU organised an international webinar on the successes and challenges of Next Generation Sequencing (NGS) in Veterinary Diagnostics under the Institutional Development Plan

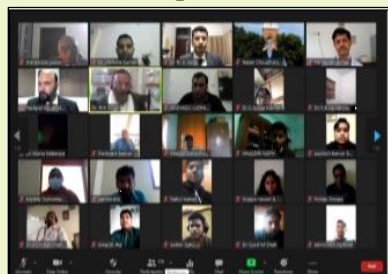


(IDP) cell of the University. Experts shared that the DNA sequencing has revolutionized the field of genomics and is helpful in characterization of the whole genome sequence of a previously identified pathogen. The usefulness of technique in mapping and comparing the respiratory viromes of commercial chickens, backyard poultry, and migratory birds was discussed. The techniques like NGS and genome sequencing are pivotal for early detection of pathogens and taking apt measures in combating COVID 19 like infections. Around 100 scientific fraternity participated in the webinar, which was also live streamed on 'Facebook'.



### International Webinar on COVID 19 Pandemic: Concerns and Perspective

College of Animal Biotechnology, GADVASU organized an International Webinar on 'COVID 19 Pandemic: Concerns and Perspectives' in collaboration with the Indian Virological Society (IVS) for updating the knowledge of participants on the COVID 19 pandemic. The webinar attended by more than 500 participants took in its ambit the invited talks and panel discussions by eminent scientists from the national and international academics, research and industry. The webinar was also live streamed on *Facebook* and *YouTube*. Experts elaborated the structure and transmission of COVID 19 virus, efforts for the development of COVID 19 vaccine, challenges associated with its safety, transport and delivery of vaccine, interconnection of SARS-CoV 2 with emergence of various infectious diseases, role of veterinarian in response to COVID 19 situation and Indian COVID-19 scenario, supported by authentic data.



### International Women's Day

- College of Veterinary Science, Rampura Phul celebrated International Women's Day, organizing a webinar on '**Role of Women in Veterinary Science**'.
- Krishi Vigyan Kendra, Booh (Tarn Taran) celebrated the International Women's Day under the theme '**Women in Leadership in Agriculture: Entrepreneurship, Equity and Empowerment**'. A total of 30 women participated and interacted with panel of experts for opportunities of empowerment in agriculture, livestock and allied sectors. The participants were encouraged to practice subsidiary



occupation viz. value addition of milk and meat products, garment designing and embroidery etc. to abet their household income to nourish their family adequately.

- KVK, S.A.S. Nagar (Mohali) celebrated International Women's day at its premises. Experts apprised the participants about the women empowerment and their role in the present scenario. In recognition of their efforts, progressive women were felicitated and vegetables seed kits were distributed amongst the participants.

### National Science Day Celebration

College of Veterinary Science, Rampura Phul celebrated National Science Day on 28 February under the theme '**Future of Science Technology and Innovation (STI): Impacts on Education, Skills and Work**' to develop interest in Science amongst youth and make them realize its importance. An essay writing and elocution competition was conducted for undergraduate students.



College of Fisheries, GADVASU celebrated 'National Science Day' in virtual mode. Experts delivered talks emphasizing the importance of studying the fundamentals of genetics to understand the mechanisms of diseases in humans. A College Level Quiz Competition was also organized for students of the college in which a total of 53 students took part.

### Scientist-Dairy Farmer Interaction

KVK, SAS Nagar (Mohali) organized 'Scientist-Dairy Farmers Interaction' at Chunni Kalan, Mohali. More than 40 dairy farmers took part in the





programme and got benefitted. Expert(s) talked about the prevalence of mastitis in dairy animals, predisposing factors enhancing the mastitis menace, scientific management and tips for preventing and control of the mastitis, feed composition to ameliorate the effects of heat stress, feed additives like yeast, vitamins and bypass fat to be included in the ration, making of pellet cattle feed, etc. KVK also put up its stall displaying various extension activities. Mineral mixture, uromin licks and bypass fat were also distributed to the dairy farmers.

### **Awareness programmes on Crop Residue Management**

KVK, S.A.S. Nagar (Mohali) organized workshop on ‘**Sustainable Approaches for Management of Crop Residues**’ for the officials of district. A total of 38 officials from three departments viz. Agriculture and Farmers Welfare, Horticulture and Soil Conservation participated in the workshop held to deliberate upon the various aspects of stubble burning. The significance of crop residues management in maintaining soil health and the issues and challenges being faced by the farmers in crop residue management were discussed.

## **Junagadh Agricultural University, Junagadh**

### **Trainings**

#### **Soil Testing as a Business Opportunity**

Department of Agricultural Chemistry and Soil Science, College of Agriculture, JAU, Junagadh, organized 5-day online vocational training programme on “Soil Testing as a Business Opportunity”

during 4-8 January 2021, under NAHEP-IDP. The training covered topics like soil



**Training on Soil Testing as a Business Opportunity**

characteristics, testing techniques and methods of interpretation of soil data, so as to make it more useful in context of business competition in quality. Students (90) of B. Sc. (Hons.) Agri. participated in the training that perform task with due consideration to safety rules, accident prevention regulations and environmental protection.

### **Cutting Edge Epitome of Post-Harvest Processing and Management of Horticultural Crops**

Department of Horticulture, College of Agriculture, JAU, Junagadh, organized training

programme on “Cutting Edge Epitome of Post-Harvest

Processing and Management of Horticultural

Crops” during 18-22 January,

2021. The training covered different post-harvest techniques, management and methods of preparation of various recipes, packaging and marketing. In this training programme, 596 participants including 336 UG students of B. Sc. (Hons.) Agriculture/Horticulture, JAU, Junagadh and 260 participants from faculties and other SAUs, participated.



**Training on Cutting Edge Epitome of Post-Harvest Processing and Management of Horticultural Crops**

## **Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar**

### **Workshop**

A two-day online workshop on “Modern Techniques of Antibody Production” under the prestigious ICAR-Niche Area of Excellence Project on “Phage Display Techniques for Production of Veterinary Immuno biologicals without Sacrificing Animals”, was organized by the Department of Veterinary Microbiology from

25th-26th March 2021. Through this workshop, around 40 participants which included faculty members and students from various parts of the country were exposed to the basic knowledge about antibodies, their structure and function, conventional and modern approaches for antibody production, production and purification of nanobodies, hybridoma technology, display system for antibody production with special reference to Phage Display Technology and application of recombinant antigens and antibodies in DIVA strategy.



**Extension education awareness program organized by the Dept. of Vety. Microbiology, LUVAS on 12.03.2021 for progressive farmers/ women entrepreneurs/ rural youth of Haryana on "Control and Prevention of Infectious Diseases".**

## Trainings

1. An extension education awareness program was organized by the Department of Veterinary Microbiology, LUVAS on 12.03.2021. During this one-day program, 22 progressive farmers/ women entrepreneurs/ rural youth of Haryana, interested in animal husbandry were trained on the topic "Control and Prevention of Infectious Diseases". The participants were motivated to become innovative new start-up entrepreneurs. They were apprised of one health principle and explained its growing importance. The trainees were provided information about the control and prevention of mastitis, foot-and-mouth disease, hemorrhagic septicemia, brucellosis, trypanosomiasis and other infectious diseases in various laboratories.



**Extension education awareness program organized by the Dept. of Vety. Microbiology, LUVAS on 14.03.2021 at village Hindwan, for progressive farmers/ women entrepreneurs/ rural youth of Haryana on "Control and Prevention of Infectious Diseases".**

2. One-day extension education awareness program was organized on 14.03.2021, at village Hindwan, district Hisar, Haryana under the aegis of ICAR-Niche area of excellence project by the Department of Veterinary Microbiology, LUVAS. During this one-day program, 25 progressive farmers/ women entrepreneurs/ rural youth from the village Hindwan and other nearby villages, interested in animal husbandry were trained on the topic "Control and Prevention of Infectious Diseases". They were informed about the spread of infectious diseases, diagnosis, treatment and how to prevent them in today's pandemic perspective. They were given detailed information about the ongoing project in the department regarding the Phage Display Library, which has been created for the prevention of various infectious diseases, in which antibodies are available for the prevention of many diseases.

3. Two skill development training programs for farmers on "Milk Processing and Value addition" were organized at:

- i) village Kunjpura (Karnal) from 21.01.2021 to 25.01.2021;
- ii) at village Jhagroli (Mahendergrh) from 02.02.2021 to 06.02.2021;

**Punjab Agricultural University, Ludhiana**

## Workshop

**Workshops on Psychological First Aid**



To sensitize and equip the students with the skills to cope with stress during COVID 19, the University Counselling and Placement Guidance Cell, organized about 25 workshops on 'Psychological First Aid' (PFA). About 14 experts trained more than 2000 students of PAU during these workshops. A booklet, 'Tips and Take aways' based on these workshops was also published for distribution among the participants.

### Research and Extension Specialists Virtual workshop for horticultural crops (Winter)

The workshop was presided by Ms. Shailender Kaur, Director of Horticulture, Punjab. Dr N S Bains, Director of Research shared new recommendations of PAU for their large scale adoption in the state of Punjab. Issues related to management of citrus fruit sucking moth in *kandi* area of Hoshiarpur and sudden declining of healthy Kinnow trees in south western region of Punjab, were deliberated. The problems like: gall like symptoms in plum trees, guava wilt and nematodes needs were discussed. Effects of long-term use of sodium hypochlorite on soil and citrus plants were raised. The practices for integrated management of brinjal shoot and fruit borer and application of PAU neem based formulation for the management of aphids in potato were discussed. Management of fruit borer in chilli by providing the waiting periods for chlorantraniliprole and Spinosad was suggested. Conduct of adaptive research trials jointly by PAU and State Department of Horticulture were recommended. The immediate requirement for mechanical harvesting of peas to increase area under this crop was conferred. Performance of avocado and dragon fruit in Punjab should be evaluated.



### Research and Extension Specialists Workshop for Kharif crops on 25.2.2021

Dr Sukhdev Singh Sidhu, Director of Agriculture and Farmers Welfare, Punjab was guest of honour at this occasion. The emphasis was on crop diversification for saving irrigation water and also adopting paddy straw management technologies. The stress was laid upon crop diversification by strengthening the niche area of different crops grown on limited area. New production and protection technologies were shared. Research experiments on bed planting cotton and varieties for salt - affected soils were discussed. Demonstrations of new groundnut varieties be conducted in the niche areas of state during *kharif*/rainy season. Campaign on crop residue management and transplanting of short duration varieties and discouraging long duration varieties of paddy should be continued.



### Training

- National Training Programme "Biophysical and Socioeconomic Interactions in Agroforestry" was organized by Department of Forestry & NR and Department of Soil Science under NAHEP-CAAST project from 16.2.2021 to 8.3.2021. The content of training programme was based on the growing adoption and future scope of agroforestry in farm diversification, enhancing income and environmental amelioration. Participants from different parts of the country attended this training through virtual mode.





Trainers' training course organized on 'Menaces of Honey Bee Diseases and Enemies and Strategies for their Management and Bee Managed Pollination of Crops' for ADO, HDO, DES and Assistant Professor from 1.3.2021-5.3.2021. Thirty-seven (37) participants attended the course.

