I am pleased to know that the Indian Council of Agricultural Research (ICAR) is organizing its Annual Awards Ceremony, 2012 on 16th July 2012. I extend my heartiest congratulations to all the scientists, farmers and journalists who have excelled in their chosen field of work and have been awarded for their outstanding contributions towards agricultural research, education, extension and productions. I am confident that the recognition will lead to enhanced zeal and creative work by the awardees as well as enthuse and encourage others to strive harder for greater accomplishments.

2nd July, 2012
New Delhi

(SHARAD PAWAR)
I am pleased to know that the Indian Council of Agricultural Research (ICAR) is organizing its Annual Awards Ceremony, 2012 on 16th July 2012. I extend my heartiest congratulations to all the award winners for their significant contributions to agricultural research and development in the country.

Application of emerging technologies and innovations at the farm level through effective strategies assumes special relevance in today’s context. I am sure, our agricultural scientists and farmers will contribute their best in this endeavour. I extend my best wishes to the award winners, their families and to all others who are part of the National Agricultural Research System.

2nd July 2012
New Delhi
It is heartening to know that the Indian Council of Agricultural Research (ICAR) is keeping the tradition of organizing its Annual Awards Ceremony on the 16th Day of July, every year. I extend my heartiest congratulations to all the award winners of 2012 for their significant contributions to agricultural research and development in the country.

Application of science & technology at the farm level through effective strategies assumes special relevance in today’s context. I hope that the latest research & technological developments shall reach from lab to fields in the quickest time possible. I extend my best wishes not only to the award winners but also to their families and to all others who are part of the National Agricultural Research System.

2nd July 2012
New Delhi
Recognition of excellence through an appropriate incentive and reward system in an organization provides its employees opportunities for productive, prompt and improves proficient performances. The Indian Council of Agricultural Research has established a system to recognize the outstanding performances by giving awards to the institutions, scientists, farmers, teachers, extension workers and students. The awards besides acknowledging merit and accomplishments bring about healthy competition among individuals, groups and institutions to attain yet higher levels of excellence in their respective field. It is a matter of pleasure to see that ICAR Awards 2011 have eighty three awardees under sixteen different categories. These comprise three Institutions, one AICRP, nine KVKs, nine Farmers, one Journalist, four Teachers and fifty six Scientists. Among fifty six scientists there are five women scientists.

Sardar Patel Best Institution Award has gone to the National Bureau of Fish Genetic Resources, Lucknow (UP), in the small institute category, Central Potato Research Institute (H.P.) in the large institute category, Tamil Nadu Veterinary and Animal Science University in the agricultural universities and deemed universities group.
Nine KVKs, one at national level and eight at Zonal levels have been selected for the awards. The KVK awards are given during National KVK Conference.

Chaudhary Devi Lal Outstanding AICRP Award has been bagged by All-India Co-ordinated Wheat & Barley Improvement Project, Directorate of Wheat Research Project, Karnal, Haryana.

Three scientists one each from Crop and Horticultural Sciences, NRM and Agricultural Engineering and Animal and Fisheries Sciences received the Rafi Ahmad Kidwai Award 2011.

Lal Bahadur Shastri Young Scientist Award was won by four scientists one each in four different disciplines.

Jawaharlal Nehru Awards for high quality Ph.D. thesis research work are being given to 14 scholars, of which two are young women scientists. There are two awardees for Panjabrao Deshmukh Woman Agricultural Scientist Award. The Vasantrao Naik Award for Research Applications in Dryland Agriculture for 2011 has gone to the research team from Dryland Farming Research Station, Arjia, Bhilwara, (Rajasthan).

The Jagjivan Ram Abhinav Kisan Puraskar has been awarded to one farmer at National Level. Seven farmers, one each from seven zones, have been selected for zonal award. The N.G. Ranga Award for Diversified Agriculture has been awarded to a farmer from Punjab.
The Fakhruddin Ali Ahmed Award for Outstanding Agricultural Research in Tribal Areas has been bagged by two teams of the Scientists one each from Arunachal Pradesh and Andaman regions. The ICAR Multidisciplinary Team Research Award has been received by teams of Meghalaya and Madhya Pradesh. The team from Meghalaya studied the Hill Ecosystem whereas the team from Madhya Pradesh developed the new wheat varieties.

The authors of one technical books in Hindi, in Crop & Horticultural Sciences have been selected for Dr. Rajendra Prasad Puraskar. Four teachers have been selected for the Bharat Ratna Dr. C. Subramaniam Award.

One journalist in electronic media won the Chaudhary Charan Singh Award for excellence in journalism and two scientists have bestowed with Swami Sahajanand Saraswati Award for extension work.

I convey my heartiest congratulations to all the award winners and their family members. It is hoped that these awards will encourage them to achieve new heights in future and also inspire their colleagues to pursue excellence. The Council sincerely thanks Chairpersons and Members of all the Judging Committees who finalized the award winners after a careful evaluation.

