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Agrisearch with a human touch

Icar mail

Her Excellency, the President of India, Shrimati Pratibha Devisingh Patil addressed the 'International Conference on Innovative Approaches for Agriculture Knowledge Management System: Global Extension Experiences' at Vigyan Bhawan, New Delhi on 9 November 2011

Following is the text of Her Excellency, the President of India's address on the occasion:

"I am happy to inaugurate the International Conference on "Innovative Approaches for Agriculture Knowledge Management System: Global Extension Experiences". An innovative dynamic extension network that facilitates and promotes widespread dissemination of agricultural practices, implements and technology to the farming community, is essential for agricultural growth and prosperity. Agriculture is not only important for our food security, but also for enhancing trade, commerce and business and also for generating employment. I am told that agricultural scientists and professionals from many countries representing several international organizations are attending this Conference. I convey my greetings to all delegates.

For countries like India, agricultural development is critical for their economic growth and, given the high percentage of the population dependent on it, this sector holds an immense capacity to stabilize livelihood structures. Agriculture is an activity of great hustle and bustle. Always one is living in great proximity to nature, with green fields, and thus, many celebrations and festivities are linked with the seasons of the year. Moreover, there is satisfaction that one is working for the subsistence and welfare of the human race. Agriculture is basic to life itself and a noble profession. Without food, it would not be possible to sustain life whether of a rich or a poor person. Hence, food security becomes a primary goal for all countries. Indeed, this Conference is being held at a time when food security issues are attracting heightened concerns around the world. This is on account of increasing global population, growing urbanization; high and volatile food prices and malnutrition due to poverty. Agriculture, in many parts of the world, is faced with low productivity, diminishing returns and increased cost of production.

On the last day of October this year, world population touched the 7 billion mark. Many are asking the question as to the maximum number of human beings that our planet can feed? Various experts would have different answers. Some would say, it is not a question of numbers, but of uneven cultivation patterns, vagaries of the monsoons and access to technologies and there are other viewpoints. However, the one fact that cannot be disputed is that more and more people would have to be fed and land and water are limited resources. Possibilities of their expansion would, at the very best, be limited. So, major breakthroughs in agricultural productivity would remain highly dependent on innovative approaches towards agriculture, on new technologies and new knowledge management systems.

I am glad that discussions at this Conference shall be centred on how knowledge can be reached to the farmer in a useful form. I take this opportunity to mention, that in India, the Indian Council of Agricultural Research and the National Agricultural Research System have played a catalytic role in supporting improvements in agriculture. We also have high expectations from our Agricultural Universities. In this context, I call on everyone, directly connected with agriculture or not, to be more forward looking and think out of the box so that there can be a breakthrough in farming, particularly in rainfed areas, which will ultimately result in streamlining the agricultural sector.

Agriculture has travelled a long distance in India from the Green Revolution of the 1970s and now we are focusing on efforts to create an Evergreen Revolution, so as to bring more stability and sustainability to agricultural production systems. Our endeavour is that in addition to irrigated areas, the agricultural revolution must cover rainfed areas which continue to face the challenges of low productivity and scarcity of water. Small fragmented land holdings, which are unable to take advantage of economies of scale, further add to the limitations. But we have to find a way out.

We need to move away from a scenario of a farmer tilling land for self consumption to a situation where the farmer, along with other stakeholders, works to maximize output. Advice about crop planning that flows from the logic that a farmer functions as an entity within a block level, can in particular help in sustainable food production at the local level. In this, I believe, the digital revolution and mobile technology can be very useful means for transmitting weather forecast, market situation and such other information. Each block can be a nuclei of a "food and fodder bank" where food and fodder, are stored as per requirement to ensure food guarantee for its people and livestock. When this happens, there is much saving on transport costs and of loss during transportation, besides quicker distribution of food grains at local level.

We need to also integrate agriculture with other sectors. Institutional arrangements and policy orientation for a farmer-centric, industry-driven and knowledge-based paradigm, are required for enhanced competitiveness of the agriculture sector. There should be deliberations on evolving suitable models for partnerships between farmers, private sector and the Government in agriculture and rural development. There should be farmer - industrial partnerships in whichever way possible. It can include crop-specific and region-specific models by making farmers associates, shareholders or co-operatives or organizing farmers into primary producer bodies. Agreements of farmers with industrial establishment could cover apart from production, processing, value-addition, storage and marketing, all of which contribute to better price realization. Also, these agreements should, on one hand, safeguard the ownership of land of the farmer and, on the other hand, ensure tenure security during the agreement period for industrial establishment. This would create a conducive environment for establishment for a viable industry-farmer partnership. The role of the Government should be that of a facilitator and advisor.