- Ten days Orientation course on Effective, Teaching, Research and Extension' organized by the Department of Extension Education and Communication Management, organized by College of Community Science on 5-15 January 2021. Forty-five newly recruited faculty members from different departments, Krishi Vigyan Kendras and Regional Research Stations of PAU attended the course.



### Farmers' Fair

- "Food Industry and Craft Mela" was organized on 29-30 January 2021 to develop link for sale of products prepared by small scale entrepreneurs trained through KVKs or SDC or other departments of the University. The list of different sellers of food and craft items was shown which had information about ingredients, pack size, price, shelf life, etc. One link was dedicated to entrepreneurs such as Individuals, Self Help Groups (SHGs) and Farmer Producer Organization (FPOs). Success stories of entrepreneurs in food and craft business was shown showcasing their products and their quality aspect with the help of KVKs.



### • Virtual Kisan Melas

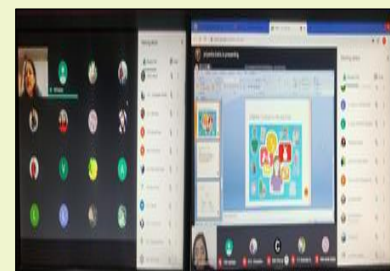
- Kisan Melas at RRS Ballawal Saunkhri (District SBS Nagar) and Nag Kalan Jahangir (District Amritsar) on 9 March 2021.
- Kisan Mela at KVK Rauni (District Patiala) on 15 March 2021.
- Kisan Mela at RRS Gurdaspur and RRS Faridkot on 18 March 2021.
- Kisan Mela at RRS Bathinda on 22 March 2021.
- Kisan Mela at PAU Campus, Ludhiana on 5-6 April 2021.



### Webinar

- Two Online webinars on mental health problems

The Department of Human Development and Family Studies, PAU, Ludhiana organized two webinars on mental health problems on 11 and 13 January 2021. The resource persons were Ms. Rachana Jain, certified Counselling Psychologist, Ludhiana and Dr Priyanka Kalra, certified Psychiatrist, Ludhiana. They discussed about how to cope up with the mental health problems. The session was very interactive, motivational and fruitful especially to students.



Virtual National Conference on Strategic Reorientation for Climate Smart Agriculture (V-AGMET 2021) on 17-19 March 2021 by Department of Climate Change and Agricultural Meteorology

## Swami Keshwanand Rajasthan Agricultural University, Bikaner

### Publication Released

Higher Education Minister, Government of Rajasthan, Shri Bhanwar Singh ji Bhati released a university publication

'कृषि पंचांग 2021' on January 8, 2021. He

appreciated the efforts made in the printing of panchang. Month-wise details related to agriculture have been printed in Hindi for the benefit of farmers. Vice-Chancellor presented the 'कृषि पंचांग 2021' to the Governor of Rajasthan, Minister of Agriculture, GoR and to various other dignitaries.



Shri Bhanwar Singh ji Bhati, Hon'ble Higher Education Minister, GoR with Hon'ble Vice-Chancellor and OSD to HVC, Er. Vipin Laddha releasing the 'कृषि पंचांग 2021' on Jan. 8, 2021

### Online Debate Organized

An online debate competition was organized by Nyara and Mahaveer International, Udaipur for the youths from 27-30 December 2020 on the theme

'Smartphone का उपयोग कृषि में'. 127 students participated from the



Prof. R.P. Singh, Hon'ble Vice-Chancellor being presented the Certificate from the India Book of Records by the Dean, College of Home Science on January 23, 2021.

university. Majority of them were from College of Home Science (107) and they debated on the given topic continuously for more than 24 hours. This achievement of the students was acknowledged by India Book of Records in the form of a Certificate, delivered to Prof. R.P. Singh, Vice-Chancellor on 23 January 2021 by the Dean, College of Home Science.

## Sher-e-Kashmir University of Agricultural and Sciences and Technology, Jammu

### Workshop

- Division of Food Science and Technology organized Academia -Industry and Progressive Farmers meet on 18 March 2021 during Kisan Mela 2021 wherein industries from food processing sector, rice mills, and animal feed and progressive farmers participated. Participants were apprised of the various technologies generated by the University on food processing, meat and milk processing, cattle feed, Basmati varieties.

### Training

#### Following trainings organized

- 'Approaches in Diagnosis of microbial diseases', held on 18-24 January 2021 for 7 days by Department of Animal Husbandry, Government of UT of J&K at F.V.Sc. & A.H., R.S. Pura, Jammu with 10 participants.
- 'Importance of heat and cold stress in dairy animals and strategies for ameliorations' held on 25 January, for 01 day by DST-SERB at KVK, Jammu with 20 participants.
- Diagnosis of Animal Diseases through Molecular Tools, held on 01-10 February 2021 for 10 days by Department of Sheep Husbandry, Govt. of UT of J&K at F.V.Sc. & A.H., R.S. Pura, Jammu with 31 participants.

- 'Advances in the Management of Common Livestock Diseases in Dairy Animals' held on 01-09 February 2021, for 9 days by Department of Animal Husbandry, Government of UT of J&K, Under CSS National Livestock Mission-NLM at F.V.Sc. & A.H., R.S. Pura, Jammu with 11 participants.
- 'Clean Milk Production and Hands-on Training for Value Added Milk Products held on 11 - 12 February 2021 for 2 days by DBT, MoST, GoI at F.V.Sc. & A.H., R.S. Pura, Jammu with 21 participants.

**In addition to the above, some of the trainings are also given below.**

- Three days skill development programme was organized by CIPHET Ludhiana in collaboration with KVK Jammu w.e.f 2 to 4 Feb 2021 on processing of fish under SC-SP Programme.
- 200 hours ASCI training on aquaculture worker at KVK Jammu w.e.f 5.3.2021 to 30.3.2021.
- 200 hours ASCI training on Group Farming Practitioner & Mushroom Grower at KVK Kathua in March 2021.
- 200 hours ASCI training on Mushroom Grower & Small Poultry Farmer at KVK Rajouri in March 2021.
- 200 hours ASCI training on Nursery Worker at KVK Reasi in March 2021.
- 200 hours ASCI training on Medicinal Plant Cultivator at KVK Samba in March 2021.
- Training programme organized by Division of Food Science & Technology at RRSS Raya on 29 January 2021 on "Processing of aonla" for farm women.
- Training programme conducted at Division of Food Science & Technology, SKUAST-J, Chatha on 4 February 2021 on "Processing of mushroom and carrot" for ICDS workers.
- Training programme conducted at Division of Food Science & Technology, SKUAST-J,

Chatha on 10 February 2021 on "Processing of Tomato" for ICDS workers.

- Training programme was organized by Division of Food Science and Technology at KVK, R.S Pura Jammu on "Grading and marketing of fruits" on 25 Feb 2021 for officers of Department of Horticulture Planning and Marketing, J&K Government.

### **Farmers' Fair**

- Five-day State level Kisan Mela (both in physical and virtual mode) was organized on the theme "Self-Sufficient Agriculture – Self-Reliant India" w.e.f. 16 to 20 March 2021. The major events include awareness on agricultural education for 10+2 students, Livestock and Dog show, presentations by Innovative farmers, Industry Meet, Medicinal Plant meet, Vegetables, Fruits and Flowers show, etc.
- Two-day Innovative Farmers' Conference 2021 was organized on 23-24 February 2021 in which five Padma Shree and 11 national reputed farmers' along with 100 farmers of J&K region participated in the Conference and share innovations and success in agriculture.

### **Tamil Nadu Agricultural University, Coimbatore**

#### **Annual Conference of Indian Society of Agricultural Economics**

Centre for Agricultural and Rural Development Studies (CARDS), TNAU,

Coimbatore organized the 80<sup>th</sup> Annual Conference of the Indian Society of Agricultural Economics (ISAE) during 10-12 February





2021. Dr K. R. Ashok, Director, CARDS and the organising secretary of the Conference welcomed the dignitaries. Dr N. Kumar, Vice-Chancellor, TNAU in his inaugural address exhorted the society to increase the NAAS rating for the Indian Journal of Agricultural Economics published by the Society. Dr G. R. Chintala, Chairman, NABARD delivered the Chief Guest Address. Prof. Vasant P. Gandhi, Former Chairman, Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad delivered the Presidential note. Professor Abhijit Sen, the President of ISAE and Dr C. L. Dadhich, Honorary Secretary of the Society felicitated. Dr D. Suresh Kumar, Professor and Head, Department of Agricultural Economics proposed vote of thanks.

### **Webinar on 'Combination pesticide formulations in India'**

A Webinar session on 'Challenges and future for combination/premix pesticide formulations in India' was conducted through online on 24.02.2021 by the Department of Agricultural Entomology, Centre for Plant Protection Studies (CPPS),



TNAU, Coimbatore. Dr N. Sathiah, Professor and Head, Department of Agricultural Entomology, welcomed the gathering. Dr N. Kumar, Vice-Chancellor presided over the inaugural session and highlighted the need for sustainable pest management. Dr N. Subbaiyan, Director of Horticulture and Plantation Crops, in his special address complimented the efforts of TNAU in taking forward the technologies. The inaugural address of Th. V. Dakshinamoorthy, Director of Agriculture was read out on the occasion by the Additional Director of Agriculture. Dr K. K. Sharma, Project Coordinator, ICAR – AICRP on Pesticide Residues, IARI, New Delhi; Dr R. J.

Rabindra, Former Director, NBAIL, Bengaluru and Project Consultant- GoTN- Fall Armyworm; Dr S. Uthamasamy, Former Director of Extension Education, TNAU deliberated. Dr K. S. Subramanian, Director of Research and Dr K. Prabakar, Director, CPPS addressed the gathering.

### **National webinar on 'Advances in Renewable Energy Engineering'**

A National webinar on 'Advances and Future Outlook in Renewable Energy Engineering' was organized by the Department of Renewable Energy Engineering, AEC&RI, Coimbatore under ICAR - NAHEP - IDP Programme on 24.02.2021. Dr P. Subramanian, Professor and Head welcomed the gathering. Dr B. Shridar, Dean, AEC&RI delivered the inaugural address. Dr S. D. Sivakumar, Director of Agri Business Management, TNAU was felicitated. The training programme was scheduled with lectures by Dr K. C. Pandey, CIAE, Bhopal; Dr V. Jothiprakash, IIT, Mumbai; Dr Atul G. Mohod, Dr Balasaheb Sawant Konkan Krishi Vidyapeeth, Rathinagiri, Maharashtra; Dr Sandip Gangil, CIAE, Bhopal and by Er. B. Srikrishna, United Nations Development Programme, India. A total of 295 students and staff from various agricultural universities across the country participated and benefitted.