4th July, 2012
New Delhi

(S. AYYAPPAN)
Preface

The ICAR recognizes the extraordinary contributions of scientists, innovative farmers, students, teachers, women scientists, journalists, institutions, AICRP, extension scientist and technical books in Hindi every year by giving away various awards. The first of these awards was given in 1956. With the passage of time, new awards were added, the eligibility criteria and guidelines thereof were suited to that period. The guidelines of these awards were revisited in 2010 and approved in the Governing Body in its 219th meeting held on 4th January 2011. During processing of ICAR Awards 2010, certain improvements were suggested by the Judging Committees. Therefore, the requirements of presentations by awardees of Choudhary Devi Lal Award, Swami Sahajanand Award and Dr. Rajendra Prasad Award were left off for ICAR Awards 2011; and four research areas have been designated for Lal Bahadur Shastri Award. Approval for these was obtained in the 222nd meeting of GB held on 4th Oct. 2011.

Overall, 517 applications/nominations were received for 18 different ICAR Awards 2011. The procedure for selecting the awardees and demanded a meticulous planning and diligent efforts. The applicant’s documents were scrutinized and classified either subject area or geographical zone wise as per requirement of the awards. These were sent to Judging Committee members and chairpersons well in advance. The committees were chaired by an eminent scientist of national stature and consisted of 3-5 experts in different discipline and from different parts of the country. The 17 Judging Committee met in the months of April, May and June for finalizing the awards. In all Judging Committee meetings took place for 20 days. The significant contributions of the awardees are compiled in the book entitled CITATIONS.
The contributions of KVK would be presented in Annual conference of KVK. I hope the achievements presented in the book would not only bring a sense of satisfaction and honour in the awardees but would apprise the new and emerging areas of work to scientists, farmers and institutions and encourage them to participate and compete. I express sincere gratitude to Dr. S.Ayyappan, Secretary DARE and DG, ICAR for continuous encouragement and guidance and to Shri R.K.Mehrishi, Special Secretary DARE and Secretary ICAR for useful suggestions and guidance. The efforts made by staff of Award & Coordination Cell in scrutinizing the applications, organizing the meetings and award function deserve appreciation.

(Ravindra Kumar)
Assistant Director General Coordination
ICAR Award Ceremony 2012

- Sardar Patel Outstanding ICAR Institution Award 2011
- Chaudhary Devi Lal Outstanding All India Coordinated Research Project Award 2011
- Rafi Ahmed Kidwai Award for Outstanding Research in Agricultural Sciences 2010
- Lal Bahadur Shastri Outstanding Young Scientist Award 2011
- Panjabrao Deshmukh Outstanding Woman Scientist Award 2011
- Bharat Ratna Dr C. Subramaniam Award for Outstanding Teachers 2011
- ICAR Awards for Outstanding Interdisciplinary Team Research in Agriculture and Allied Sciences 2009–2010
- Fakhruddin Ali Ahmed Award for Outstanding Research in Tribal Farming System 2011
- Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research in Agricultural and Allied Sciences 2011
- Jagjivan Ram Abhinav Kisan Puraskar/Jagjivan Ram Innovative Farmer Award (National/Zonal) 2011
- N.G. Ranga Farmer Award for Diversified Agriculture 2011
- Dr Rajendra Prasad Puraskar for Technical Books in Hindi in Agricultural and Allied Sciences 2011 43
- Vasantrao Naik Award for Research Applications in Dryland Farming System 2011 45
- Swami Sahajanand Saraswati Outstanding Extension Scientist Award 2011 47
- Chaudhary Charan Singh Award for Excellence in Journalism in Agricultural Research and Development 2011 49
THE Indian Council of Agricultural Research (ICAR) was set up on 16th July, 1929 on the recommendations of the Royal Commission on Agriculture. It was reorganized in 1965 and 1973. Over the years it has developed a large research and training infrastructure and operates through 49 Research Institutes, 6 National Bureaux, 25 Project Directorates, 17 National Research Centres, 32 State Agricultural Universities, and one Central Agricultural University.

In order to recognize outstanding performance by the ICAR institutes, DUs of ICAR, CAU and State Agricultural Universities, three Awards of ₹ 10,00,000 lakh each, are given to two ICAR Institutes/NRC/Project Directorates/National Bureaus (one to large and other to small) and one to State Agricultural University/DUs/CAU. The award has been named after Sardar Vallabhbhai Patel (1875–1950), the first Deputy Prime Minister and Home Minister of India.