Knowledge and knowledge management must be leveraged for the benefit of the farming community. Results from agricultural research are sometimes too academic to guide intermediary organizations and extension agencies. If that is the case, the farmers do not gain anything, as the knowledge is not being transferred to them in an understandable and doable form. Therefore, there is a need to start programmes that create or reinforce partnerships between intermediary organizations and research institutes, to produce accessible content in local languages and, at the appropriate technical level, take on board extension programmes and farmer communities.

There are international agricultural research centres around the world, working to find ways of increasing crop yields. There is the International Crop Research Institute for Semi-Arid Tropics (ICRISAT), the International Center for Agricultural Research in the Dry Areas (ICARDA) in Syria - I had the opportunity to visit it - the International Rice Research Institute, International Potato Centre, just to name a few. While frontline research is taking place at all these and more places, the link up with national research centres, institutions and organizations in different countries should be intensified in a manner that innovations are communicated to the farmer in an easily understandable format. Apart from this top down approach, there also is a need to look for innovations made by people in farming communities. Over the past few years I have seen many grassroots innovations. It is important that these innovations can be refined and made marketable, by developing knowledge partnerships. How this can be done should be decided, I think, by Ministry of Agriculture. Traditional knowledge in farming is often good enough to meet several location-specific problems of agricultural practices. How to blend traditional wisdom with modern scientific knowledge is also something that knowledge systems should look into.

Knowledge management strategies should also keep in mind three basic considerations. Firstly, share experiences gained in a project or extension practice to avoid duplication and reduce the repetitive cost of research or practice. Secondly, help farmers interact with scientists and agricultural experts, and explain their practical difficulties at the ground level, to enrich their knowledge base. Thirdly, ensure availability of location-specific agricultural knowledge for application at the right time. Lab to the farmer journey has to be smooth flowing and timely for it to be useful and productive.

I think that the theme of this Conference – Innovative Approaches for Agriculture Knowledge Management System is very meaningful. It is applicable to all stakeholders, including government, universities, researchers, commerce and business, and farmers and labourers as well. I am sure that during the course of this Conference, experts assembled here, will have ample opportunities to discuss the complexities of agricultural knowledge management. I wish this Conference all success."

Paving the way for Green Revolution in pulses

A group of thirty-one Indian scientists from ICAR Institutes, State Agricultural Universities and Banaras Hindu University, led by Prof. Nagendra Kumar Singh from ICAR's National Research Centre on Plant Biotechnology at New Delhi have decoded the genome of pigeonpea, the second most important pulse crop of India. This is the first plant genome sequenced entirely through a network of Indian institutions and it will provide highly valuable resource for variety improvement of pigeonpea.

Average pulse crop productivity in India has remained low at about 650 kg /ha for the last six decades leading to soaring *dal* prices with increasing demands. Lack of high-yielding, disease- and pest-resistant varieties is a major factor for the stagnant pulse productivity. Slow progress in breeding high-yielding Pigeonpea varieties is attributed to dearth of genetic information coupled with large crop duration and intractable pod borer problem and poor utilization of wild germplasm resources. Development of DNA markers tightly linked to important agronomic traits is a prerequisite for undertaking molecular breeding in crops. Availability of the pigeonpea genome sequence will accelerate development of new varieties and hybrids with enhanced productivity by making use of germplasm resources, in a way similar to the rice genome experience. These markers will be useful for DNA fingerprinting and diversity analysis of pigeonpea germplasm and molecular breeding applications.

Shri Sharad Pawar appreciated ICAR stall in IITF 2011

The Union Minister for Agriculture and Food Processing Industries, Shri Sharad Pawar appreciated the ICAR Stall, at the Ministry of Agriculture Pavilion, during the 31st India International Trade Fair 2011 at New Delhi on 27 November 2011.

This year, the theme of agricultural exhibition was 'Small is Bountiful.' The ICAR along with its institutes namely, Indian Agricultural Research Institute (New Delhi), Directorate of Maize Research (New Delhi), Central Institute of Agricultural Engineering (Bhopal), Central Institute for Research on Goats (Mathura), Central Institute of Post Harvest Engineering and Technology (Ludhiana), Directorate of Rapeseed Mustard Research (Bharatpur) and Central Potato Research Station (Modipuram) showcased the new varieties and technologies of their respective institutes.

Dr S Ayyappan, Secretary, DARE and Director General, ICAR, appreciated the display of various institutes in IITF 2011. Dr K D Kokate, DDG(Extension) also visited the Agriculture Pavilion.

The demonstration of crop DNA finger printing and publications of Council were other main attractions. The progressive farmers and entrepreneurs trained by ICAR institutes displayed their machine, products, etc. and shared the experiences with visitors in the fair. National Agricultural Science Museum, New Delhi also participated in the exhibition for awareness and wider publicity of the museum among visitors.

Dear All
please submit topical news related to agriculture to:
Project Director
e-mail: tptrivedi@icar.org.in

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