### **International Conference on Bio-pesticides**

Department of Plant Pathology, CPPS, TNAU, Coimbatore organized an International Conference on 'Industrial perspective, challenges and strategies in the development of novel bio-pesticides: Its implication in sustainable pest and disease management' during 11-12 March 2021, sponsored by Shastri Indo-Canadian Institute (SICI), New Delhi. Dr N. Kumar, Vice-



Chancellor, inaugurated the Conference; Dr A. S. Krishnamoorthy, Registrar, TNAU felicitated and Dr Prachi Kaul, Director, Shastri Indo-Canadian Institute, New Delhi was the Guest Speaker. Several International speakers *viz.*, Dr B. Prithiviraj, Dr Davide Spadaro, Dr W. G. Dilantha Fernando, Dr D. Saravana Kumar, Dr Sambasivam Periyannan, Dr Saveetha Kandasamy besides speakers from India comprising SAUs and ICAR institutes delivered the lead lectures on the biological control in the conference.

### **Sensitization Seminar on Agro-Biodiversity**

Centre for Plant Molecular Biology and Biotechnology (CPMB&B) organized a sensitization seminar on 'Collection, Characterization and Conservation of India's Agro-Biodiversity' for the students under ICAR-NAHEP- IDP funds. Dr

Kuldeep Singh, Director, ICAR – NBPGR, New Delhi

deliberated on the above topic on 23.03.2021. Dr S. Mohan Kumar, Director, CPMB&B welcomed the online and offline participants. In his Presidential address, Dr N. Kumar, Vice-Chancellor, TNAU narrated TNAU's initiatives in developing bio-heritage site harbouring several novel and rare species, ecotypes and landraces of agricultural and horticultural crops. Students (205) from various degree programs of TNAU attended the seminar.



### **University of Agricultural Sciences, Dharwad**

#### **Organic Farming Training to Rural Youth at UAS, Dharwad**

Dr M.N. Srinivas, Professor and Head, Organic Farming Institute, UAS, Dharwad inaugurated six-day training programme on organic

farming, organized jointly by SAMETI (North), Directorate of Extension, UAS, Dharwad and Skill Training for Rural Youth of MANAG, Hyderabad on 1 March 2021. He outlined the development of Organic Farming in India, and also opined that organic products are having good market and

highlighted the activities of Organic Farming Institute and progress achieved by the institute



**Director of Extension Dr. Ramesh babu inaugurating Organic farming training to rural youth at UAS, Dharwad**

towards achieving self-sufficiency. Director of Extension and President of the function Dr Ramesh Babu stressed the importance of Organic Farming, role of natural resources in organic farming, importance of organic carbon and urged the youth to acquire skills in organic farming. He also explained the activities undertaken by UAS, Dharwad to promote organic farming. Professor and State Nodal Officer, DAESI, Dr M. Gopala spoke about Skill Training for Rural Youth of MANAGE, Hyderabad. Fifteen rural youths of different talukas of Dharwad district participated in the programme. Experts in different dimensions in Organic Farming delivered lecture and field visit were also arranged.

### **National Summit on Education, Entrepreneurship and Excellence**

In 70 years after Independence, India achieved food security but failed to achieve social peace, expressed Shri H. H. Adrushya Kadsiddheshwar Swamiji, Spiritual Leader and a sole trustee of Shri Kshetra Siddhigiri Math and Siddhagiri Gurukul Foundation (SGF), Kaneri, Kolhapur, Maharashtra with lot of concern. He inaugurated the "National Summit on Education, Entrepreneurship and Excellence" organized at UAS, Dharwad by National Agricultural Higher Education Project

– Institutional Development Programme (NAHEP-IDP) on 19.03.2021. Although, more than 60% of the population is still engaged in agriculture directly or indirectly, number of agriculture colleges is less compared to Medical and Engineering colleges. Agriculture and allied sectors which were contributing nearly 40-45% to the GDP has come down to 6-8% because of the least importance given to rural artisans. Swamiji also outlined the activities undertaken by the Shri Kshetra Siddhigiri Math and Siddhagiri Gurukul Foundation (SGF), Kaneri. Further, Swamiji also quoted number of examples across the country about agriculture graduates who have excelled in agripreneurship. He urged students to become assets and not liabilities to the parents, society and nation.



Shri. H. H. Adrushya Kadsiddheshwar Swamiji, Kaneri, Kolhapur, Maharashtra inaugurated the National Summit on Education, Entrepreneurship and Excellence. Vice Chancellor, Dr. Mahadev B. Chetti and other dignitaries are present.

“The agriculture graduates should aim to become industry ready and employable; then only they can get suitable jobs”, urged Vice-Chancellor of Rani Lakshmi Bai Central Agricultural University, Jhansi (Uttar Pradesh) Dr Arvind Kumar in his chief guest address. Vice-Chancellor and President of the function Dr Mahadev B. Chetti urged the students to make use of the summit and requested them to become entrepreneurs, and University is ready to extend all the support in their endeavor. Former Vice Chancellor, SKUAST-Kashmir, Dr Nazeer Ahmed; Former DDG Horticulture ICAR, New Delhi, Dr N. K. Krishna Kumar, and

Vice-Chancellor, Kerala Agricultural University, Thrissur; Dr R. Chandrababu, ADG (EQA &R), ICAR, New Delhi; Dr G. Venkateshwarulu; Chairman and Managing Director, Indo-American Hybrid seeds (India), Pvt. Ltd, Bengaluru, Mr. Arthur Santosh Attavar; Progressive farmer, Sikkar, Rajasthan, Khan Singh Nirvan spoke on different topics during the National Summit. Members Board of Management, Sri Shashimouli Kulkarni, Shri Yallanagouda N. Patil, Shri Mallesh P., Shri L.S. Ajagannavar and Former Dharwad MLA Sri Chandrakanth Bellad, were present on the occasion.

Dr P. U. Krishnaraj, Co-Ordinator, NAHEP-IDP, Professor and Head welcomed the guest and Dr B. N. Aravind Kumar, Professor of Agronomy and Nodal Officer, IDP proposed vote of thanks. Officers of the University and students of all constituent colleges of UAS, Dharwad also participated in the programme in large number.

## DIVERSIFORM ACHIEVEMENTS

**Chaudhary Charan Singh Haryana  
Agricultural University, Hisar**

### Research

#### Organic Farming Promotion

CCS HAU, Hisar is a unique university in North India where an excellent center has been established to promote organic farming. These views were expressed by Dr A.K. Singh, DDG (Agric. Ext.), ICAR. He was meeting the University scientists after visiting the University's Pandit Deen Dayal Upadhyay Center for Organic Farms (DDUCE-OF). He said that the



DDG (Ext. Edu.), ICAR and CCS HAU VC visiting DDUCEOF along with other officials of the University



state and central governments are also doing their best to promote organic farming. Therefore, the scientists of the university should make farmers aware of promoting organic farming through its Krishi Vigyan Kendras. Vice-Chancellor of the University informed that this centre was established in 2017, which is spread over about 150 acre and includes horticultural, vegetables as well as other crops grown organically.

### **CCS HAU will now provide grafted vegetables to farmers**

CCS HAU will now make available the plants of vegetables prepared by the

grafted technique to the farmers soon. For this, the University Vice-Chancellor laid the foundation stone of the



University VC laying the foundation stone of the Vegetable Grafting Unit

Vegetable Grafting Unit at Research Farm of Department of Vegetable Sciences. Addressing the scientists on the occasion, he said that it will also help in relieving soil-borne diseases and nematode problem without the use of chemicals. He said that this unit will be set up under the Rashtriya Krishi Vikas Yojna-Gati Project with an amount of Rs 175 lakh.

### **Academic**

#### **CCS HAU students selected for master's degree in Australia and Switzerland**

Two students of CCS HAU, Hisar, have been selected for degrees in Australia and Switzerland in a two-year PG program. Ms Nishaputri Deshraj were selected in a post-graduate degree program and will complete her degree at



University VC along with students and other officials

Southern Queensland University in Toowamba, Australia while Aman Karwasra has been selected in the post-graduate programme in agriculture at ETH, Zurich (Switzerland), the world's fifth-ranked university. University Vice-Chancellor congratulated both the students and wished them a bright future.

### **Campus placement of six students of CCS HAU, selected in IDBI Bank**

In a Campus Placement Drive organized by the placement cell of Directorate of Students' Welfare, CCS HAU, Hisar in March` 2021, six students of Agricultural College were selected in IDBI Bank.



University VC and others with selected students

In addition to this, two final year students of College of Agriculture were also earlier selected by J.U. Agri. Sciences Pvt. Ltd., New Delhi. Vice-Chancellor of the University congratulated the selected students and wished them a bright future. The Associate Director (SC&P) said that this cell is constantly in touch with the private companies and banks during COVID-19 for getting students recruited with good packages.

### **Extension**

#### **CCS HAU's Krishi Vigyan Kendra, Sadalpur conducted bio-fertilizer awareness program**

CCS HAU Krishi Vigyan Kendra, Sadalpur organized a bio-fertilizer awareness

program in village Sahu of Hisar District. The program was organized under the aegis of



Scientists and farmers during awareness programme

National Fertilizer Limited (NFL). Addressing the farmers, the Senior Coordinator of the center said that there is a need for change in

farming and farmers will have to adopt crop diversification and crop cycle. The inclusion of horticulture, vegetable production, organic farming and animal husbandry along with crop production will increase the income of farmers. On this event, Regional Manager of NFL appealed to the farmers to add only the amount of fertilizers recommended by scientists to their crops. More than hundred farmers participated in this awareness program.

### **Ch. Sarwan Kumar H.P Krishi Vishwavidyalaya, Palampur**

#### **Research**

Nine new research projects amounting 146.06 lakh were sanctioned from different funding agencies.

#### **Academic**

IDBI Bank has selected Medini Raj, Ayushi Sharma, Bhanu Sharma, Gunjan Kondal and Nitin Chandel, all students of CSK H.P. Agricultural University, as Assistant Managers through a rigorous selection process as 34 students participated in the selection process. Prof. H. K. Chaudhary, Vice-Chancellor congratulated the selected students, their parents and teachers.

#### **Extension**

On 18 February 2021, CSK Himachal Pradesh Agricultural University started a new tradition in its 42 years history by organizing a Scientific Advisory

Committee (SAC) meeting in a village amidst farmers. True to his words, Prof H.K. Chaudhary, Vice-Chancellor sat on the ground to chair SAC of Krishi Vigyan Kendra (KVK), Berthin (Bilaspur) at Fagog village in the Jandhuta block in the house of progressive farmer Bharat Bhushan. He said that scientists can come



close to the hearts of farmers by reaching out to them on their farms.

Similarly, to commemorate the Golden Jubilee of H.P. Statehood, CSK Himachal Pradesh Agricultural University organized a Farmer-Scientist interaction at village Manjhrot, near Sundarnagar in Mandi district on 20 February 2021.



While addressing the farmers, officers and scientists, Chief Guest Shri Vinod Kumar, MLA, Nachan, while

appreciating the new approach of the University to reach farmers



in the village, asked the University to solve the farm related problems on priority so that farmers may increase their income.

Another, Scientific Advisory Committee (SAC) meeting of Krishi Vigyan Kendra (KVK), Bajaura, was held at Mohal near Kullu, held on 22 February 2021.

CSK Himachal Pradesh Agricultural University also organized another Scientific Advisory Committee (SAC) meeting at village Nagari in Kangra district, on 14 March 2021.