For the awards for the three categories, viz. (i) ICAR’s National Institutes/Large Institutes (scientific cadre strength more than 60), (ii) ICAR’s NRCs/Project Directorates etc./Small Institutes, (scientific cadre strength up to 60), and (iii) State Agricultural Universities/DUs/CAU. Fourteen (14) applications were received in response to the open advertisement, the recipient of awards are:
Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), Chennai is a premier university of global repute. TANUVAS has developed and released eight improved sheep, pig and avinan varieties, 27 vaccines and diagnostic kits for prevalent, emerging and reemerging economically important diseases affecting livestock, poultry and fisheries, 21 post production technologies and more than 100 livestock, poultry and fish farm management technologies. TANUVAS has the unique distinction of having developed e-Courses for two undergraduate degree programmes-BVSc &AH and BFSc, the first of its kind in the country. TANUVAS has, through its state wide extension network, been contributing to skill enhancement and human resource development and promptly responding to the livestock, poultry and fish farmers’ needs to optimally accomplish their farming activities to reap the potential benefits and ensure reliable rural employment and income.
Central Potato Research Institute, played pioneering role in transforming potato from the temperate to a sub-tropical crop. The institute developed a cafeteria of high yielding potato cultivars along with all the supporting agro-techniques for growing potato under sub-tropical agro-climate. The institute also produces very high quality breeder’s seed under the national seed production scheme that ensured better crop health in the country. The institute also participated in a global effort for potato genome sequencing and deciphered the complete genome sequence that will be useful for discovering new genes and biomarkers for conferring unique agronomic traits. Development of processing varieties and related technologies spur 25% annual growth in potato processing industry. The elevated temperature storage technology developed by the Institute has been widely adopted that led to round the year availability of raw material for processing industry and also resulted in substantial energy saving.
The National Bureau of Fish Genetic Resources (NBFGR), has emerged as a Centre of Excellence and has made significant contributions in the development of databases on Fish Diversity of India, research on molecular genetic characterization of several endangered and commercially important species. NBFGR has established new descriptions/records in the fish diversity list through extensive explorations and inventory in the aquatic areas. The developments of various molecular markers and genomic resources to document the genetic diversity at inter-and intra-specific levels have been the hallmark of research in recent years. The Bureau has initiated a programme on DNA Barcoding of Indian marine and freshwater fish species for the first time in India. The pilot scale in-situ conservation, development of sperm cryopreservation protocols for 28 fish species, genotoxicity assays, cell lines and monoclonal antibodies against fish IgM and diagnostic capability for several OIE-listed pathogens have been the other notable achievements.
The Council has several All India Coordinated Research Projects (AICRP). In order to recognize the outstanding performance of the AICRP and its cooperating centres for enhancement of agricultural productivity, one award of ₹ 300,000 (₹ 2.0 lakh for main coordinating unit and ₹ 1.0 lakh for the best centre) is given to the All India Coordinated Research Project. The award has been named after Chaudhary Devi Lal (1914–2001), who had been the Deputy Prime Minister and Agriculture Minister of India. In all eight (08) applications were received in response to the open advertisement. Winner with its achievement is given on next page:
All India Coordinated Wheat and Barley Improvement Program (AICW&BIP), led by Directorate of Wheat Research, released, 382 wheat and 80 barley varieties for six wheat growing zones till date. During the last five years, 56 wheat and 10 barley varieties have been released. In addition, more than 100 wheat and barley genetic stocks for unique traits have been developed and registered with NBPGR. AICW&BIP has been instrumental in the development and popularization of resource conservation and cost effective technologies like zero tillage. Supported by the upstream lead research networks with national and international institutes and downstream setups for breeder seed production, frontline demonstrations and training, AICW&BIP has played a key role in achieving food security for country.
THE Council has instituted the Rafi Ahmed Kidwai Award for Outstanding Research in Agricultural Sciences in order to recognize outstanding research in agricultural and allied sciences and provide incentives for excellence in agricultural research. This award is to be given to agricultural scientists for outstanding contribution in specified areas defined as: (1) Crop and Horticultural Science, (2) NRM and Agricultural Engineering, (3) Animal and Fisheries Sciences, and (4) Social Sciences. A total of four awards are assigned one each in the above areas. Each award consists of ₹ 500,000 in cash. All Indian scientists engaged in agricultural research and overseas Indian scientists working in the areas relevant to Indian agriculture are eligible for these awards. The award has been named after Rafi Ahmed Kidwai (1894–1954) who was the president of ICAR from 1952 to 1954. A total of sixty three (63) applications were received in response to the open advertisement and the winners with their contributions are:
DR T.R. SHARMA has been engaged in molecular plant pathology and plant genomics. His most significant contributions include, mapping, cloning & functional validation of Rice blast (*Magnaporthe oryzae*) resistance gene *Pi-kh* (*Pi54*) from a unique source, which activates complex defense mechanism. He has also successfully mapped a novel QTL *qSBR11-1*, which has been transferred to Basmati type varieties for imparting resistance to sheath blight. In addition, he succeeded in identifying 786 disease resistance and 167 defense response genes in rice genome for future mining. Dr Sharma has also developed robust DNA makers tightly linked to *Pi-kh* (*Pi54*) which are being used extensively to improve rice varieties.
Dr S.N. Jha is pioneer in nondestructive methods of quality evaluation of foods and post-harvest technology of *makbana* in India. His major contributions are: development of processing technology for *makbana*, nondestructive methods for prediction of maturity and sweetness of mango, freshness index of eggplant, detection of adulterants in milk and fruit juices, tomato storage technology for hot and humid atmosphere, improved evaporative cooled storage structure and ventilated container for short term storage and long distance transport of horticultural produce respectively. Dr Jha has evolved new vistas of quantitative/precision post-harvest technology of fruits in general and food quality and safety in particular.

