



Proceedings

7th IAUA Regional Meeting of Vice Chancellors

**Harnessing Potential of Traditional and Modern Technologies
for Sustainable Agriculture**



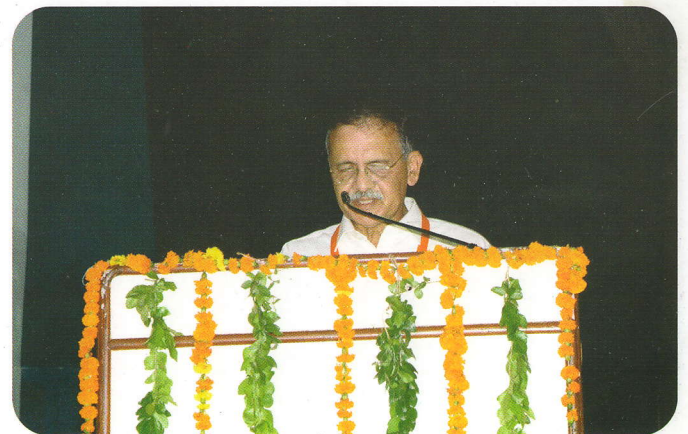
Sponsored by

Indian Agricultural University Association, New Delhi

Organized by

Chandra Shekhar Azad University of Agriculture & Technology, Kanpur







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Published November, 2018



Inaugural Session



Welcome of Chief Guest by

Dr. Sushil Solomon, VC, CSAUA&T, Kanpur and

Unveiling of Newly constructed statue of Martyr Chandra Shekhar Azad by

Chief Guest Sri. Ram Naikji, Hon'ble Governor, U.P.

- Chief Guest** : Shri Ram Naik, Hon'ble Chancellor and Governor of Uttar Pradesh
- Special Guest** : Sri. Surya Pratap Shahi, Hon'ble Minister of Agriculture, Agriculture Education and Agriculture Research, U.P. Govt.
- Guest of Honour** : Dr. Arvind Kumar, Vice Chancellor, RLBCAU, Jhansi
: Dr. A. K. Singh, DDG (Agril. Extension), ICAR, New Delhi.
- Chairman** : Dr. S. Solomon, Vice Chancellor, CSAUA&T, Kanpur
- President IAUA** : Dr. N. C. Patel, Vice Chancellor, AAU, Anand
- Secretary IAUA** : Dr. R. P. Singh, Executive Secretary, IAUA



7th IAUA Regional Meeting of Vice Chancellors inaugurated by Sri. Ram Naik, Hon'ble Governor, U.P. in the Kailash Bhawan, CSAUA&T, Kanpur

At the outset **Dr. Sushil Solomon, Vice Chancellor, CSAUA&T, Kanpur** welcomed the chief guest **Sri. Ram Naik, Hon'ble Governor, Uttar Pradesh**, special guest **Sri. Surya Pratap Shahi, Hon'ble Minister for Agriculture Education & Agriculture Research, Uttar Pradesh Government**, Guest of Honour **Dr. Arvind Kumar, Vice Chancellor, RLBCAU, Jhansi**, **Dr. A. K. Singh, DDG (Agril. Extension), ICAR, New Delhi**, the Vice-Chancellors from different agricultural universities and other distinguished guests. He highlighted that India has the largest National Agricultural Research System in the world with 101 ICAR institutes and 73 agricultural universities spread across the country. Out of these, three are central and four are deemed agricultural universities. All the agricultural universities are constantly working to improve the livelihood of farmers, food security and sustainability in agriculture through quality agricultural education, need based research and promoting entrepreneurial skills among the youth. Dr. Solomon also touched upon the theme of IAUA conference and emphasized that future agriculturists and researchers will have to gear up to ensure the proper dissemination of a blend of traditional and modern technologies in a compatible manner. Participatory programmes will play a greater role. This concept of "traditional meets modern" for enhanced productivity, profitability and most importantly, sustainability need to be driven into the minds of the future lot of researchers and students. The ultimate success of the idea will depend on sound governmental policies and accompanying incentives that can encourage the growers to go for a fusion of novel and traditional practices. He also felicitated the Chief Guest and other Guests on the Dias.





Dr. N.C. Patel, President of IAUA and VC, AAU, Anand in his presidential remark, expressed his concern over the status of farmers in Uttar Pradesh. He urged that Government should take all necessary measures to improve the livelihood of farmers. More funds should be mobilized for research programmes in the Universities. He elaborated on the theme of the conference "*Harnessing Potential of Traditional and Modern Technologies for Sustainable Agriculture*" and stressed that the sustainable agricultural practices should be able to meet the current and future societal needs for food, fuel and fibre, by maximizing the benefits for the society, when all costs and benefits are considered. For such a sustainable, profitable and productive agriculture capable of meeting the future targets of food and nutritional security, the traditional and modern farming practices should go hand-in-hand.



Dr. Arvind Kumar, Guest of Honour and VC, RLBCAU, Jhansi said that the modern strategies aimed to increase the production per unit area of land with the backing of improved varieties and intensive management practices. A meaningful incorporation of the knowledge gained from the modern and cutting-edge- technologies into some of the traditional farming practices should be the perfect way for accelerated achievement of targets in a sustainable manner, in the long run. He emphasized that varieties that are more than 15 years old should be replaced by newer high yielding varieties. Citing the example of Bundelkhand, he said that currently, only 10-12% varietal replacement is reported in this region and this needs to be improved. He advocated for opening **Seed Hubs** and establishment of small scale

agro-processing industries in the region so that the farmers can get more price of their produce. He said that Integrated Farming System (IFS) modules should be adopted. He also stressed the need of fodder banks and animal hostels in Bundelkhand region.

Dr. A.K. Singh, Guest of Honour and DDG, Agril. Extension., ICAR, New Delhi said that Krishi Vigyan Kendras (KVKs) are playing central role in imparting the technology, developed by the scientists. He also highlighted the various programmes started by ICAR like National Repository Portal for Women (NARI), *Mera Gao Mera Gaurav*, Attracting and Retaining Youth in Agriculture (ARYA) and Farmers First Programme (FFP). He urged the agricultural universities to adopt villages in their area of jurisdiction, for their holistic development.