While addressing the farmers, officers and scientists, Chief Guest Shri Trilok Kapoor, Chairman, H.P. Wool Federation, while appreciated the new approach of the University to reach farmers in the village and suggested the University to solve the farm related





problems on priority to help farmers increase their income. He distributed certificates to progressive farmers and farm inputs to farm families.

CSK Himachal Pradesh Agricultural University organized a Farmer-Scientist interaction at village Hatehpur, in Una district on 22 March 2021. While addressing the farmers, officers and scientists, Chief Guest- Rural Development, Panchayati Raj, Agriculture, Animal



Husbandry, Fisheries Minister Shri Viender Kanwar appreciated the new approach of the University to reach farmers in the village. He also distributed certificates to progressive farmers of the area. Sh. Satpal Satti, Chairman, State Finance Commission also detailed about the Government Schemes being run by Centre and State Government in the interest of farming community.

Similarly, the university organized Scientific Advisory Committee meetings amidst farmers as Krishi Vigyan Kendra, Dhaula kuan (Sirmour) held its programme in Kanshipur village on 24 March 2021 and KVK, Bara (Hamirpur) on 18 March 2021.



## Dr Y.S.R. Horticultural University, Venkataramannagudem

### Academic

#### Fourth Convocation of Dr YSRHU

The 4<sup>th</sup> Convocation of Dr Y.S.R Horticultural University was held on 22 February 2021 at University Head Quarters, Venkataramannagudem. Dr T Janakiram, Vice-Chancellor conducted the convocation

proceedings and presented a report on the progress made in the university with regard to Education, Research and Extension. Dr Trilochan Mohapatra, Secretary, DARE and Director

General, ICAR, New Delhi, attended the function virtually as chief guest and delivered his message in the presence of Dr T. Janakiram, Vice-Chancellor, Members of the Board of Management, Academic Council and University officers. In this convocation 521 B.Sc (Hons.) Horticulture, 92 M.Sc (Horticulture) and 22 Ph.D students were awarded with degrees.



Fourth Convention of Dr. YSRHU

### Alumni Meeting

The University Level Alumni meeting was organized on 20 February 2021 at examination hall, CoH, VR Gudem to discuss about alumni association, membership and activities. Dr T. Janakiram, Vice-Chancellor attended as chief guest and all the university officers have participate in the programme. Dr A. Sujatha, Dean of Student Affairs and Dean of PG studies coordinated the programme.



University Level Alumni meeting

## Guru Angad Dev Veterinary and Animal Science University, Ludhiana

### Research

#### Yeoman Service by Covid Testing Laboratory

GADVASU has contributed significantly by testing more than 2.5 lakh samples at its COVID Testing Laboratory. Dr J.P.S. Gill, Director Research and Nodal Officer of COVID



Laboratory shared that the Corona Warriors of the University are working continuously in three shifts and in this hour of crisis more than 1500 samples are being tested daily.

Dr Inderjeet Singh, Vice-Chancellor commended the entire Covid



Laboratory team for this meticulous achievement. He expressed his gratitude to the Chief Minister of Punjab, Capt. Amarinder Singh for showing such a confidence in the University by opening COVID Laboratory under 'Mission Fateh' of the state. Dr Singh also acknowledged the support and cooperation extended by Sh. Varinder Kumar Sharma, IAS, Deputy Commissioner, Ludhiana and Dr R.K. Bagga, Ex-Civil Surgeon, Ludhiana.

### University bags 'Fisheries Development Project'

College of Fisheries, GADVASU received fisheries development project with 100% Central Government support under Pradhan Mantri Matsya Sampada Yojana (PMMSY) launched by Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. The project aims to harness the production potentials of marine and inland aquatic resources. Under this project, the college will develop a 'Capacity Building Resource Centre' with a total budget of Rs 183.85 lakh, for promoting low volume intensive aquaculture technologies, viz. re-circulatory aquaculture system (RAS) and biofloc aquaculture in the region through an integrated research, adopting demonstration-cum-skill development module. Further, the facility will cater the much sought-after training needs to set up intensive aquaculture systems in Punjab and its neighboring states.

### GADVASU Scientist Leads the Central team for Investigation of Avian Influenza Outbreak

Dr J.S. Bedi, Director, Centre for One Health has been assigned to lead the Central team of three members for monitoring and epidemiological investigation in the epicenters of Avian Influenza Outbreak of 2021, constituted by Ministry of Fisheries, Animal Husbandry and Dairying, Department of Animal Husbandry and Dairying, Government of India.

### Laying of Foundation Stone of GADVASU's Multi-Specialty Veterinary Hospital and Regional Research-cum-Training Centre, Fazilka

Sh. Sunil Kumar Jakhar, President, Punjab Pradesh Congress Committee, S. Manpreet Singh Badal,

Finance Minister, Punjab and Sh. Vijay Inder Singla, Minister Public Works Department and Education,



Punjab laid the foundation stone of Multi-Specialty Veterinary Hospital and Regional Research-cum-Training Centre (MSVH & RRTC) at Village Sappanwali (Fazilka).

Dr Inderjeet Singh, Vice-Chancellor, GADVASU informed that the University has taken an initiative to extend the specialized veterinary services through establishment of MSVH & RRTC at different locations of the State, first being at Village Sappanwali, Fazilka. Spread on a land area of 25 acres, having a budgetary estimate of Rs 62.14 crore, the centre's dedicated Veterinary Hospital will be equipped with the state-of-the-art facilities for promotion of area specific need based research. This will also be pivotal in imparting trainings to the farmers for rearing livestock in scientific manner for their economic upliftment through integrated farming.

## Junagadh Agricultural University, Junagadh

### Academic

#### Virtual Sixteenth Annual Convocation of JAU

Junagadh Agricultural University celebrated first virtual (online) 16<sup>th</sup> Annual Convocation on 06 February 2021 in auspicious presence



Chief Guest Addressing the Gathering

(virtual) of Governor of Gujarat and Chancellor of University, Shri Acharya Devvratji. Shri Rajnikant Shroff,



Student receiving Gold Medal

Chairman and Managing Director, UPL, Mumbai, remained present physically as Chief Guest and Dr T. Radhakrishnan, Director (Retired), Directorate of Groundnut Research, ICAR, Junagadh as Guest of Honour. The convocation program started with welcome address of Dr V. P. Chovatia, Vice Chancellor of JAU. A total 69 Gold Medals/Gold Plated Silver Medals were awarded.

## Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar

### Research

Regional Research Centre on FMD, Department of Veterinary Microbiology, LUVAS, Hisar has been participating actively in implementation of FMD+HS combined vaccine programme initiated by DAHD, Government of Haryana since 2019, by providing logistic support in the

form of surveillance and sero-monitoring work in all the 22 districts of Haryana. The tests being conducted at this Centre and the data thus generated provided logistic support that sufficient protection at herd level has been generated despite the fact that the disease is present in the neighboring states. As a result, no incidence of FMD and HS in Haryana has been reported since the start of FMD+HS combined vaccination till March 2021.

### Extension

During the reported period, the Scientists and teachers of University participated in virtual online Kisan Mela organized by CCS HAU and LUVAS, Hisar from 9-10 March 2021. The livestock owners and farmers were apprised about – the nutritional supplements, prevention and control of diseases, importance of foot-and mouth disease + hemorrhagic septicemia combined vaccination in Haryana (first State in the country which is given permission for combined vaccination) initiated by DAHD, Government of Haryana, and do's and don'ts in case of FMD/HS outbreaks through informative videos and posters.

## Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior

### Research

Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior has been nominated as State Level Technical Institute by Ministry of Food Processing Industries (MoFPI), Government of India for Centrally Sponsored PM-FME Scheme under *Atmanirbhar Bharat Abhiyan*. The Scheme adopts One District One Product (ODODP) approach to reap benefit of scale in terms of procurement of inputs, availing common services and marketing of products and also place focus on waste to wealth products, minor forest products and Aspirational Districts. Total 11 Master trainers have been trained till now (9 by Indian Institute of Food Processing Technology, Thanjavur,

Tamil Nadu under Fruit and Vegetable Processing based ODOP domain, and 2 by National Institute of Food Technology Entrepreneurship and Management, Sonapat, Haryana) under Entrepreneur Development Program –Domain. Presently, these master trainers are imparting ODOP based trainings to district level trainers in virtual mode covering custard apple, mustard, turmeric, coriander, garlic, lime, potato, onion, banana, orange, green chili, ginger, mango, aonla, guava, tomato, green pea, kodo kutki, minor forest produce, spices and plantation crops and grain processing based ODOP assigned to different districts of Madhya Pradesh.

### Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu

#### Academic

- Two PhD students of Division of Food Science and Technology are receiving CSIR fellowship
- Four PhD students of Division of Food Science and Technology are receiving ICMR fellowship
- Division of Vegetable Science and Floriculture developed Course curriculum for Doctorate programme in Floriculture
- “Robust Model for the Quadratic Production function in presence of High leverage Points”, was published in *International Journal of Scientific Research in Mathematical and Statistical Sciences*
- “Optimum Exponential Ratio Type Estimators for Estimating the population Mean”, was published in *Journal of Statistics Applications and Probability Letters*.

#### Extension

- **Strengthening of market led extension** through promotion of packaging, branding and provision of sale outlets for niche

products of Jammu region namely; Milk cake, turmeric, pickles, etc.

- **VC to Village Programme** has been launched by the directorate to reach out to the farmers of remote villages in different districts of Jammu region. The programme has been devised to bring together University scientists and extension officers of State Agriculture and allied departments, including Horticulture, Fisheries, Animal Husbandry, Floriculture, Sericulture etc., at farmers’ doorstep for exchange of new ideas and transfer of technologies through exhibitions. The programme has a multifarious impact with on-the-spot solution of farmers’ queries related to different aspects of agriculture and allied enterprises by scientists and representatives of departments.
- **Village Visit and Revisit Programme** has been launched to enhance regular interactions of scientists with farmers. A multidisciplinary team of scientists of the University visit a selected village every week and provide information to the farmers on technical and other related aspects of agriculture and allied enterprises. Being the resource persons for a particular village, the scientists are expected to monitor the process of adoption of agricultural technologies by farmers. This helps in identification of problems at village level for framing need-based prospective research programmes of the University.
- A **participatory seed production programme** has been implemented in three districts of Jammu region (Jammu, Samba and Kathua). This is a collaborative programme of Mega Seed Project of SKUAST-Jammu with different Krishi Vigyan Kendras under the administrative control of SKUAST-Jammu. The farmers are encouraged to initiate seed production of cereals for enhancing their farm income.



The facility available with Mega Seed Project, SKUAST-Jammu shall be provided to the farmers for processing of seed produced under the programme.

- Clinical Camp was organized at Hasan Wan Jammu with collaboration of KVK, Jammu on 19 January 2021; and animals were treated.
- Clinical Camp was organized at Krlan, R. S. Pura on 9 March 2021. A total of 65 farmers participated and the animals were treated.