Dr Asim K. Pal has established the cellular and molecular mechanisms of the acquired thermo-tolerance phenomena for physiological adaptation and homeostasis of fishes to facilitate the preparedness in the context of global warming and climatic changes. His research on e-beam radiation for removing anti-nutritional factors from feed ingredients demonstrated a promising way of natural resource management to meet the demand of aquafeed. Dr Pal also demonstrated the use of novel nutraceuticals for mitigation of stress caused due to multiple stressors. His concept on mapping radio isotopes in the aquatic ecosystem has translated into a mission mode mega-research programme on aquatic radioecology.
The council has instituted the Lal Bahadur Shastri Outstanding Young Scientist Award in order to recognize the talented young scientists who have shown extraordinary originality and dedication in their research programmes. Four individual awards are to be given annually across the disciplines, limited to only one award in any discipline. An individual award of ₹ 100,000 in cash and a challenge project for three years with budgetary provision of ₹ 10.0 lakh per year + ₹ 5.0 lakh for foreign training (3 months). The challenge project and foreign training will be administered/monitored by Division of Agricultural Education at ICAR, Headquarters. All young scientists who possess a doctoral degree and are below 40 years of age, and hold a regular teaching, research, extension education job in the ICAR-SAU system of institutions and engaged in research in agricultural and allied sciences for at least five years continuously are eligible for consideration. The award has been named after Lal Bahadur Shastri (1904–1966) who was prime minister of India and gave the slogan ‘Jai Jawan Jai Kisan’. A total of forty four (44) applications were received in response to the open advertisement and the winners are:
DR RAJIV RATHOUR, from HP Agricultural University, Palampur has been working on rice blast host-pathogen system since 2001 with major focus on management of blast disease through host plant resistance. He has studied the race distribution of rice blast populations of north-western Himalayas and identified various combinations of blast resistance genes for deployment in north-western states. He has identified and mapped two new blast resistance genes, including one from wild rice, and developed pyramid lines harbouring multiple blast resistance genes in the genetic background of elite cultivars ‘HPU741 and ‘BPT5204’. The pyramid lines developed by him are also being utilized as donors of blast resistance in national basmati rice improvement programmes. He is also credited with the mapping of a new powdery mildew resistance gene ‘er2’ which confers unique hypersensitive resistance compared to earlier known resistance gene ‘efl’.
DR DILEEP KUMAR PANDA studied the impacts of climate change and variability on natural resources of different regions in India. He showed that the rainfall extremes have increased in conjunction with a simultaneous increase in the drought indices particularly in the active months of July and August. He found that the groundwater levels exhibited pronounced decline in the states of Odisha and Gujarat and suggested that the extreme wet events had caused more runoff losses, while decreases in moderate rainfall and increases in dry spell had led to a reduction of recharge in the predominant hard rock aquifer. Dr Panda developed tools and techniques to assess and sustain the overexploited aquifers and showed that quantitative methods to precisely estimate the soil organic storage could be used for the future carbon sequestration strategies under climate change context.
DR MOHAN MONDAL developed the technologies to address the issues related to late maturity, silent estrus, long-postpartum estrus, calf mortality due to mismothering, estrus synchronization and semen cryopreservation in Mithun. Innovative ideas like use of growth hormone (GH) as biological marker for selection of desired animal, for showing possibility of cryopreservation of epididymal spermatozoa from dead mithun bulls for conservation of this rare species, and for the use of simple intranasal spray of oxytocin for establishing emotional attachment of mother and neonate in mithun. He identified the non-invasive biological marker for selection of developmentally competent oocytes in bovine.

DR SOUVIK GHOSH mobilized user groups for participatory water management under different water situations, studied water user group dynamics, and assessed impact of farmers’ management of irrigation systems with conceptualization and implementation of innovative methodologies. Mobilization and study of water user groups in major, medium and minor irrigation systems, watersheds and coastal waterlogged areas in Odisha was accomplished through development of group dynamics and farmers’ participation indices, application of fuzzy set theory, formulation of impact evaluation indicators and institutional analyses framework. Participatory water management through group approach has successfully put the technologies into practice with positive impact on both rainfed and irrigated agro-eco systems.
IN order to recognize and encourage the women agricultural scientists for their outstanding research contribution in agriculture and allied sciences, the ICAR has constituted Panjabrao Deshmukh Outstanding Woman Scientist Award. Two annual awards are meant exclusively for outstanding women agricultural scientists. The award consists of ₹ 100,000 in cash with provision of equal amount of ₹ 1 lakh for motivating Women Scientists and female students across the country including travel within a year of receiving the award. All women scientists engaged in research in agricultural and allied subjects / extension in a recognized institutions are eligible. The awards are exclusively meant for individual women scientists. The award has been named after Panjabrao Deshmukh (1898–1965) who was Minister of Agriculture in the first cabinet of Pt. Nehru in 1952. Twenty (20) applications were received in response to the open advertisement. The awardees are:
Dr ANURADHA AGRAWAL, developed and applied cost-effective *in vitro* conservation and cryopreservation protocols for medium-and long-term conservation of vegetatively propagated species, especially of banana and spice crops. She has been instrumental in establishing and managing nearly 780 accessions of these crops at the *in vitro* Genebank of the National Bureau of Plant Genetic Resources. The low-cost *in vitro* conservation for diverse germplasm of banana, ginger and turmeric and cryopreservation technologies for banana are being applied to a large array of genotypes, after confirming the genetic stability of the conserved germplasm using morphological and molecular markers. Based on the research carried out by Dr Agrawal, cryobanking of banana germplasm is being carried out for the first time in India.