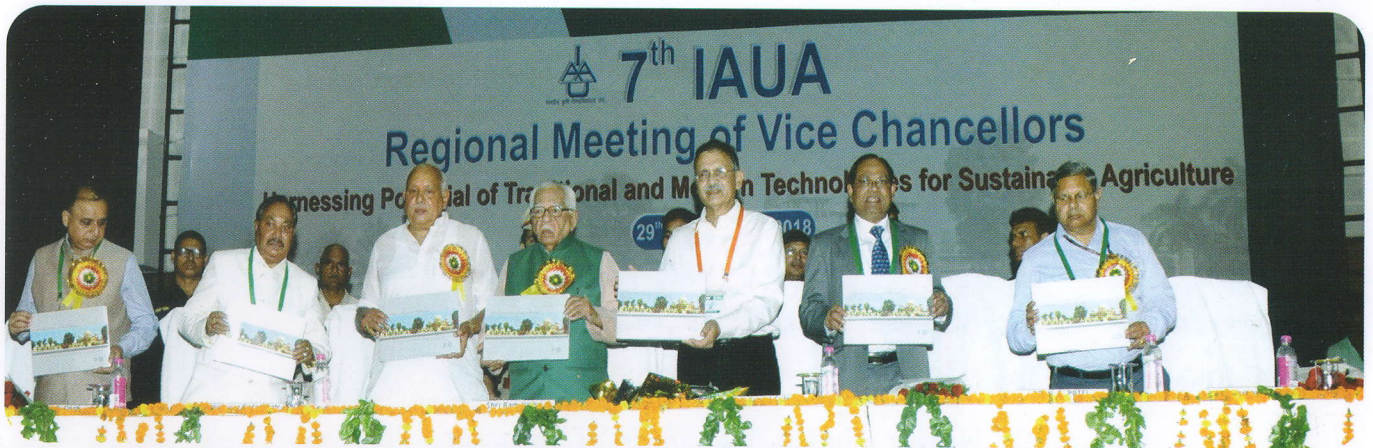
Shri. Surya Pratap Shahi, Special Guest, Minister, Agriculture Education & Agriculture Research, Uttar Pradesh Government, appreciated the significant contributions made by the scientists and farmers in increasing the agricultural production many folds after independence. He also emphasized that agriculture is the backbone of Indian economy and a blend of the traditional and modern technologies should aid in producing enough, improving the environmental quality, conserving natural resources, enhancing profitability to the grower as well as improving the quality of life of the farmer/society. Harnessing their potential and blending the two to an optimal level for sustainable crop production should be our motto for the days to come. He emphasized the need to double the farmers' income by 2022 and endorsed the adoption of animal husbandry, dairying, floriculture, cultivation of medicinal plants etc., along with other crops, under the IFS model. He advocated the use of traditional technology for crop management, which has been found to be very useful to overcome the various types of pollution and ill effects. He highlighted the various policies launched by the Government of Uttar Pradesh, which will be helpful in improving the income of farmers.



Shri. Ram Naik, Hon'ble Governor of U.P. and Chief Guest of the function paid rich tributes to Martyr Chandra Shekhar Azad and former Prime Minister, Late Shri Atal Bihari Vajpayeeji and recalled their unparalleled contributions towards the nation. He also complemented the farmers of the state of Uttar Pradesh who have contributed immensely to increase the agricultural production in the state in recent years. While reviewing the efforts being undertaken to increase the farmers income, the Hon'ble Governor was highly optimistic that these steps will improve the economic condition of the farmers. He also suggested a period of five years as the tenure of Vice Chancellors of State Agricultural Universities, in order to ensure a more efficient functioning of the universities. He was hopeful that some important recommendations will emerge out of this 7th IAUA meeting of Vice Chancellors.

Dr. R.P. Singh, Executive Secretary, IAUA, extended vote of thanks, and this was followed by the National Anthem.





Technical Session – I

Sub Theme: Integrating Traditional & Modern Knowledge Systems in Improving Agricultural Productivity

- Chairperson** : Dr. Arvind Kumar, VC, RLBCAU, Jhansi.
- Co-Chairperson** : Dr. U. S. Sharma, VC, MPUAT, Udaipur.
: Dr. Nazeer Ahmad, VC, SKUAST, Srinagar.
- Panelists** : Dr. P. D. Juyal, VC, NDVSU, Jabalpur
: Dr. G. L. Keshwa, VC, AU, Kota
: Dr. S. B. Lal, Pro. VC, SHUATS, Allahabad



The Chairman **Dr. Arvind Kumar, VC, RLBCAU, Jhansi** welcomed the delegates and introduced the theme of conference. **Dr. A. K. Singh, DDG (Agricultural Extension), ICAR & Director (Acting), IARI** spoke on Enhancing Outreach of NARS to the Society. He opined that our focus should be on small farmers, in view of the constraints for resources faced by this group. Issues like the access of small holders to markets, value chains, employment generation, role of small holders in enhancing food security, differential policies and institutional support for small holders, challenges and future options for small holding agriculture including information needs should be properly addressed. Since, we are lagging in secondary agriculture, new institutional

arrangements need to be made which should be farmer-centric. Projects like Attract and Retain Youth in Agriculture (ARYA), *Mera Gaon Mera Gaurav* (MGMG), NARI, *Kisan Sampada Yojana*, NARS mobile app 117 (a web based advisory for farmers) have been launched. Special efforts are to be made for enhancing farmer-scientist interface, network linkages with stakeholders and to initiate precision agriculture/climate smart agriculture and zero residue burning practices. A better integration of programmes like RAWI, student READY & ABHYAS internship can help in building resource base for innovation. Integrated Farming System (IFS) module representing multiple enterprises such as cropping, livestock, beekeeping and fish farming on a single farm in an integrated manner, that has the potential for doubling the farmers' income should be adopted and popularized throughout the country. Such modules have already been initiated at IARI and other agricultural universities.





The next lecture in the session was delivered by **Dr. P. K. Sharma, VC, SKUAST, Jammu**. He focused on the *Traditional Wisdom of Water Management in Hills*. He highlighted the advantages of traditional system of water management which is based on the requirement and availability of resources, *Sanskars, Sanskriti* and *Niti* which are region, religion and culture specific, respectively. Hill and mountain agro-eco-systems are characterized by inaccessibility, fragility, marginality, diversity, & niche farming potentials and adaptation mechanisms. He listed the various agricultural constraints in these areas such as difficult agro-climatic conditions, poor and expensive infrastructure and service support, socio-economic and socio-cultural constraints, shrinking water resources in hills and the limited scope of expanding water supplies. To cope up with these constraints, he emphasized on the need for rain water harvesting, rejuvenation of traditional water systems such as *kul, khul, gul* and *guhls*, roof top water harvesting, lining of water harvest systems etc., with community participation. Moreover, traditional and modern systems of water harvesting need to be adopted side by side.