### **Tamil Nadu Agricultural University, Coimbatore**

#### **ODL Graduation and Award Ceremony**

The ODL Graduation and Award Ceremony was organized on 22.01.2021. The programme was presided

over by Dr N. Kumar, Vice-Chancellor. Dr P. Rethinam, former ADG (ICAR) and



Executive Director, Asia Pacific Coconut Community was the chief guest and Rtn. N. Janikiram Raju, BASF, Bangladesh was the guest of Honour. Dr M. Ananthan, Director (ODL) welcomed the gathering. Dr A.S. Krishnamoorthy, Registrar and Dr Sooriyanathasundaram, Controller of Examinations, TNAU; Mr M. Mohan, State President, Tamil Nadu Agro Input Dealers Association and Mr M. Sathiyamoorthy, State Secretary felicitated the programme. All the University Officers, Heads of Departments and Faculty in TNAU main campus attended the programme.

Deans/Directors/Project Coordinators from various ODL centres also attended the programme along with the centre coordinators. During the programme, 260 Diploma in Agri Inputs candidates received their certificates. Forty M. Farm Tech and 22

M. Farm Science candidates received their degree certificates. Awards were given to all the first and second rank holders from each ODL centres.

## **AWARDS**

### **Chaudhary Charan Singh Haryana Agricultural University, Hisar**

#### **CCS HAU professor selected on the expert panel of the world meteorological organization**

CCS HAU Principal Scientist and former Prof. & Head, Department of Agricultural Meteorology, Dr Surendra Singh Dhankhar has been selected as an expert member in the Standing Committee on New Reform Commission based Agriculture of World



**Prof. Surender Singh Dhankhar**

Meteorological Organization based in Switzerland (Geneva). His name was approved by the Ministry of Earth Sciences, Government of India, for selection in this commission. Dr Surendra Singh Dhankhar is the only Agricultural Meteorologist from Agricultural Universities across the country who has been selected in this commission.

#### **Scientists of CCSHAU Honored with Dr A.P.J. Abdul Kalam Award 2020**



**Drs. Rashmi Tyagi and Jatesh Kathpalia**

Two scientists of CCS HAU, Hisar have been awarded Dr A.P.J. Abdul Kalam Award 2020.

The Dean, College of Basic Sciences & Humanities said that this award was given at the 11 International Conference on Agriculture, Horticulture and Plant Sciences held in New Delhi. He informed that Drs. Rashmi Tyagi and Jatesh Kathpalia of Sociology Department, COBS&H, have been given this honor on behalf of the Society of Tropical Agriculture by presenting their papers in the conference.

### Honour for Agri. Varsity Scientists



Drs Kushal Raj and



Rakesh Kumar Chugh

Department of Plant Pathology, CCS HAU, excelled in the national e-conference on plant health and food security-challenges and opportunities, organized by the Indian Phytopathological Society, as Dr Kushal Raj was appointed the President of the society and Dr Rakesh Kumar Chugh the Councilor during the general body meeting. Dr Raj and Dr Chugh maintained passion to conduct farmer-oriented research and have received various awards.

### CCSHAU's forestry department scientist honored with junior scientist award

Dr Pawan Kumar Poonia, Assistant Scientist of the Forestry Department, CCS HAU has been awarded the Junior Scientist Award-2020 on 9 Feb 2021. Dr Pawan received this award in a two-day national conference on "Techno Scientific Challenge and Sustainable Solution for Living being during the Changing Environment", held at New Delhi, which was organized in collaboration with National Academy of Environmental Sciences (NAES) and Indian Agricultural Statistics Research

Institute (ICAR-IASRI). The award was given by Dr R.C. Aggarwal, Deputy Director General (Agricultural Education), Indian Council of Agricultural Research, New Delhi.

### Governor awarded to CCS HAU student-gift of citation and cash

CCS HAU Volunteer Ankit Yadav has been honored by the State Governor Shri Satyadev Narayan Arya at Raj Bhavan in Haryana. Mr. Ankit Yadav had represented the University and Haryana State in the 26



Governor Shri Satyadev Narayan Arya honoring student Ankit Yadav

January parade held at Rajpath in New Delhi. On his achievement, the Governor honored him with a cash prize of Rs 21,000 besides a citation and a memento.

### Dr Y.S.R. Horticultural University, Venkataramannagudem

- Dr B.K.M Lakshmi, Senior Scientist (PP) and Head, MRS, Nuzvid has received Best oral presentation award in virtual Symposium on 'IPS-Central Zone, Plant protection advisory cell', Dr Y.S.R.H.U, V.R. Gudem and Indian Phytopathological Society, New Delhi on 07.01.2021.
- Dr B.K.M Lakshmi, Senior Scientist (PP) and Head, MRS, Nuzvid has received "Excellence in Research" award by DDG (Agril. Edu.), ICAR honoring Dr. Pawan Kumar Poonia Foundation, Meerut.



DDG (Agril. Edu.), ICAR honoring Dr. Pawan Kumar Poonia

- Dr YSR Horticultural University received “Excellence in Skill Development Award - 2021” from Agriculture Today Group during Agri Education Awards-2021 on 28 February 2021.
- Dr M. Ramaiah, Professor (Entomology), CoH, Anantharajupeta has got International Educational Excellence Award as a recognition for the pioneering superior performance in Insect Taxonomy.
- Dr N.B.V. Chalapathi Rao, Principal Scientist (Ent.) was awarded with “**Dr. B. S. Bhumannavar Team Research Award**” in the Sixth National Conference on Biological Control held from 3 to 5 March 2021 from ICAR-National Bureau of Agricultural Insect Resources (ICAR-NBAIR), Bengaluru.
- Dr N.B.V. Chalapathi Rao, Principal Scientist (Ent.) received “**Best Research Paper Award**” from ICAR-National Bureau of Agricultural Insect Resources (ICAR-NBAIR), Bengaluru for the paper “Effect of Bio Pesticides on Mango Hopper *Idioscopus spp* under field conditions in Andhra Pradesh”.
- Dr B.K.M. Lakshmi, Senior Scientist (PP) & Head, MRS, Nuzvid, received “AP Science Academy associate fellow award” by AP Science Academy at Vijayawada on 23.03.2021.
- Dr K. Sireesha, Senior scientist (Ento), HRS, Lam received best oral presentation award in National Web conference on “Strategies for buffering ecosystems for sustainable services in the era of Intensive agriculture and climate change” on 25.03 2021 organized by Agricultural College, Rajamahendravaram.

### **Guru Angad Dev Veterinary and Animal Science University, Ludhiana**

#### **Dr Y.P.S. Malik Honoured with National Fellowship**

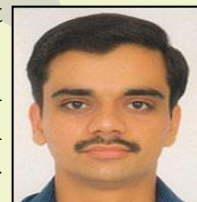
Dr Yashpal Singh Malik, Dean, College of Animal Biotechnology was bestowed with the

prestigious ‘Fellow Award’ of the Biotech Research Society, India (BRSI) for his contributions and achievements in the field of Animal Biotechnology. His contribution on zoonotic pathogens affecting both humans and animals was adjudged for this prestigious award. Dr Malik is leading the team of experts at GADVASU in the area of animal genomics, molecular diagnostics and vaccinology for facilitating the livestock sector.



#### **Dairy Microbiologist got Associateship of National Academy of Dairy Sciences**

Dr Harsh Panwar, Assistant Professor (Dairy Microbiology) has been conferred Associateship of National Academy of Dairy Sciences - India for 2021.



#### **Inspiring Lady Veterinarian Award**

Dr Simarjeet Kaur has been bestowed with Inspiring Lady Veterinarian Award 2021 by Pashudhan Praharee on the occasion of International Women's Day 2021.



#### **Fisheries Scientists brought laurels**

Fisheries scientists brought laurels during the 4<sup>th</sup> International Conference on “Current Approaches in Agricultural, Animal Husbandry and Allied Sciences for Successful Entrepreneurship (CIAAAH ASSE-2021)” organized by the Agro Environmental Development Society (AEDS), in collaboration with Centre for Agribusiness Incubation and Entrepreneurship, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior, Madhya Pradesh, India.



- Dr Amit Mandal was conferred with 'Young Scientist Award in Fisheries Science' for his presentation on 'Comparative dosage evaluation of castor bean (*Ricinus communis*) seed as fish toxicants for tilapia (*Oreochromis mossambicus*) and its residual toxicity effect on Amur carp (*Cyprinus carpio haematopterus*)'.



- Dr Sachin Onkar Kharnar bagged 'Best Fisheries Scientist Award-2021' for paper presented under the theme 'Ornamental Fisheries: An approach towards livelihood generation'.



- Dr Kritima Kapoor, College of Veterinary Science, Rampura Phul got first prize for poster presentation on emerging aspects of livestock sector with its integration with other sectors in e-canvas theme 'Strategies for doubling farmers' Income'.



### **GADVASU Scientists appointed as Master Trainers under PMFME**

- Dr Om Prakash Malav and Dr Rajesh V. Wagh have been nominated as Master Trainers in Meat and Poultry Products Processing for Punjab state under the Centrally Sponsored Prime Minister Formalisation of Micro food processing Enterprises Scheme (PMFME Scheme), Government of India.

### **Best/Innovative Article Award(s)**

Articles submitted to 'Agriculture & Food: e-Newsletter' by the fraternity of College of Animal Biotechnology were adjudged winners for the Best/Innovative Article Award(s).

- Article entitled 'Common Routes of Pesticides Exposure and its Protective Measures' authored by Srishti Prashar, Nasrul I. Shaikh, Prakriti Sharma, S.S. Sodhi and R.S. Sethi got 'Best Article Award'.
- Paper on 'Pesticide Usage and its Impact on Biodiversity' by Nasrul I. Shaikh, Srishti Prashar, Prakriti Sharma, and R.S. Sethi also bagged 'Best Article Award'.

### **Junagadh Agricultural University, Junagadh**

### **Best Performing Research Station Award**

Pearl Millet Research Station, JAU, Jamnagar has been appreciated with ICAR-AICRP on Pearl Millet Best Performing Research Station award for the year 2020-21. This award was

### **Awards in IDP-NAHEP Sponsored National e-Conference**

The University scientists and students bagged award(s) in the IDP-NAHEP sponsored National e-conference on 'Igniting young minds for sustainable growth through entrepreneurship and skill development: a vets vision' held at GADVASU, Ludhiana.



- Dr Pavan Kumar was awarded first prize for his poster entitled 'Entrepreneurship development through meat and egg processing' presented under Theme I: Value Addition and Entrepreneurship Development.
- Dr Leishangthem Geeta Devi bagged first prize for poster presentation 'Control of zoonotic tuberculosis: a one health approach' under Theme III: One Health Concept.
- Dr Jyoti got first prize for her presentation 'Integrated and sustainable control of cattle tick infestation' under Theme IV: Clinical management of animals.



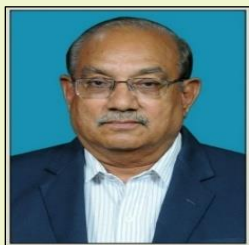
given by Dr T.R. Sharma, DDG (Crop Science), ICAR, New Delhi in the 56<sup>th</sup> Annual Group Meeting of AICRP on Pearl Millet held in virtual mode during 22-23 March 2021



**Certificate of Best Performing Research Station Award**

hosted by Project Coordinator (Pearl Millet), AICRP on PM, Mandor, Jodhpur (Rajasthan).