Dr VIJAYAKUMARI Standardized the protocols of micrografting and micro budding for the production and fast multiplication of disease free planting material. She established and protected the field foundation blocks consisting of tested healthy nucleus stock and distributed disease free plants (267,999 nos.) to the growers/nursery men of Maharashtra, Madhya Pradesh, Punjab, Haryana, Rajasthan, Sikkim, Odisha, Tamil Nadu, Kerala, Karnataka and Andhra Pradesh, and different state universities and contributed towards resource generation of ₹ 80,01,815 to the centre as project leader and associate. This technology has a great promise in bridging the gap between the average and potential productivity.
To provide recognition to outstanding teachers, incentive for excellence in teaching and to promote quality teaching, ICAR constituted Bharat Ratna Dr C. Subramaniam Award for Outstanding Teachers. These awards are meant for individual teachers independently offering a full course or part of an integrated course. An individual award consists of 100,000 in cash + travel grant of 1.0 lakh to promote innovation in teaching across the country including travel and a citation. A total of four such awards one each in the Crop/Horticultural Sciences, Natural Resource Management/Agril. Engineering, Animal/Fisheries Sciences and Social Sciences have been assigned. The award has been named after Bharat Ratna Dr C. Subramaniam (1910–2000) who ushered in an era of self-sufficiency in food production. Eighteen (18) applications were received in response to an open advertisement and the selected awardees are:
As a UG teacher and Co-ordinator, Dr S. Kumarasamy provided the best ambience in practical/theory classes for high level of learning. He used Technology enhanced mode of teaching through power point presentations and a lecture in interactive mode. In a 55 minutes lecture, he handled for 40 minutes for lecture and 15 minutes was allotted exclusively for interaction. This has led students to move closely with teacher and the doubts were clarified, by which the students become more assertive, confident, optimistic and highly motivated. In the last five years, he handled 14 courses as course teacher and 16 as course associate. Only in two courses failure was less than 2%. He inspired the students to learn the subject holistically without any pessimistic mode. He developed two numbers of CD lessons and hosted the web notes for the same (http://www.tnau.ac.in) and for the past five years conducting online examination. He routinely conducted mock examinations to create confidence among students and inspire them to score high marks in the finals.
DR T.B.S. RAJPUT is serving as a Faculty of Agricultural Engineering at Post Graduate School of Indian Agricultural Research Institute, New Delhi, for over thirty years and has guided thirteen PhD and six M.Sc. Students. Dr Rajput has helped in improving Post Gradate syllabus of Soil and Water Conservation engineering at national level through ICAR committees. He has served as member of Board of studies of Agricultural Engineering and Water Science and Technology disciplines at IARI, syllabus improvement committee CTAE Udaipur, School board of Agriculture, IGNOU and External Faculty of Agriculture, BHU, Varanasi. He has developed a new course Irrigation Engineering Fundamentals and has modified Irrigation System Design course twice. Dr Rajput has developed huge teaching material including 9 books, 8 manuals, 9 computer softwares besides developing large infrastructure of well equipped laboratory, state of art class rooms and field facility for effective teaching.
Dr. S.V.S. Malik has 19 years of teaching experience and taught 29 courses. He not only took the scheduled lectures, but also interacted with students, beyond the scheduled timings. He always tried to pass on the latest information gathered from the recent journals. He switched to electronic means of teaching with the aim to save on time and to have better communication with students. He has guided 16 students (6 Ph.D. and 10 M.VSc.).

Dr. V.K. Bhatia has more than 36 years of teaching experience at post-graduate level for teaching variety of courses to students of varying backgrounds. While teaching he always kept in mind the type of students (In-service or regular), the level or educational background of students, the language of their understanding, and the subject including advanced area of specialization of teaching. He also ensured students attentiveness by way of subjecting them to continuous quizzing and timely evaluation in terms of surprise quizzes, mid-term and other examinations.
To give incentives for outstanding interdisciplinary research in agriculture and allied sciences in India and to recognize teams of research workers who have set high standards for co-operative endeavour in Agriculture, Animal Husbandry, Fisheries and Allied Sciences, the ICAR has instituted ICAR Awards for Outstanding Interdisciplinary Team Research in Agriculture and Allied Sciences. There are 4 awards of ₹ 500,000 each given once in two years, based on the last 5 years continuous research of applied type in four different areas.