Prof. Ashok Kumar Sarial, VC, CSKHPKV, Palampur threw light on the *Prospects of Organic and Natural Farming for Sustainability in Hilly and Mountainous Region*. During the past 60 years, spectacular growth in agriculture was observed due to the impact of *Green Revolution* by way of using chemical fertilizers, synthetic pesticides, high yielding varieties, farm machinery and irrigation. In the long run, chemical farming proved to be hazardous for agriculture as well as for human health. He pointed out that most of the areas in India and in hill regions are rain-fed, with small and marginal land holdings. The farmers are economically poor and use minimal agro-chemicals. The hilly areas have vast scope for the development of organic agriculture and or Zero Budget Natural Farming (ZBNF), a method of farming where the cost of cultivation of crops is almost zero.

Dr. Nazeer Ahmad, VC, SKUAS, Srinagar (Panelist) fully agreed with the views of **Dr. A. K. Singh, DDG, Extension, ICAR, New Delhi**, and pointed towards the very low level of adoption of technologies (to the tune of 49%) among the farmers. He suggested that extensive efforts from the concerned government departments are required and facilities should be provided to the scientists to visit villages for monitoring the various programmes.





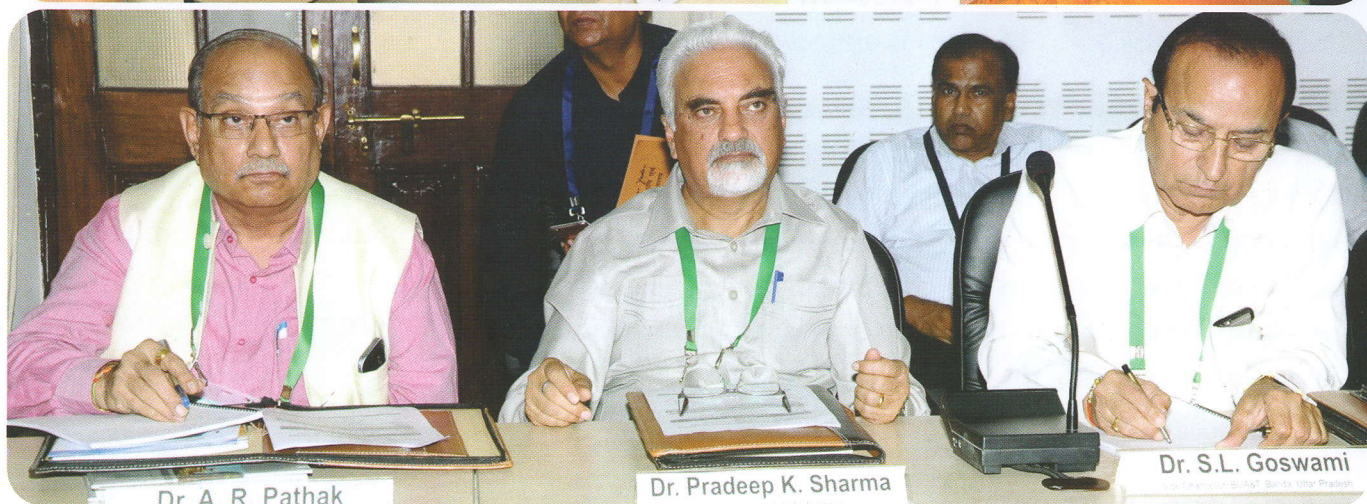
Dr. G. L. Keshwa, VC, AU, Kota and Dr. S. B. Lal, Pro-VC, SHUATS, Allahabad (Panelists) pointed out that value addition of various agro-products is necessary and rural entrepreneurship should be encouraged for retaining the youth in villages.

The chairman of the session, **Dr. Arvind Kumar, VC, RLBCAU, Jhansi** gave his concluding remarks and congratulated all the speakers for their meticulous presentations. He emphasized that KVK's have a major role in



popularizing the new technologies among farmers. These should be strengthened by providing more facilities and resources and also emphasized upon the necessity and suitability of Seed Hub for Cereals and Pulses, as a step towards doubling the income of farmers by 2022.

Rapporteurs : Dr. Poonam Singh, Dean, College of Agriculture, CSAUAT, Kanpur
: Dr. Madhu Vajpeyi, Head, Agril. Biochemistry, CSAUAT, Kanpur





Technical Session-II

Sub Theme : Stressed Eco-systems and Small Holder's Agriculture: Sustainability through Good Agricultural Practices

- Chairperson** : Dr. N. C. Patel, VC, AAU, Anand.
- Co-Chairperson** : Dr. Pradeep Kr. Sharma, VC, SKUAST, Jammu.
: Dr. Ashok Kumar Sarial, VC, CSKHPKV, Palampur
- Panelists** : Dr. S. L. Goswami, VC, BUAT, Banda
: Dr. K. Ramasamy, VC, TNAU, Coimbatore.
: Dr. G. L. Keshwa, VC, AU, Kota

The session was chaired by **Dr. N.C. Patel, VC, AAU, Anand**. He welcomed all the dignitaries, invited speakers and co-chairpersons **Dr. P. K. Sharma, VC, SKUAST, Jammu & Dr. A. A. Sarial, VC, CSKHPKV, Palampur** and initiated the discussion.



Dr. Arvind Kumar, VC, RLBCAU, Jhansi expressed his views on "*Issues and Challenges before the Farmers of Bundelkhand*". Bundelkhand region having 65% area under rain fed condition, has a variable climate, with maximum temperature reaching above 47°C at times. The annual rainfall in this area ranges from 750-1050 mm. There are three types of soils namely red soils, black soils and alluvial soil. Cultivation is predominantly on *Parva* and *Maar* soil. The total area of the region is 70,000 sq. kilometer. Presently, the main crops of the region are chick pea, lentil and mustard. Sugarcane is grown in the area that comes under the state of Madhya Pradesh, and is mostly used for chewing and jaggery making. Soya bean is also coming up in some parts adjacent to M.P. Earlier, millets was the main crop but at present, the millets are being replaced by wheat which is not a good practice, keeping in view the low availability of water. The major

constraints of the region are the very low rate of seed as well as varietal replacement. Only 10-12% seed replacement rate is reported which is one of the reasons of low production and productivity in this area. He also informed that even 25 years old varieties are being grown by the farmers. Soil is deficient in nutrients, particularly nitrogen. Bundelkhand region is characterized by recurring drought and sometimes excessive rain. Lack of farm mechanization is another lacuna. He also emphasized about problems of stray animals (*Anna Pratha*) which creates havoc destroying the crops and called for an urgent practical solution. Establishment of animal shelters/hostels, breed improvement, production of green fodder & establishment of fodder banks were also suggested.