### Life Time Achievement Award



**Dr A. R. Pathak**



**Dr N. C. Patel**

Former Vice Chancellors of Junagadh Agricultural University Dr A. R. Pathak and Dr N. C. Patel were felicitated with "Life Time Achievement Award" on 27 February 2021 by reputed National Magazine *Agriculture Today* in ceremony "Agri-Education Awards 2021". The event was organized to felicitate the contributors in Agricultural Education Development in India. The award ceremony was held virtually in auspicious presence of Dr Trilochan Mohapatra, Director General, ICAR and other dignitaries.

### Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar

- Inspiring Lady Veterinarian Award (2021) under the category Academia conferred to **Dr Swati Dahiya**, Scientist, Department of Veterinary Microbiology, by Pashudhan Praharee for significant contribution to society and upliftment of veterinary profession.

### Odisha University of Agriculture and Technology, Bhubaneswar

#### University of The Year Award for OUAT

During last couple of years, Odisha University of Agriculture and Technology, Bhubaneswar has initiated various measures to excel in academic, research and extension education activities. Some of the policy initiatives are creation of Technology Management Cell, OUAT Foundation Fund, OUAT Kalinga brand & Krishi Kalinga Innovation Council; organization of mega Farmers' Fair; initiation of Foundation Day Lecture and many more. The University has developed many crop varieties and several technologies in agriculture and allied sectors for the benefit of the farming community. In recognition of these accomplishments, OUAT has received the prestigious "University of the year Award 2021" instituted by Agriculture Today group in a special function organized on 27 February 2021 in virtual mode at New Delhi.

### Punjab Agricultural University, Ludhiana

**Ms Manpreet Kaur**, Ph.D. Biochemistry student was awarded the Prime Minister Fellowship.

### Tamil Nadu Agricultural University, Coimbatore

#### Vice-Chancellor Conferred with the Best Vice-Chancellor Award

In the recently concluded Sixth National Youth Convention on 'Innovation and Agricultural Reforms towards Farmers' Prosperity' jointly organized by Professor Jayashankar Telangana State Agricultural University, Hyderabad and All India Agricultural Students Association,

New Delhi on 20.02.2021, Dr N. Kumar, Vice-Chancellor, TNAU was conferred with the 'Best Vice-Chancellor Award 2020'. This is conferred for his

outstanding contribution in bringing frugal innovation and creating

pedagogy in an academic environment. Since his joining as 13th Vice-Chancellor of TNAU, he had streamlined the educational and research activities of the University which had reflected in the increased number of students clearing ICAR-AIEEA 2020 (589 students including Under graduate and Post graduate programme), internationalizing education through execution of MoUs with several International Universities and Institutes, increase in the International Adjunct faculty to 17, conduct of eight Grantsmanship workshops for young Assistant Professors numbering more than 330, release of Marker Assisted Selection (MAS) bred rice variety for the first time from TNAU, harnessing solar energy and clean and green initiatives through native tree planting and seed balls sowing, redefined research especially on drones utilization, sensors, remote sensing based crop loss assessment, addressing the pest and disease problems on a war-footing manner, enhanced seeds and seedlings production (about 1.7 times of 2017-18) to meet the demands of farmers. The Transformational changes happened in the University under his leadership helped in securing Rs 30 crore project from ICAR under NAHEP. All these contributed in elevation of the University in the ICAR ranking to 8th position from 33. Besides, more number of publications with NAAS rating of more than six resulted in an upsurge of h index of the University to 78 in 2020 from 52 during 2018. External agency funded projects' support had also witnessed a steep increase to



Rs 57 crore during 2020 vis-a-vis Rs 18.90 crore during 2018.

## MoUs

### Ch. Sarwan Kumar H.P Krishi Vishwavidyalaya, Palampur

**1. Organisation:** M/s RK. Seeds Farm, Solan and M/s ACSEN Hv Veg. Private Limited, Rajpura Punjab on January 2021.

**Purpose:** Under CAAST project for students' training.

**2. Organisation:** M/s Nutranta Seeds Private Limited, Hyderabad on January 2021.

**Purpose:** Seed production and marketing of Garden Pea variety "Him Palam Matar 2".

**3. Organisation:** ICAR-NBPGR, New Delhi on February 2021.

**Purpose:** DUS Testing Centre (Buckwheat) at Sangla

**4. Organisation:** Brooks Hospital, Delhi on March 2021.

**Purpose:** Skill Upgradation to Veterinarians and Para professionals.

### Dr Y.S.R. Horticultural University, Venkataramannagudem

- Entered Memorandum of Understanding (MoU) with the ICAR, Central Tuber Crops Research Institute (ICAR-CTCRI), Thiruvananthapuram, Kerala signed MoU on 30.12.2020 (02.01.2021)
- Entered Memorandum of Understanding (MoU) with the ICAR, Central Plantation Crops Research Institute (ICAR-CPCRI), Kasaragod, Kerala signed MoU through Webinar on 05.01.2021.
- Entered Memorandum of Understanding (MoU) with the M/s. Jain Irrigation Systems



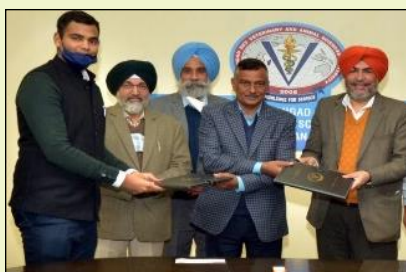
Limited (JISL), Jalgaon, Maharashtra signed MoU on 06.01.2021.

- Exchange of MoUs with ICAR-Indian Institute of Oil Palm Research (ICAR-IIOPR), Pedavegi, West Godavari District & Sir Arthur Cotton Nursery Farmers Association, Kadiyam, Rajahmundry, East Godavari District entered on 19 January 2021.
- Entered Memorandum of Agreement (MoA) with Protection of Plant Varieties and Farmers' Rights Authority (PPV & FRA), Government of India, New Delhi for establishing of Second new DUS (Distinctness, Uniformity and Stability) Centre at HRS, Anantharajupeta signed MoA on 02.02.2021.
- Entered Memorandum of Understanding (MoU) with Echo Care Bio Solutions Private Limited Heber Road, Beema Nagar, Trichy, Tamil Nadu on commercialization of technology (*Mallada* sp. = *Dichochrysa astur*) *Nucleus culture* signed MoU on 05.03.2021.
- Entered Memorandum of Understanding (MoU) with ICAR, Central Soil Salinity Research Institute (ICAR-CSSRI), Karnal, Haryana signed MoU on 08.03.2021.
- Entered Memorandum of Understanding (MoU) with ICAR, Central Research Institute for Dryland Agriculture (ICAR-CRIDA), Hyderabad signed MoU on 12.03.2021.

## Guru Angad Dev Veterinary and Animal Science University, Ludhiana

### GADVASU pacts with BCL industries for livestock feed

GADVASU, Ludhiana and BCL Industries Limited, Bathinda, Punjab, signed a Memorandum of Understanding (MoU) to study the utilisation of Dried Distillery Grains with Solubles (DDGS)



as livestock feed. On behalf of GADVASU, Dr J.P.S. Gill, Director of Research and on the behalf of BCL Industries Ltd., Mr Kushal Mittal, Joint Managing Director signed the MoU in the presence of Dr Inderjeet Singh, Vice-Chancellor, GADVASU. Dr Singh congratulated the faculty of the Department of Animal Nutrition and Officials of BCL industries for this academia-industry joint venture, whose outcome would be crucial in raising income of livestock farmers.

## Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior

Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior, has signed MoU on 17 November, 2020 with Dalhousie University, Canada for Dual Degree Programme and Faculty Development Programme (FDP) under NAHEP.



Online MoU Signing Ceremony between RVSKVV,

## Sher-e-Kashmir University of Agricultural and Sciences and Technology, Jammu

1. MoU signed with NABARD for acting as Cluster based Business Organization (CBBO) for formation and promotion of Farmer Producer organization in Jammu region.
2. MoU signed with National Cooperative Development Corporation (NCDC), New Delhi for acting as Cluster based Business Organization (CBBO) for formation and promotion of Farmer Producer organization in Jammu region.

## Tamil Nadu Agricultural University, Coimbatore

### TNAU signed MoU with NBRI, Lucknow

TNAU and CSIR - National Botanical Research Institute, Lucknow signed an MoU on 11.01.2021 to establish research

collaborations in the sphere of pest management in flower crops, crop improvement in cotton and multi-location trials in south India.



Dr N. Kumar, Vice-Chancellor, TNAU, welcomed the gathering and narrated the significance of MoU in the identified areas of mutual interest between the two institutes. After the MoU signing event, the Director Dr Saroj Barik, Director, CSIR - NBRI, Lucknow, interacted with Professors who prefer to propose joint research programs for funding.

### MoU with IITA, Ibadan, Nigeria

An MoU was signed on 26.01.2021 between TNAU, Coimbatore and International Institute of Tropical Agriculture

(IITA), Ibadan, Nigeria on virtual mode for Collaborative research in banana and



plantain specifically but without limitation to other crops. TNAU, Coimbatore is the pioneer institute in banana breeding in India and since its formation in 1971, is actively pursuing banana improvement programmes. The IITA is a non-profit institution that is working with various partners through the CGIAR research programs for ensuring food security in Africa. On behalf of TNAU, Dr N. Kumar, Vice-Chancellor and on behalf of IITA, Ibadan, Nigeria, Dr Dashiell Kenton, Deputy Director

General for Partnerships signed the MoU in presence of TNAU officials.

### MoA with M/s. Envigreen, Bengaluru

Agricultural Engineering College and Research Institute, TNAU, Coimbatore signed

Memorandum of Agreement with M/s. Envigreen Biotech Pvt. Ltd, Bengaluru on 27.01.2021 for development of



100 % biodegradable films. M/s. Envigreen Biotech India Private Limited, Bengaluru produces biodegradable substitute to plastics, which are made from natural starch, vegetable oil derivatives and vegetable waste. A pilot plant will be setup at TNAU, Coimbatore with the technical support of M/s. Envigreen Biotech India Private Limited, Bengaluru to augment research. The Memorandum of Agreement was signed in the presence of Vice-Chancellor Dr N. Kumar, Dr A.S. Krishnamoorthy, Registrar, Dr B. Shridar, Dean (Engg.) and Dr P. Rajkumar, Professor and Head, Department of Food Process Engineering, AEC&RI, TNAU, Coimbatore.