For the Biennium 2009–2010 thirty five (35) applications were received and the winners are:
The team effort under the leadership of Dr A.N. Mishra, culminated in the release of seven improved wheat varieties including four durum and three bread wheat ones for different cultivation conditions. All these varieties combine high yield potential with heat tolerance, water-use efficiency, and strong rust resistance with desired quality traits, and hence, have been contributing in enhancing the production, productivity and Profitability. Interdisciplinary basic studies have provided a number of new insights into rust resistance and crop physiology in both durum and bread wheats including genetic diversity for rust resistance, closeness of linkage between phenotypic markers and rust resistance genes, and morpho-physiological traits for heat and drought tolerance. The other members of the team are Dr H.N. Pandey, Dr P.K. Verma, Dr S.V. Sai Prasad, Dr M.Y. Samdur, Dr A. K. Singh, Dr S.R. Kantwa.
A multidisciplinary team of scientists at the ICAR Research Complex for NEH Region, Umiam, Meghalaya worked on ‘Developing Integrated Soil, Water and Crop Management Technology through Farming System Approach for sustainable productivity and their dissemination in Hill ecosystems of North East India’. Through the efforts of the team it was possible to reach 15,000 farmers across NE region through direct demonstration of improved resource management technology (zero tillage, residue management, SRI, ICM, INM, organic farming, composting), acid soil amelioration (liming, acid tolerant varieties), soil and water conservation integrated farming system and human resource development through training and awareness programme of trainers, extension persons and farms in the fragile ecosystem of North East India. All these resource conserving technologies increased productivity by 25–30%, minimized soil loss and run-off by 50% and increased farmers’ income substantially and maintained/improved soil health. The members of the team are Dr G.C. Munda, Dr A.S. Panwar, Dr P.K. Ghosh, Dr D.P. Patel, Dr Anup Das, Dr B.U. Choudhury, Dr A.K. Tripathi, Dr S.V. Ngachan.
ICAR instituted Fakruddin Ali Ahmed Award for Outstanding Research in Tribal Farming Systems primarily for any person or team (with two or three associates, if any) engaged in applied research and its applications in tribal areas of the country aimed at improving the biological resources and livelihoods or in original work directly applicable to tribal farming system. Two awards of the value of ₹ 100,000 in cash and citation + provision of equal amount for study on related subject in geographical area for a year. The award has been named after Fakruddin Ali Ahmed (1905–1977) who was president of ICAR society 1971 to 1974. Ten (10) applications were received in response to the open advertisement and the winners with their contributions are:
Dr. Samiran Bandyopadhyay and associates carried out an outstanding work for the development of profitable and sustainable yak farming to revamp and deteriorating agro-economy in snow-capped, mountainous terrains of the Himalaya. They successfully developed novel therapeutic, diagnostic and prophylactic modalities against fatal diseases, formulated proper nutritional strategies and applied selective breeding that substantially enhanced yak productivity (milk and meat) manifold. The group developed and improvised a number of useful and handy technologies which were further embraced by the yak herdsmen. ‘Cure conjunctivitis’—an herbal eye drop against infections (pink eye) in yak, ‘Healing touch’—a poly-herbal wound healer and fly repellant and Complete Feed Block were popularized among yak herdsmen. They also employed the nested PCR technique for detection of Bovine Herpes Virus-1. The team includes Dr K.K. Baruah, Dr T.K. Biswas.
IN the aftermath of the Earthquake-Tsunami 2004, Dr D.R. Singh and team developed technologies for Morinda such as cultivation of Morinda in sea water challenged lands, intercropping of Morinda in coconut and arecanut plantations and Good Horticultural practices for Morinda which were well accepted among islands farmers. The bioprospecting and promotion of Morinda facilitated establishment of centres of private industries in islands which are benefiting tribal and settler farmers of islands. Identification of Morinda as feed source and development of protocols for value-added products from underutilized fruits helped women empowerment in islands. The team includes Dr Shrawan Singh, Dr Jai Sunder, Dr Subhash Chand.
THE ICAR instituted in January, 1969, the Jawaharlal Nehru Awards for ‘Post-graduate Agricultural Research’ based on Ph.D. theses of the young scientists as an incentive for high-quality fundamental or applied research among post-graduate students in India and to recognize outstanding research work done by them in different fields of agricultural research including Animal Husbandry, Fisheries, Social Science, etc. There are 18 awards with a cash prize of ₹ 50,000 each with a Gold plated silver medal. The award has been named after Pt. Jawaharlal Nehru (1889–1964), the first Prime Minister of India. A total of eighty two (82) applications were received for consideration in different discipline and 14 were selected for the award. Out of 14 awardees, 4 obtained degree outside NARS, 2 from Agricultural University and 8 from ICAR Institutes. The awardees and their contributions are given in following pages:
DR R. NAGARAJA REDDY developed the Recombinant Inbred Line (RIL) population of 500 individuals in order to identify QTLs for staygreen and other agronomically important traits in sorghum using a cross between M35-1 and B35 parents. A new sorghum genetic map comprising with 211 markers was constructed. The QTL/markers identified for the staygreen and other agronomic traits can be used for improving the rabi sorghum genotypes for drought tolerance. He obtained his Ph.D from Osmania University, Hyderabad, India.