Dr. S. L. Goswami, VC, BUAT, Banda (Panelist) endorsed the views of **Dr. Arvind Kumar** in his presentation and reiterated about the prevailing continuous drought in the region. He also emphasized that new varieties of crops and high quality seeds of improved varieties need to be supplied to the farmers



Co-chairman **Dr. P.K. Sharma, VC, SKUAST, Jammu** suggested that the major responsibility of Central Agricultural Universities should be to address the problems of its agro climatic zone. Panelist **Dr. Keshwa, VC, AU, Kota** suggested that there is a need for development of efficient irrigation systems in the region, especially for black soil. He also suggested the inclusion of new varieties in the Package of Practices recommended for this region. Another panelist **Dr. K. Ramaswamy, VC, TNAU, Coimbatore** talked about promoting off-farm enterprises such as honey bee keeping. Ecological engineering system need to be developed along with millets in integrated farming system.



President **Dr. N.C. Patel, VC, AAU, Anand** expressed his concern on the mushrooming of private agriculture colleges in the states, where thousands of students get admitted in the undergraduate courses. These colleges flout the guidelines for quality agricultural education recommended by ICAR which may in the long run, lead to a decline in the quality of education offered.

Rapporteurs : Dr. Ved Ratan, Dean, College of Community Sciences, CSAUAT, Kanpur
: Dr. C. L. Maurya, Director Seed & Farms, CSAUAT, Kanpur





Technical Session-III

Sub Theme: Integration of Livestock, Fish Production and Non-Farming Enterprises for Profitable Agriculture: Application of Traditional and Modern Knowledge

- Chairperson** : Dr. A.R. Pathak, VC, JAU, Junagadh
- Co-Chairperson** : Dr. K. P. Vishwanatha, VC, MPKVP, Rahuri.
: Dr. S. L. Goswami, VC, BAUT, Banda.
- Panelists** : Dr. Purnendu Biswas, VC, WBUAFS, Kolkata.
: Dr. Parvinder Kaushal, VC, BAU, Ranchi.
: Dr. C. Balchandran, VC, TNVASU, Chennai.
: Dr. P. H. Vataliya, VC, KU, Gandhi Nagar.

The Chairman welcomed the delegates and initiated the discussions. **Dr. A.R. Pathak, VC, JAU, Junagadh** advocated that the application of traditional and modern technologies in livestock, fish, non-traditional farming enterprises and agriculture is the prime need of the hour. He also stated that location specific, need based animal breeding technologies *viz.*, sex semen technology and quality fodder production should be introduced for higher dairy production *vis-a-vis* doubling the farmers' income. A Minimum Sale Price (MSP) for milk should be introduced and this can help reduce the flexibility in the milk prices at national level.



Dr. S. L. Goswami, BAUT, Banda presented his views on **Agricultural Sustainability through Contemporary Live Stock Production in Arid and Semi-Arid zones**. He emphasized on the introduction of livestock in the farming system for a sustainable Agriculture. *Kankrej* is the best suited breed of cattle that can be utilized for genetically improving the local non-descript cattle of Bundelkhand. He also suggested the following strategies for enhancing the livestock productivity:

- Genetic improvement of indigenous non-descript cattle & buffalo by adopting location specific animal breeding policy.

- Availability of quality feed and fodder.
- Adoption of embryo transfer, artificial insemination, *in vitro* fertilization, sexed semen technology, animal cloning technology etc.
- Improving animal health services in Bundelkhand region.
- Value addition and marketing of animal products.



Dr. C. Balchandran VC, TNVASU, Chennai presented his views on *Potential of Traditional and Modern Knowledge in Integration of Animal Agriculture in India*. He stated that the integration of the livestock in Indian farming is the need of the day. Integrated Farming System is extremely important for the efficient management and recycling of available natural resources at the farm level, to generate adequate income and employment for the rural poor and for improving their livelihood (including nutritional security) in a sustainable manner. He proposed the profitable farming system module in an area of 2 acre (Paddy-Napier-*Desmanthus* grass) which can cater to 6 dairy animals and 10 goats. He also suggested other systems like pig-horticulture, duck-fish, and dairy-biogas-vermi-compost. The following constraints were pointed out which may come in the way of establishing a profitable farming systems:

- Heavy investment.
- Non-availability of good quality of germplasm.
- Lack of marketing.
- Lack of technical knowledge among farmers.

The next presentation was delivered by **Dr. P. H. Vataliya VC, KU, Gandhi Nagar** on *Integration of Livestock, Fish Production and Non-Farming Enterprise for Profitable Agriculture-Application of Traditional and Modern Knowledge*. He emphasized on the utilization of bio- wastes from other sectors for maximization of yield of all components of farming system so as to provide a steady and stable income to the farmers. This also aids in the rejuvenation / amelioration of system's productivity, giving rise to agro-ecological equilibrium. He stressed upon avoiding the build-up of insect-pests, diseases and weed population, through natural cropping system management and keeping these at a low level of



intensity. He urged to reduce the use of chemicals including fertilizers and pesticides, thereby providing an option for a healthy and better future for human beings. He listed out the following policy issues for better component productivity of farming system:

- Creation of a database on type, infrastructure, sustainability and economics of IFS
- Developing research modules of farming system under variable systems
- Chalking out a contingent plan to counteract climate threat under IFS
- Generation of a Policy draft for promotion of IFS

Rapporteurs : Dr. H. G. Prakash, Director, AES, CSAUAT, Kanpur
: Dr. S.P. Singh Tyagi, Head, Department of A.H. & Dairying, CSAUAT, Kanpur





Sri Badrivishal, Asst. Director, Directorate of Agriculture Uttar Pradesh talked about *yogic kheti* and the work done by *Bramhkumaris Vishwavidyalay*. **Sri Bala Sahab**, a progressive farmer from Maharashtra informed the gathering about *yogic kheti* being practised by hundred farmers in Maharashtra, producing good quality food.



Panelist Dr. Ashok A. Patel, VC, SDAU, Sardarkrushinagar emphasized on the need for modern agro-techniques and new varieties that can facilitate the farmers to earn more from a limited area. He cited a number of success stories of the farmers and focused on the collective and cooperative marketing and processing infrastructure. **Dr. G. S. Mangat, HOD, GPB, PAU, Ludhiana** in his presentation brought out the utility of both old and modern technologies for sustainable agriculture.

Dr. R. P. Singh, Executive Secretary, IAU recalled the PL 480 agreement and the Green Revolution that

subsequently revolutionized the food production scenario in India. Prior to 1960, organic farming was frequently practiced but during that time India faced Bengal famine and starvation. An amicable fusion of both technologies should be the need of the hour. He pointed towards maintaining the organic carbon through crop residues recycling and application of proper organic farming practices as done in states like Sikkim. The state receives maximum precipitation occurs helps in proper decomposition of the crop residues.