## University of Agricultural Sciences, Dharwad

### UAS, Dharwad Enters into MoA (Memorandum of Agreements) With Agripreneurs of Krishik

University of Agricultural Sciences, Dharwad has signed Memorandum of Agreements (MOAs) with fifteen Agri start-ups on 04.01.2021 who are being incubated at KRISHIK Agribusiness Incubator, UAS, Dharwad, under the Innovation and Agri-Entrepreneurship program of RKVY-RAFTAAR scheme, Department of Agriculture Co-operation & Farmers Welfare (DAC&FW), MoA,

GoI. Under the scheme, Rs 189.92 lakh has been sanctioned as grant-in-aid to 15 agri start-ups, out of which 7 are seed stage startups with a funding of Rs 150 lakh and 8 are pre-seed stage start-ups with a funding of Rs 39.92 lakh. The



**UAS, Dharwad enters into MOA (Memorandum of Agreements) with Agripreneurs KRISHIK Agri startups**

amount will be released in installments to these start-ups related to information technology, internet of thing and artificial intelligence in agriculture, farm mechanization, food processing and value addition, organic farming, value chain, dairy and veterinary, agricultural extension etc. KRISHIK ABI will be responsible for monitoring and implementing the milestones. Vice-Chancellor, Dr M. B. Chetti, Registrar, Dr V. R. Kiresur, Director of Research, Dr P. L. Patil, Comptroller, Shri S.M. Honnalli, and other esteemed members were present on the occasion. The Principal Investigator and CEO of KRISHIK ABI Dr A. S. Vastrad congratulated the incubates and interacted with them along with his team.

## TECHNOLOGIES COMMERCIALIZED

**Dr Y.S.R. Horticultural University,  
Venkataramannagudem**

### Technology commercialized / licensed

As vast acreage of plantation crops is affected by Rugose Spiraling Whitefly (RSW) and with the recommendation of pesticide holiday for RSW, focus was on augmentative bio-control. To enhance bio-agents supply practical training on rearing of host *Corcyra cephalonica* and predator *P. astur* was contemplated and accordingly the entire protocol of mass rearing

of *C. cephalonica*, production of *P. astur* and its release technique was imparted to four private companies involved in bio-agent's production. The University entered MoA with following companies and are successfully producing the predator *Pseudomallada astur*.

1. M/s. CRYPTOX BIOSOLUTIONS, Perumchilambu, Velimalai Village, Tamilnadu.
2. M/s SSD, Kothapalli Village, Gopannapalem, Denduluru Mandal, West Godavari Dist 534450, Andhra Pradesh.
3. M/s Godrej Agrovet Limited, Ch. Pothepalli, Dwaraka Tirumala Mandal, West Godavari Dist 534451, Andhra Pradesh.
4. M/s Echo Care Bio Solutions Pvt. Ltd, Trichy, Tamil Nadu.

**Punjab Agricultural University,  
Ludhiana**

### Technology(ies) commercialized/ licensed during January-March 2021

#### 1. Sugarcane Juice Bottling Technology

##### Stakeholder

- Cocoland International LLP, Jamnagar, Gujarat
- M/s. Ratan Agro Food, Patti Gadi, Kaithal, Haryana

#### 2. Paddy Straw Based Biogas Plant made up of Mild Steel Sheet (Above the Ground)

##### Stakeholder

- Param Hi-Tech, Ludhiana-141003, Punjab
- Bhullar Enterprises, VPO Bija, District Ludhiana, Punjab
- Green Energy Solutions, Ludhiana-Punjab



- Koshish Sustainable Solutions Pvt. Ltd, Delhi
- CEID Consultants and Engineering Pvt. Ltd, Fazilka, Punjab

### 3. Rooftop Vegetable Nutrition Garden Model using Soilless Media Technology

#### Stakeholder

- Agri. Doctorz Company, Ludhiana- (Punjab)

### 4. Chilli Hybrid CH 27, Brinjal Hybrid PBH 3, Pumpkin Hybrid PPH 1, Muskmelon Hybrid MH 27, Onion Hybrid POH 1, and Variety PRO 7

#### Stakeholder

- National Horticultural Research & Development Foundation, Bagwani Bhawan, Janakpuri, New Delhi

### 5. Modified PAU fixed Dome Type Janta Model Biogas Plant having capacity from 25 m<sup>3</sup>/day to 500 m<sup>3</sup>/day.

#### Stakeholder

- Green Energy Solutions, Ludhiana-Punjab
- Mr Harpreet Singh, VPO- Bhaini Barhinga, Raikot, Ludhiana, Punjab
- Mr Jaswinder Singh, VPO-Chhapa, Barnala, Punjab
- CEID Consultants and Engineering Pvt. Ltd., Fazilka, Punjab

### 6. Seeds of parental lines of chilli hybrid CH-52

#### Stakeholder

- Generation seeds private limited, Bhagatpur, Kapurthala, Punjab

### 7. PAU Bt1 cotton

#### Stakeholder

- IFSA seeds pvt. Ltd Agro Food Park, RIICO, Sri Ganganagar

## COPYRIGHTS

**Chaudhary Charan Singh Haryana Agricultural University, Hisar**

### Patent(s)/copy right(s) obtained/granted

**1. Invention:** Development of Online Analysis tool for k-means cluster analysis.

**Inventor (s):** O.P. Sheroran, Vinay Kumar, Ramniwas Sheokand, Department of Mathematics and Statistics, COBS&H, CCS HAU, Hisar

**IP Protection Details:** Copyright No. SW-14121/2021, dated 18 Jan 2021.

**2. Invention:** Development of Web based Tool for Comparisons of Means (Post-Hoc Tests)

**Inventor (s):** O.P. Sheroran, Vinay Kumar, Department of Mathematics and Statistics, COBS&H, CCS HAU, Hisar

**IP Protection Details:** Copyright No. SW-14220/2021, dated 12 March 2021.

**3. Invention:** Development of Web based Application for Analysis of Augmented Designs

**Inventor (s):** O.P. Sheroran, Vinay Kumar, Sarita Rani, Department of Mathematics and Statistics, COBS&H, CCS HAU, Hisar

**IP Protection Details:** Copyright No. SW-14301/2021, dated 18 March 2021.

**4. Invention:** Development of Web based tools for Analysis of Strip Plot and Latin Square Design

**Inventor (s):** O.P. Sheroran, Vinay Kumar, Maju Singh Tonk, Department of Mathematics and Statistics, COBS&H, CCS HAU, Hisar.

**IP Protection Details:** Copyright No. SW-14302/2021, 18 March 2021.

## FUTURE PROGRAMMES/ IMPORTANT EVENTS

### Chaudhary Charan Singh Haryana Agricultural University, Hisar

#### Chief Minister, Haryana, Shri Manohar Lal laid the foundation stone of Institute of Business Management and Agripreneurship at Daultabad, Gurugram

Speaking on the occasion, the Chief Minister said that this Institute would be unique in Haryana.

Through this Institution, there will be ample

opportunities for sale and management opportunities of the agricultural products, said Manohar Lal. "At present the cultivation area is getting smaller and in such a situation we have to look for the ways to earn more profit by adopting new technology or to do cultivation in a scientific manner". Manohar Lal said that plans are being made as per the market requirements and efforts are being made by the State Government to track every farmer so that he receives seeds and manure timely and at a good price in the market so that he can become prosperous. Meet the needs of Delhi NCR, the farmer should increase production of vegetables, fruits, flowers, milk, fisheries, milk products etc. On this occasion, Agriculture and Farmers' Welfare Minister, J.P. Dalal said that the Haryana Government is working for the welfare of farmers. Whether it is about purchasing crops or giving fair prices for crops, the state government is leaving no stone unturned for the welfare of the farmers. Earlier the Vice-Chancellor of the University welcomed the Chief Minister and other guests



Honorable Chief Minister laying the  
foundation of the building

at the program and thanked them for laying the foundation of the building.

### Covid-19 Vaccination Camp held at CCS HAU

Covid-19 Vaccination Camp was organized by Civil Hospital, Hisar at Campus Hospital of CCS HAU on 16 March 2021. The camp was inaugurated by the Vice-Chancellor of the University. In this camp, Covid-19 vaccination was given to 45-60 age groups who had diseases like BP, Sugar etc. and registered themselves besides this the Covid-19 vaccination was also given to all the registered employees above 60 years of age. A total of 190 employees of the University got vaccinated in the camp.



CCS HAU VC inspecting Covid-19  
Vaccination Camp at Campus  
Hospital

### Ch. Sarwan Kumar HP Krishi Vishwavidyalaya, Palampur

The CSKHPAU is to extend mobile advisory services to the Gaddi farmers during migration. 19 superior breeding bucks were distributed to farmers for genetic improvement of the flock.



### Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana

On the initiatives of Dr Inderjeet Singh, Vice-Chancellor, GADVASU, the Punjab Government has sanctioned a project to the tune of Rs 107.31 lakh to the University to set

up a Model Gaushala at the University campus. There are nearly 1.6 lakh stray cattle roaming on the roads of Punjab (50.22 lakh in country). These cattle are one of the major reasons for road accidents, damage crops and forest plantations. Some people let loose the cows after their productive life is over. Moreover, stray animals are usually malnourished and wounded, and thus suffer themselves.

The gaushala will be managing the stray cattle in self-reliant basis on scientific lines with available inexpensive techniques involving low cost comfortable housing, feeding and healthcare facilities. Model Gaushala will be a demonstration unit depicting scientific cattle management with economic rearing and zero-waste production that can be replicated at gram panchayat / taluka levels in the state/country. It will demonstrate the actual potential of stray cattle (a national resource) that can be harnessed in the form of income generation, genetic improvement of germ-plasm etc.

### **Lala Lajpat Rai University Of Veterinary and Animal Sciences, Hisar**

The Department of Veterinary Microbiology, LUVAS is recognized by ICAR as Centre of Advanced Faculty Training to provide training to faculty of State Agricultural Universities/ State Veterinary Universities and ICAR institutes of the country. The ICAR-CAFT of this department has so far organized 34 courses for the faculty since 1996. On the request of participants of previous CAFT courses, the department has planned to conduct the next trainings on the topical issues of “Combating Antimicrobial Resistance in Livestock and Poultry: Recent Advances in Surveillance, Diagnostics and Therapeutics” and “Foundation Course in Veterinary Microbiology” as per MSVE-2016-I (Unit 1, 2 and 3). The learned faculty members of the

department along with External Resource Faculty have the expertise to conduct this ardent course on cell based technologies.

Dr S. K. Kadian, Ex. Professor and Head, ICAR Emeritus Scientist will work on a research project on Murrah buffalo immunology. Interleukin-17A is a signature cytokine of TH-17 cells and gamma delta T cells. IL-17 is important in the pathogenesis of autoimmune diseases and provides defense against bacterial, fungal infections on the mucosal surfaces of GI tract and respiratory tract. So, genomic sequences of full length and protein coding fragments of IL-17A gene will be done for the first time in Murrah buffalo. After cloning and expression in *E. coli* or yeast, biochemical and immunological characterization of IL-17 will be done.

### **Sher-e-Kashmir University of Agricultural and Sciences and Technology, Jammu**

- State level Kisan Melas in October 2021 and March 2022
- Extension Council Meeting for finalizing extension programmes of University
- Zonal Research and Extension Council meetings for *kharif* and *rabi* seasons to cater the farmers' needs for providing suitable solutions to the field problems.
- Introduction/development of table, quality varieties in commercially important vegetables and flowers crops.
- Refinement in Climate Resilient Technologies in Vegetable and Flower crops.
- Seed production of the released varieties for 'meeting the demand of Line Department and Farming community'.
- One workshop will be organized by division of Statistics and Computer Science on "National Statistics Day" tentatively on 29th & 30th June, 2021 in anticipation to the approval.