DR S.K. PARIDA developed and designed 2,276 novel genic and genomic microsatellite markers for large and complex polyploid sugarcane genome. He identified an insertion–Deletion marker in the promoter sequence of sucrose synthase-2 gene and demonstrated its significance in differentiating the high and low sugar containing commercial Indian sugarcane varieties. Dr Parida obtained his Ph.D degree from Jamia Hamdard University, Hamdard Nagar, New Delhi.
Dr Asit Kumar Mandal
Scientist (Plant Pathology)
DSR
Mau-275 101

Crop Protection

Dr Babasaheb Bhaskar
Scientist (Agril.Entomology)
NIASM
Pune-413 115

Crop Protection

Dr Asit Kumar Mandal studied the stem rot caused by Sclerotinia sclerotiorum (Lib) de Bary in chickpea and observed four non-sclerotia forming isolates were reported which is the first evidence in S. sclerotiorum. Dr Mandal determined the genetic diversity of 24 isolates of S. sclerotiorum representing 10 different states of India. He also developed bio-agent based ecofriendly management strategy of stem rot of chickpea. Dr Mandal obtained his Ph.D degree from Indian Agricultural Research Institute, New Delhi.

Dr Babasaheb Bhaskar identified key host/prey stage that contributed considerably towards development and progeny fitness of the parasitoids and predators of the mileybug, which can best be exploited for laboratory mass production of good quality bioagents. This work has immense application in pest-control management programme for an invasive mealybug species Phenacoccus solenopsis. Dr Bhaskar obtained his Ph.D degree from Indian Agricultural Research Institute, New Delhi.
Dr Manoj Kumar studied the simulated levels of atmospheric CO₂ and temperature as projected to prevail over wheat growing regions of subtropical India by around 2050 and predicted that wheat yield would reduce by 17% with concurrent decrease in nutritional quality and increase in phosphorus requirement. The work underlines the need of developing phosphorus efficient nutrient management practices and nutritionally enriched crop cultivars in climate change. Dr Manoj Kumar obtained his Ph.D degree from Indian Agricultural Research Institute, New Delhi.

Dr Tanmay Kumar Koley evaluated twelve ber cultivars which are potential genotypes having high polyphenolics with strong antioxidant activity. He reports that short-time processing, high temperature followed by enzyme assisted processing, e.g. viscozyme remarkably improved the functional quality of ber juice and developed fruit bar using ber pulp functionalized with tomato lycopene and black carrot anthocyanin. Dr Koley obtained his Ph.D degree from Indian Agricultural Research Institute, New Delhi.
Dr Ramachandra designed and developed an efficient Aloevera gel filleting machine without aloin contamination having a production capacity of 100 kg/ha of trimmed Aloevera leaves. He established the equilibrium sorption isotherms of Aloevera gel powder to be used in its handling, storage and packaging. Dr Ramachandra obtained his Ph.D from IIT Kharagpur.

Dr Shinoj Subramannian developed Oil Palm Fibre filled Linear Low Density Polyethylene (LLDPE) biocomposites. Various physical, mechanical, electrical, optical, thermal degradation and rheological properties of the biocomposites were evaluated. Remunerative usage of oil palm biomass will not only help disposing it but give additional income which makes the oil palm industry more sustainable. Dr Shinoj obtained his Ph.D from Tamil Nadu Agriculture University, Coimbatore.
DR (MRS.) MANJINDER SHARMA, evaluated the development of embryonic stem cells (ESCs) derived from in vitro produced buffalo blastocysts over homogenous feeder layers and under feeder free conditions with three different concentrations (10 ng, 20 ng and 30 ng per ml) of LIF in the culture media and concluded that buffalo ESCs required LIF to maintain pluriopotency at 30 ng/ml along with 40 ng/ml bFGF for best results irrespective of feeder layers or synthetic matrices. She obtained her Ph.D from Indian Veterinary Research Institute, Izatnagar.

DR R.K. DUARIO established the probiotic potentials of two of the indigenous probiotic Lactobacillus strain Lp9 and Lp91 in terms of expression. The two strain evoked strong immune modulatory response in HT 29 cells under LPS stressed conditions. By virtue of these physiological functions the two indigenous strains could be used as potential candidate probiotics for development of novel dairy based functional foods to boost gut health and immunity. Dr Duary obtained his Ph.D. from National Dairy Research Institute, Karnal.
DR RAKESH KUMAR studied the biomedical and molecular characterization of *Salmonella serovars* in Cochin and finally developed a molecular technique for rapid detection of salmonella in seafood. The method could quantify the level of Salmonella load in seafood within 3 hours. He also identified six new serotypes of salmonella in sea food in India, which were not previously reported. Dr Kumar obtained his Ph.D from Cochin University of Science and Technology, Cochin.