Dr. Pradeep Kr. Sharma, VC, SKUAST, Jammu suggested for a proper management of the technologies-modern or traditional-which is critical for sustainable agriculture. **Dr. N. C. Patel, VC, AAU, Anand** in his remarks emphasized the need for multi-location trial using *yogic kheti* for its validation. The chairman of the session **Dr. K. Ramasamy, VC, TNAU, Coimbatore** in his concluding remarks said that the *yogic kheti* is still in its preliminary phase and needs proper scientific validation. All *Yogic kheti* experiments need to be conducted at different locations under the supervision of agricultural scientists, before their implementation in the field.

Rapporteurs : Dr. Karam Husain, Head, Agronomy, CSAUAT, Kanpur
: Dr. Vijay Kr. Yadav, Incharge Placement Cell, CSAUAT, Kanpur



In the Special Technical Session, discussion and deliberation were made by the all Vice Chancellors and other dignitaries to improve the agricultural education system in agriculture universities. There was a general concern regarding the commercialization of agricultural education leading to the poor quality of education imparted.





Plenary Sessions and Valedictory Function Recommendation

Chairperson : Dr. N. C. Patel, VC, AAU, Anand.

Co-Chairperson : Dr. A. R. Pathak, VC, JAU, Junagadh.

: Dr. K. P. Vishwanatha, VC, MPKV, Ahmednagar, Rahuri.

Chairperson **Dr. N. C. Patel, VC, AAU, Anand**, welcomed all the delegates and invited the rapporteurs of various Technical Sessions to present the proceedings. Session- wise proceedings were presented by **Dr. Poonam Singh, Dean, College of Agriculture, Dr. Ved Ratan, Dean, College of Community Science, Dr. H. G. Prakash, Director, AES and Dr. Karam Husain, Head, Agronomy of CSAUA&T, Kanpur**

Rapporteurs : Dr. K. Shanker, Registrar, CSAUA&T, Kanpur

: Dr. Mukesh Mohan, Professor, Agril. Bio Chemistry, CSAUA&T, Kanpur



Recommendations

Technical Session-I

- In order to strengthen the coordination of Agricultural Universities and various developmental agencies in each state, IAUA recommended that the committee constituted by the Indian Council of Agricultural Research for preparing the strategy paper for doubling farmers' income in each state be entrusted with the responsibility to strengthen the linkages between the state developmental agencies and SAUs for proper implementation of improved technologies, keeping in view the traditional and modern knowledge.
- Considering the key role being played by the Farm Science Centers (KVKs) in different districts of the country, it was resolved that the constraints being faced by these centers need to be adequately addressed and more budget be allocated for proper implementation of various programmes.
- Declining water availability, over-exploitation of natural resources and indiscriminate demolition of traditional water harvesting structures were observed to be the key constraints limiting the crop productivity. It was recommended that modernizing these water-harvesting structures is imperative, along with a need to increase the water use efficiency through Micro Irrigation system and lining of water bodies, so as to fulfill the motto 'per drop more crop'.
- The concern was felt that indiscriminate use of agro chemicals is causing adverse impact on soil health as well as on the health of human beings and livestock. It was recommended that the *Paramparagat Kheti* be given due emphasis and SAUs should develop such integrated modules so as to reduce the use of chemicals and thereby improving the health and reducing the cost of cultivation for better profitability.
- For reducing the cost of cultivation and ensuring timeliness of agricultural operations, it was recommended to promote the Implement/Machinery Banks at Tehsil level for custom hiring, which will benefit the small and marginal farmers particularly.

Technical Session –II

- The house strongly recommended that the old and obsolete varieties, more than 15 years old, should neither be recommend for cultivation in the respective states nor be brought in seed production chain so as to enhance the seed replacement rate and to increase production. This would be more relevant particularly to the water deficient areas like Bundelkhand region, where the productivity is low due to adoption of old varieties and inadequate availability of quality seeds.
- The IAUA appreciated the efforts made by the Government of India to establish the Seed Hubs in the country, which has led to an appreciable increase in productivity, particularly in pulse crops. It was recommended that such Seed Hubs be further strengthened in different crops to enhance the availability of quality seeds of new and improved varieties.



- Considering the large area under Oilseeds and Pulses in Bundelkhand region, it was recommended that the zone may be developed as an Oilseeds and Pulses hub in the Country. Also, development of value addition and processing sectors need to be given special emphasis to increase the income of farmers and to reduce the migration of people from this area.
- It was observed that the area under millets in Bundelkhand region has declined. Hence, it was recommended to promote the cultivation of nutri-millets for nutritional security. Further it was also proposed to discourage the cultivation of more water requiring crops like wheat and sugarcane in the region.

Technical Session –III

- The diversification and adoption of location specific Integrated Farming System modules be introduced in view of the climate change and the need for doubling farmers' income. The low input-responsive technologies be promoted to reduce the cost of cultivation and to enhance farmers' income.
- The problem of stray cattle and wild animals was identified to be of a very serious nature in different regions and it was recommended to create Animal Hostels to provide the herd a place to stay. This will also benefit the owners. Steps should be taken to improve the breeds, their health and nutrition .
- Wild crossing is leading to the production of poor quality animals and therefore, it was recommended to make quality bulls available, to ensure the availability of certified semen and to maintain the genetic characteristics of different indigenous breeds.
- The productivity of milk was low particularly due to inadequate availability of quality feed and fodder to the animals and it was recommended to develop feed and fodder hubs in areas where there is scarcity of quality fodder.

Technical Session –IV

- Organic carbon should be maintained by proper management of crop residue and by adopting organic farming. It was opined that *Yogic kheti* is in its preliminary phase and before adopting it, multi-locational trials & scientific validation claims are essential.

Special Session – Agricultural Education

In order to prevent commercialization of agricultural education and to ensure quality education, the IAUA felt that there is an urgent need to regulate and monitor the agricultural education in the country and therefore, deliberated in detail on this important aspect during the 7th IAUA Regional Meeting of Vice-Chancellors (held at CSAUAT, Kanpur during 29th and 30th August 2018) and resolved as under:

- Minimum Standards for starting new colleges in agriculture and allied subjects (booklet published by the ICAR Education Division-Minimum Requirements for Establishment of New College in

Agriculture and Allied Disciplines) should be followed by the states for giving NOC to start new agricultural institutions.

- SAUs and other agricultural institutions should follow the Fifth Deans Committee's recommendations and the Broad Subject Matter area guidelines for P.G. education, as recommended by the ICAR. This should be monitored by the Education Division of ICAR.
- Agricultural Educational Institutions/ programmes should get the accreditation from the ICAR Accreditation Board. In PG and Doctoral programmes, students/graduates should be admitted only from those agricultural colleges adopting the norms and standards of Agricultural Education prescribed by ICAR, as adopted by SAUs/CAUs.
- In order to inculcate interest towards agriculture among the future generation, agricultural education should form a part of the curriculum from the primary level of education itself. Necessary steps for its implementation should be initiated by the State Governments.