## NEW VICE CHANCELLORS

### Anand Agricultural University, Anand

#### DR K. B. KATHIRIA

Dr K. B. Kathiria has been appointed as the fourth regular Vice-Chancellor of Anand

Agricultural University by the Government of Gujarat on



03.03.2021. Dr Kathiria earned his Bachelor's degree of B.Sc. (Agri.) from Gujarat Agricultural University, S. K. Nagar in 1979; Masters from University of Udaipur, Udaipur in 1981 and Doctoral degree from Rajasthan Agricultural University, Bikaner in 1992 with specialization in Plant Breeding and Genetics.

Dr Kathiria has devotedly served on various positions in the field of education and research at the Agricultural University for more than 37 years. He also served as the Director of Research and Dean PG Studies at Anand Agricultural University for more than 8 years. He has developed more than 35 Agro technologies for the benefit of the farming and scientific community. More importantly, as a plant breeder, he has developed or contributed in 39 varieties/hybrids of crops like wheat, vegetables and chickpea. Among these, Gujarat Wheat 496 (GW 496) variety developed and released in 1990, is very popular as '*Tukdi*' among the farmers, which occupies about 70% of the wheat area (about 4.5 to 5.0 lakh ha) of Gujarat State till date and is also cultivated in Rajasthan, Maharashtra and Madhya Pradesh. Due to cultivation of this variety, farmers get the advantages of rust resistance along with superior quality which fetches about 15% higher price. Another popular variety developed by him is Gujarat Anand Okra-5, which was developed and released in 2011. It is highly

resistant to major disease of Okra i.e. Yellow Vein Mosaic Virus which damages the crop up to 80%. In the field of research. He has received 9 different awards/rewards, including the prestigious Sardar Patel Research Award, of the Gujarat Government for contribution in development of important varieties of vegetable crops. He has guided 14 Ph. D. and 18 Master degree students in the subject of Plant breeding and Genetics. Among these, 2 students have received Best Thesis award of the university.

During his services as Director of Research at Anand Agricultural University, he has also contributed for development of 40 varieties/hybrids in different crops which includes maize varieties; Sweet Corn Hybrid-Gujarat Anand Sweet Corn Hybrid 11, Pop Corn Hybrid -Gujarat Anand Pop Corn Hybrid 21 and Baby Corn Hybrid- Gujarat Anand Yellow Maize Hybrid 1; Green Gram varieties; Gujarat Anand Mungbean-5 (highly resistant to Yellow Mosaic Virus disease). Due to his intensive efforts since 2015, the population of native cattle Dagri found in Dahod and adjoining tribal districts has been identified and recognized at the national level as the new local breed. Under the direct guidance of Dr Kathiria, AAU has recently recognized third poultry breed of Gujarat named as Aravalli. The process of its registration at NBAGR, Karnal is under progress.

Under his tenure, AAU has signed more than 50 national and international level MoUs, which have strengthened the academic pursuit of the University. Apart from this, due to his diligent efforts, research-based schemes funded by the State as well as the Government of India, have been implemented at the Anand Agricultural University. First time in the country focused efforts on Distant hybridization in field and fruit crops have been made to utilize the wild plant genetic resources for disease and pest resistance, quality and other important traits for incorporating in the cultivated species. This has resulted in very promising outcome in the crops like tomato,

okra, desi cotton, cucumber, chili and fruit crops.

Dr Kathiria has also been associated with the Multi-Institutional Networking Project namely “Production and Demonstration of Tissue Culture Raised Plants Under Three Locations with Collection and Maintenance of Elite Germplasm of Date palm”, running at Center for Advanced Research in Plant Tissue Culture, AAU, Anand. Anand Agricultural University has a major role to play in the demonstration of Date Palm tissue culture technology produced among the centers like CIAH-Bikaner, CAZRI-JODHPUR, MDPRS-SDAU (Mundra) involved in this project.

Apart from this, he has also made invaluable contributions in the establishment of laboratories/units and implementation of various research projects like NAHEP-CAAST, Pesticide Residue Laboratory (NABL-Accredited), Food Quality Analysis Laboratory (NABL-Accredited), Soil and Water Quality Laboratory, Biofertilizer Unit, Animal and Plant Biotechnology, Biocontrol, Seed Testing Technology Centre and Horticultural Crops’ research. His focused efforts on implementing number of research projects under Rashtriya Krishi Vikas Yojna (RKVY) have resulted in significant improvement of the infrastructural facilities especially of the research centers/sub centers of the university, which has augmented the research output. As a Dean of Post-Graduation Studies, he has also been instrumental in strengthening postgraduate education and research through various reforms including improvement in PG academic regulations, quality of synopsis and thesis, library facilities etc.

Dr Kathiria has published more than 120 research papers in International and National journals of repute, 36 books/book chapters and more than 100 popular articles in vernacular language. As a part of a progressive attitude and continuous strive for excellence, he played a major role in preparing the

document “VISION 2050” of AAU which emphasized on fuller utilization of AAU’s existing capabilities/infrastructure coupled with deeper and broader collaborations and consortia with a trans-disciplinary approach by engaging best brains. He is also nominated as a member /expert in various academic /administrative committees at the State and National level.

For a son of farmer of a middle-class family becoming appointed as the Vice Chancellor of a reputed University, is a matter of pride. The University has received the leadership of a veteran academician as well as a successful scientist in form of Dr K. B. Kathiria, who has become an ideal for many people across the state because of his simplistic nature, work attitude and passion towards the betterment of farming community.

### **Mahatma Phule Krishi Vidyapeeth, Rahuri**

#### **DR P. G. PATIL**

Dr P.G. Patil did his B.Tech. (Agri.Engg.) from MPKV, Rahuri, M.Tech. (Post-Harvest Engineering) from IIT, Kharagpur and Ph.D. from VNIT, Nagpur. He has a professional experience of more than 28 years in R&D and Research Management in Post-Harvest Processing of Cotton and Value Addition. He worked as Ginning Consultant, Technology Mission on Cotton, Ministry of Textiles and has made significant contribution in modernization of cotton ginning industry in India. He also served as Professor and Head, Department of Farm Structures, Dr BSKKV, Dapoli and Director of ICAR-Central Institute for Research on Cotton Technology, Mumbai.

He has handled about 20 National and International projects including project funded by Common Fund for Commodities (The



Netherlands), UNCTAD (Geneva). He has developed and commercialized 17 novel technologies on processing of cotton, by-product utilization and nano-cellulose production technology. He has a patent on DR Gin improvements to his credit.

He has also vast international exposure and has actively contributed to the development of the cotton sector in African Countries, namely, Benin, Uganda, Malawi and Tanzania. He is instrumental in establishing Ginning Knowledge Cluster in Benin under Cotton TAP for Africa Programme of Government of India. He worked with United Nations Conference on Trade and Development, Geneva on development of cotton by-products sector of Eastern and Southern African Countries viz., Zambia, Zimbabwe, Tanzania and Uganda. He is presently holding the position of Chairman, Asian Cotton Research and Development Network (ACRDN) of International Cotton Advisory Committee, Washington. He visited countries like USA, Uganda, Benin, Tanzania, Bangladesh and Malawi. Under his leadership, ICAR-CIRCOT bagged prestigious Sardar Patel Outstanding ICAR Institution Award 2019. He has many awards and recognitions to his credit viz., Fellow of The Textile Association (India) and Indian Society of Agricultural Engineers; Golden Jubilee Award (KVIC, Ministry of MSME, Government of India); Dr V. Santhanam Special Prize (Indian Society for Cotton Improvement); R. K. Jain Memorial Award (Indian Society of Agricultural Engineers); Ahilyadevi Anap Award (Indian Society for Cotton Improvement); Silver Medal for paper published in Industrial Engineering Journal. He was instrumental in garnering the award of Cashless transaction Institute of ICAR. He was also the Executive Council Member of Dr Panjab Rao Deshmukh Krishi Vidyapeeth, Akola and Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani and Navsari Agricultural University, Navsari (Gujarat). He was also nominated by Governor of Maharashtra State as Nodal Officer for

selection of Vice-Chancellors of Dr PDKV (Akola), VNMKV (Parbhani), MAFSU (Nagpur), Dr BSKKV (Dapoli).

He has published more than 120 research papers in reputed National and International Journals, 4 books, over 75 bulletins, popular articles, book chapters, souvenirs of seminars and conferences, training course materials, etc. He is Life Member of many Professional Bodies viz., ISAE, TAI, IFS, ISCI and Executive Committee Member of ISCI and IFS and Chairman of Indian Fibre Society.

### **Uttar Banga Krishi Vishwavidyalaya, Cooch Behar**

#### **DR S. K. CHAKRABARTI**

Dr S. K. Chakrabarti graduated from Bidhan Chandra Krishi Vishwavidyalaya, Kalyani, West Bengal and obtained his M.Sc. and Ph.D. in Plant Pathology from Indian Agricultural Research Institute, New Delhi. He also did post-doctoral research work at Waksman Institute, Rutgers, USA; CIRAD, France; and NRC on Plant Biotechnology, New Delhi. He started his career as Scientist (ARS) at ICAR-Central Potato Research Institute, Shimla in the year 1986 and was promoted to Scientist (Sr. Scale) in 1991; Senior Scientist in 1998; and was selected as Principal Scientist (Plant Biotechnology) at ICAR-CPRI, Shimla in the year 2006. He became Head, Division of Plant Protection of the same institute in 2009. He joined as Director of ICAR-Central Tuber Crops Research Institute, Thiruvananthapuram, Kerala in April 2012 and continued in that position till 26 January 2016. He joined as Director of ICAR-Central Potato Research Institute in January 2016 and superannuated from there in March 2020. He then joined Uttar Banga Krishi Vishwavidyalaya, Cooch Behar as Vice-





Chancellor on 20.01.2021 and continuing in that position.

He contributed significantly in the area of potato structural and functional genomics, linkage mapping, marker assisted selection; development of transgenics for disease and pest management; and plant disease diagnostics. He was the Country Leader of the Potato Genome Sequencing Consortium that deciphered the potato genome in the year 2011. He is the Fellow of National Academy of Agricultural Sciences, New Delhi; Indian Phytopathological Society, New Delhi; Indian Potato Association, Shimla, and Confederation of Horticultural Associations of India, New Delhi. He is the recipient of Hari Om Ashram Trust Award of ICAR for the biennium 2016-17, Shri L.C. Sikka.

Endowment Award of NAAS, Dr S. Ramanujam Award of ICAR-CPRI, IPA-Kaushalaya Sikka Memorial Award (twice), Biotechnology Overseas Associateship of DBT, Prof. JP Verma Memorial Lecture Award of Indian Phytopathological Society, and Recognition Award for potato genome sequencing by ICAR-CPRI, Shimla. He published more than 400 articles, guided 7 Ph. D. students and visited several countries including Australia, Austria, Bangladesh, China, Indonesia, France, the Netherlands, New Zealand, the Philippines, Singapore, UK, and USA.