The NOC / approval to start the colleges / programmes by the concerned State Government and accreditation by ICAR, as per norms, are mandatory for quality Agricultural Education in the country in both Private and Government sectors. The Department of Agricultural Research and Education, Govt. of India should take necessary steps in this direction in the overall interest of the agricultural education, research and extension in the country, ultimately to benefit the different stake holders, particularly the farmers of our country.





Technical Programme of 7th IAUA Regional Meeting of Vice Chancellors

Organized by

Chandra Shekhar Azad University of Agriculture & Technology, Kanpur

Sponsored by

Indian Agricultural Universities Association (IAUA)

29-30 August 2018

DETAILED PROGRAMME

Theme : Harnessing Potential of Traditional and Modern Technologies for Sustainable Agriculture

DAY-1 : 29th August, 2018

Venue : Kailash Bhawan

Inaugural Session : 10.00-11.30 Hours

Chief Guest	:	Sri Ram Naik, Hon'ble Governor of Uttar Pradesh
Special Guest	:	Sri Surya PratapShahi, Hon'ble Minister Agric., Agril. Edn. & Res., U.P. Govt.
Guest of Honour	:	1. Dr. Arvind Kumar, VC, RLBCAU, Jhansi (U.P.)
	:	2. Dr. A.K. Singh, DDG (Agril. Extension), ICAR, New Delhi
Chairman	:	Dr. S. Solomon, VC, CSAUAT, Kanpur, (U.P.)
President, IAUA	:	Dr. N.C. Patel, VC, AAU, Anand (Gujarat)
Secretary, IAUA	:	Dr. R. P. Singh, Executive Secretary IAUA

Events		Speakers
▪ Arrival of the Chief Guest and Welcome		
▪ Unveiling of Newly Constructed Statue of Martyr Chandra Shekhar Azad by Chief Guest		
▪ Group Photograph		
▪ National Song		
▪ Lighting of Lamp		
▪ Welcome Address	:	Dr. Sushil Solomon, VC, CSAUAT, Kanpur
▪ Introductory remark by President, IAUA	:	Dr. N. C. Patel, VC, AAU, Anand
▪ Address by Guest of Honour	:	Dr. Arvind Kumar, VC, RLBCAU, Jhansi
		Dr. A. K. Singh, DDG Agril. Ext., ICAR New Delhi
▪ Address by Special Guest	:	Shri. Surya PratapShahi, Hon'ble Minister, Agric, Agril., Edu. & Res., U.P. Govt.
▪ Publication of Book, Souvenir and Felicitation of Scientist & Farmers by	:	Chief Guest Shri. Ram Naik, Hon'ble Governor U.P.
▪ Felicitation of Chief Guest and Guest on Dias by	:	Dr. Sushil Solomon, VC, CSAUAT, Kanpur
▪ Address by Chief Guest	:	Shri. Ram Naik, Hon'ble Governor, U.P.
▪ Vote of Thanks by Executive Secretary, IAUA	:	Dr. R. P. Singh
▪ National Anthem		
▪ High Tea		
Photo session & Tea with Hon'ble Governor	11.30-12.30 Hours	Venue: Gandhi Hall / Vice-Chancellors' Chamber

Venue: Vice-Chancellors' Committee Hall	
Technical Session-I : 12:30-14:00 Hours	
Sub Theme	Integrating Traditional and Modern Knowledge Systems In Improving Agricultural Productivity
Chairperson	Dr. Arvind Kumar, VC, RLBCAU, Jhansi (U.P.)
Co-Chairperson	1. Dr. U.S. Sharma, VC, MPUAT, Udaipur (Rajasthan) 2. Dr. Nazeer Ahmad, Vice-Chancellor, SKUAST, Srinagar (J&K)
Topics	<i>Enhancing outreach of NARS to the society</i> Dr. A.K. Singh, DDG (Agricultural Extension), ICAR, New Delhi <i>Traditional wisdom of water management in Hills</i> Dr. Pradeep Kr. Sharma, VC, SKUAST, Jammu <i>Prospectus of natural and organic farming for sustainability in hilly and mountainous region</i> Dr. A.K. Sarial, VC, CSKHPKV, Palampur
Panelists	1. Dr. Nazeer Ahmed, VC, SKUAST, Srinagar (J&K) 2. Dr. P.D. Juyal, VC, NDVSU, Jabalpur (M.P.) 3. Dr. G.L. Keshwa, VC, AU, Kota (Rajasthan) 4. Dr. Sunil B. Lal, Pro VC, SHUATS, Allahabad(U.P.)
Rapporteurs	1. Dr. Poonam Singh, Dean, College of Agriculture, CSAUAT, Kanpur 2. Dr. Madhu Vajpeyi, Head, Agril. Biochemistry, CSAUAT, Kanpur
Technical Session-II : 15:00-17:00 Hours	
Sub Theme	Stressed Ecosystems and Small Holder's Agriculture: Sustainability Through Good Agricultural Practices.
Chairperson	Dr. N.C. Patel, VC, AAU, Anand (Gujarat)
Co-Chairpersons	1. Dr. Pradeep Kr. Sharma, VC, SKUAST, Jammu (J&K) 2. Dr. A.K. Sarial, VC, CSKHPKV, Palampur (H.P.)
Topics	<i>Issues and challenges before the farmers of Bundelkhand</i> Dr. Arvind Kumar, VC, RLBCAU, Jhansi
Panelists	1. Dr. S.L. Goswami, VC, BUAT, Banda (U.P.) 2. Dr. K. Ramasamy, VC, TNAU, Coimbatore (T.N.) 3. Dr. G.L. Keshwa, VC, AU, Kota (Rajasthan)
Rapporteurs	1. Dr. VedRatan, Dean, College of Community Sciences, CSAUAT, Kanpur 2. Dr. C.L. Maurya, Director, Seed & Farms, CSAUAT, Kanpur
DAY-1 : 30th August, 2018	
Venue: Vice-Chancellors' Committee Hall	
Technical Session-III : 09:30-11:30 Hours	
Sub Theme	Integration of Livestock, Fish Production and Non-Farming Enterprises for Profitable Agriculture: Application of Traditional and Modern Knowledge
Chairperson	Dr. A.R. Pathak, VC, JAU, Junagadh (Gujarat)
Co-Chairpersons	1. Dr. K.P. Vishwanatha, VC, MPKVP, Rahuri(Maharashtra) 2. Dr. S.L. Goswami, VC, BUAT, Banda (U.P.)



Topics	:	<i>Agricultural Sustainability through contemporary live stock production in Arid and Semi-arid Zones</i>
		Dr. S.L. Goswami, VC, BUAT, Banda
		<i>Potential of traditional and modern knowledge in integration of animal agriculture in India</i>
		Dr. C. Balchandran, VC, TNVASU, Chennai
		<i>Integration of livestock, fish production and non-farming enterprise for profitable agriculture: Application of traditional and modern knowledge</i>
		Dr. P.H. Vataliya, VC, KU, Gandhinagar (Gujarat)
Panelists	:	1. Dr. Purnendu Biswas, VC, WBUAFS, Kolkata (W.B.) 2. Dr. Parvinder Kaushal, VC, BAU, Ranchi (Jharkhand) 3. Dr. C. Balchandran, VC, TNVASU, Chennai (T.N.) 4. Dr. P.H. Vataliya, VC, KU, Gandhinagar (Gujarat)
Rapporteurs	:	1. Dr. H.G. Prakash, Director Research, CSAUAT, Kanpur 2. Dr. S.P. Tyagi, Head, Animal Husbandry & Dairying Department, CSAUAT, Kanpur
Technical Session-IV : 12.00- 14.00 Hours		
Sub Theme	:	Empowering Farmers with Modern Agriculture Technology
Chairperson	:	Dr. A.R. Pathak, VC, JAU, Junagadh (Gujarat)
Co-Chairperson	:	1. Dr. K. Ramasamy, VC, TNAU, Coimbatore (T.N.) 2. Prof. K.P. Singh, VC, CCSHAU, Hisar (Haryana)
Topics	:	<i>Yogic Farming for Sustainable Agriculture</i>
		Dr. Sunita T. Pandey, Professor, Agronomy, GB Pant University, Pant Nagar
		<i>Empowering Farmers with modern agriculture technology in view of spiritual approach</i>
		Dr. K.P. Singh, VC, CCSHAU, Hisar
Panelists	:	1. Dr. Ashok A. Patel, VC, SDAU, Sardarkrushinagar (Gujarat) 2. Dr. M.K. Naik, VC, UAHS, Shivamogga (Karnataka) 3. Dr. G.S. Mangat, HOD, GPB, (Nominated) PAU, Ludhiana (Punjab) 4. Dr. Praveen Singh Rathore, VC, SKNAU, Jobner (Rajasthan)
Rapporteurs	:	1. Dr. Karam Hussain, Head, Agronomy Department, CSAUAT, Kanpur 2. Dr. Vijay Kr. Yadav, Incharge Placement Cell, CSAUAT, Kanpur
Plenary Session & Valedictory Function : 15.00-16.00 Hours		
Chairperson	:	Dr. N.C. Patel, VC, AAU, Anand, (Gujarat)
Co-Chairperson	:	1. Dr. A.R. Pathak, VC, JAU, Junagadh (Gujarat) 2. Dr. K.P. Viswanatha, VC, MPKV, Ahmednagar, Rahuri (Maharashtra)
Rapporteurs	:	1. Dr. K. Shanker, Registrar, CSAUAT, Kanpur 2. Dr. Mukesh Mohan, Professor, Bio Chemistry Department, CSAUAT, Kanpur
Presentation of Recommendations of Each Session by Rapporteurs		
High Tea		
Visit	:	National Sugar Institute, Kanpur



C. S. A University of Agriculture and Technology, Kanpur
7th IAUA Regional Meeting of Vice-Chancellors on 29 & 30, August, 2018

List of Vice-Chancellors attended the meeting

1. **Dr. R.P. Singh**, Executive Secretary, IAUA, IG-2, CGIAR Block, National Agricultural Science Universities Association (NASU), New Delhi. Mobile No.: 09811930811
2. **Dr. A. K. Singh**, DDG (Agricultural Extension), ICAR, Krishi Anusandhan Bhawan, New Delhi, Mobile No.: 09582922324
3. **Dr. P.H. Vataliya**, Vice- Chancellor, KU, Gandhinagar. Mobile No.: 07573035101, 07573035105
4. **Dr. U. S. Sharma**, Vice-Chancellor, MPUAT, Udaipur. Mobile No.: 09414158224, 09414170239
5. **Dr. Ashok Kumar Sarial**, Vice-Chancellor, CSK HP Krishi Vishvavidyalaya, Palampur. Mobile No.: 9896313776
6. **Dr. Pradeep Kumar Sharma**, Vice-Chancellor, SKUAST, Jammu. Mobile No.: 09797388333
7. **Dr. S. L. Goswami**, Vice Chancellor, Banda University of Agriculture and Technology, Banda-210001, Uttar Pradesh. Mobile No.: 8004915503, 6387717309
8. **Dr. N. C. Patel**, Vice-Chancellor, Anand Agricultural University, Anand. Mobile No: +91-9998009960
9. **Dr. K. M. Indires**, Vice-Chancellor, University of Horticultural Sciences, Bagalkot. Mobile No: +91-9449872872
10. **Dr. C. Balachandran**, Vice-Chancellor, Tamil Nadu Veterinary and Animal Sciences University, Chennai – 600051. Mobile No: 9444550993
11. **Dr. Nazeer Ahmed**, Vice-Chancellor, SKUAST Kashmir, Shalimar Campus, Srinagar –190025. Mobile No.: 9419000983
12. **Dr. A. R. Pathak**, Vice-Chancellor, Junagadh Agricultural University, Junagadh, Gujarat. Mobile No:- 9879644344
13. **Dr. Parvinder Kaushal**, Vice-Chancellor, Birsa Agricultural University, Jharkhand. Mobile No: 9805185890; 7091497388
14. **Dr. K. P. Vishwanatha**, Vice-Chancellor, Mahatma Phule Krishi Vidyapeeth, Rahuri-413722. Mobile No.: 09423034400
15. **Dr. Ashok A. Patel**, Vice-Chancellor, S.D. Agricultural University, Sardarkrushinagar. Mobile No: 75730 37777
16. **Dr. Prayag Dutt Juyal**, Vice-Chancellor, Nanaji Deshmukh Veterinary Science University, Jabalpur. Mobile No: 9417471917



17. **Dr. Jeet Singh Sandhu**, Vice-Chancellor, Narendra Deva University of Agriculture and Technology, Kumarganj, Faizabad
18. **Dr. Arvind Kumar**, Vice-Chancellor, Rani Lakshmi Bai Central Agricultural University, Gwalior Road, Near Pahuj Dam, Jhansi.
19. **Dr. G. L. Keshwa**, Vice-Chancellor, Agriculture University, Kota. Mobile No: 9414820550
20. **Dr. Praveen Singh Rathore**, Vice-Chancellor, Sri Karan Narendra Agriculture University, Jobner-303329. Mobile No.: 09460657371
21. **Dr. K. P. Singh**, Vice-Chancellor, CCS Haryana Agricultural University, Hisar – 125004. Mobile No.: 8295782950
22. **Dr. K. Ramaswamy**, Vice-Chancellor, Tamil Nadu Agricultural University, Coimbatore – 125004. Mobile No.: 09444065656
23. **Dr. Sushil Solomon**, Vice Chancellor, Chandra Shekhar Azad University of Agriculture & Technology, Kanpur. Mobile No: 9839040995



Dignitaries

24. **Dr. Sunil B. Lal**, Pro- Vice-Chancellor, Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad. Mobile No.: 9838089990 ; 9415309119
25. **Dr. Gurjit Singh Mangat**, HOD, GPB, Nominated for Participation, Punjab Agriculture University, Ludhiana. Mobile No.: 09814516464

List of Committee members of 7th IAUA Regional Meeting Vice-Chancellors held on 29 & 30 August, 2018

PROGRAMME CO-ORDINATOR

Dr. Poonam Singh, Dean, College of Agriculture, CSAUAT, Kanpur

CO-ORDINATOR RESOURCES

Mr. M. M. Mishra, Comptroller, CSAUAT, Kanpur

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- Dr. C. P. Sachan, Prof. SST, CSAUAT, Kanpur
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- Dr. Dhoom Singh, Director Extension, CSAUAT, Kanpur



- Dr. D. R. Singh, DSW, CSAUAT, Kanpur
- Dr. V. K. Singh, Head EXT., CSAUAT, Kanpur
- Dr. Naushad Khan, Assoc. Prof., AGR, CSAUAT, Kanpur

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- Dr. Karam Husain, Head., AGR, CSAUAT, Kanpur
- Dr. Mukesh Mohan, Prof., ABC, CSAUAT, Kanpur
- Dr. R. K. Yadav, Prof., GPB, CSAUAT, Kanpur
- Dr. Ashish Kumar Srivastava, SPO, CSAUAT, Kanpur

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- Dr. Ram Ashish Yadav, Prof. AGR, CSAUAT, Kanpur
- Dr. Kaushal Kumar, Assoc. Prof., SCWM, CSAUAT, Kanpur

VIGILANCE, SECURITY & MEDICAL ASSISTANCE

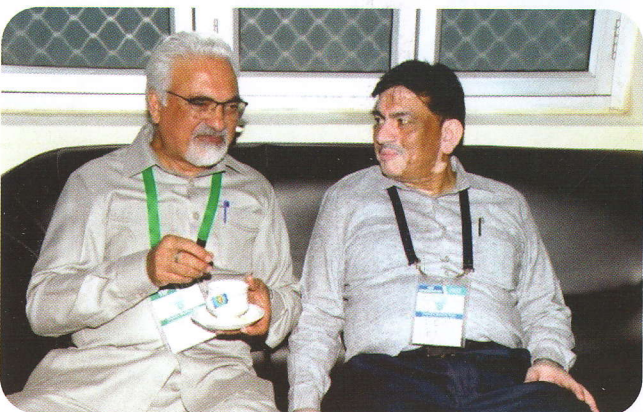
- Dr. R. P. Singh, O/I Security/Head, SCWM, CSAUAT, Kanpur
- Dr. G. S. Parihar, VO/Assoc. Prof. SCWM, CSAUAT, Kanpur
- Mr. Manendra Singh, Estate officer, CSAUAT, Kanpur

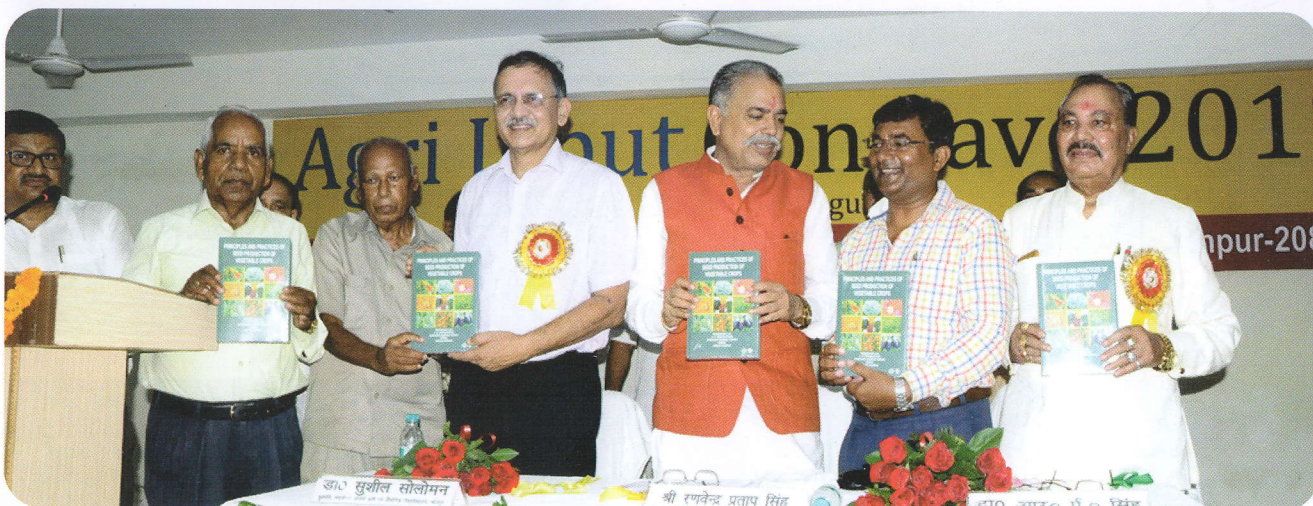
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- Dr. P. K. Upadhyay, Prof. AHD, CSAUAT, Kanpur
- Dr. Archana Singh, Asst. Prof. H.Sc., CSAUAT, Kanpur
- Dr. Vinita Singh, Asst. Prof. H.Sc., CSAUAT, Kanpur
- Dr. Rashmi Singh, Asst. Prof. H.Sc., CSAUAT, Kanpur
- Dr. Mithilesh Verma, Asst. Prof. H.Sc., CSAUAT, Kanpur









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Shri Amit Mohan Prasad, IAS, Principal Secretary, Agriculture, Agricultural Education and Research



- Department of Agriculture, Uttar Pradesh
 - Ganga Seeds
 - Isha Agro India
 - पटेल सीड्स कॉरपोरेशन
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