DR SHAILESH SAURABH worked on *Argulus* infestation in Indian major carp. He showed that infection with this parasite caused the differential expression of immune gene in different immune competent tissues of rohu. Dr Saurabh obtained his Ph.D. from Central Institute of Fisheries Education, Mumbai.
DR SIVASAKTHI DEVI THAMBUSAMY studied the economies of food subsidy and National Rural Employment Scheme. The study showed that the NREGS is found to be more effective in transferring the benefits to rural poor as compared to PDS, even without including the other direct and indirect welfare impact generated by the works done through NREGS. The effectiveness of NREGS in terms of overall welfare to the society exceeds that of food subsidy. Dr Sivasakthi Devi obtained her Ph.D from Tamil Nadu Agricultural University, Coimbatore.

DR P. THILAKAR carried out research in multidimensional analysis on veterinary and animal science education in India with the objectives pertaining to the evaluation of the present veterinary curriculum. Both undergraduate and postgraduate students laid emphasis more on ward/hospital exposure, student farmer interaction and research orientation. The out turn growth rate of veterinary manpower was not proportionate with the growing population of livestock and poultry. Dr Thilkar obtained his Ph.D from Indian Veterinary Research Institute, Izatnagar.
In order to recognize the outstanding contributions of innovative farmers for initiatives in development adoption, modification and dissemination of improved technology and practices for increased income with sustainability, the ICAR instituted the awards for farmers at National and Zonal levels as:

- **National**: One annual national award of ₹ 100,000 each in any of the areas of agriculture and allied sciences + equal amount of travel grant across the country to promote his achievement are given to farmers at national level.
- **Zonal**: Eight annual awards of ₹ 0.50 lakh + equal amount of travel grant to promote his achievement and motivate farmers in his perspective zone. The geographical area of each zone is given in the guidelines of award.

These awards have been named after Jagjivan Ram (1908–1986) who was the Deputy Prime Minister and Union Minister for Food and Agriculture in the Union Cabinet. Sixty six (66) applications were received in response to the open advertisement. The winners in National level as well as at Zonal levels are as:
SHRI MOHINDER SINGH from Rasina village of Distt. Kaithal, Haryana, adopted several new technologies such as laser leveling underground pipeline in farm, vermin compost unit, sugarcane with trench planting, use of bio pesticides in crops, sowing of wheat with Happy seeder, zero tillage in paddy and wheat, internet facilities for marketing of farm produce, integrated weed management and water recharge. He also modified technologies by using Bio-gas slurry in vermin-composting, using of vermin wash as organic spray in wheat and paddy, preparing neem based pesticide for use in vegetables against jassid, beetles and leaf eaters, raising of gram crop on raised beds, preparing of high quality compost using NPK Gypsum and farm wastes and using of old shallow tubewell as water recharging device. With the use of technologies he could increase the productivity of paddy by 10 q/ha, Basmati 3 q/ha, Wheat 11 q/ha, Vegetables 49 q/ha and milk by 3 litres/day/animal in five years.
SHRI RAJVINDER PAL SINGH RANA from Mandiani, Ludhiana, Punjab brought out innovative ideas in fish production in Punjab. He developed tag machine for fish. The cost of the tag comes out 10 paisa/tag instead of 4 to 5 $/tag in international market. Due to this a fish farmer has been able to keep track of his stock. Shri Rana also developed technologies to carry the fish alive in the fish market by using an air blower which could operate with 12 V DC motor and also developed manure with available fish waste and jaggery. He also used the fish skin for different purposes.

SHRI SANTOSH KUMAR from Village Shakhwara, Distt. Gaya (Bihar) developed feed supplement, low cost shed for dairy animals. He adopted new technologies such as multi layered fish farming SRI method for rice cultivation and commercially viable vermin composting unit with capacity of 3,000 tonnes/annum. He owns 10.5 ha of land area and uses under Field Crops 6 ha, Horticultural Crops 0.5 ha, Agro-forestry Apiculture/Sericulture 0.5 ha, Dairy 0.25 ha, Fishies 0.5 ha and Fodder 1.5 ha. After adopting new technology he could produce Paddy 125 q/ha, Wheat 80 q/ha, Fishery 54 q/year/ha, Vermi Compost 3,000 tonnes/year.
Mr. V. Tuime Lolly developed Citrus Based Integrated Farming System in an area of 20 ha in Kachai village of Ukhrul district in Manipur. The citrus species that he grows on his farm are Khasi Mandarin (*Citrus reticulate* L) and Kachai lemon (*Citrus jambhiri Lush*). Along with citrus, the other crops that he is growing on the farm are maize, soybean, banana, papaya, vegetables, turmeric etc. and legumes as intercrop to maintain the soil fertility. He is also rearing 56 cattle and 5 pigs. He has constructed one water harvesting pond in which he is rearing the fish and utilizing the water to provide life saving irrigation to the crops during the lean period. As per Sloping Agricultural Land Technology (SALT), he developed his 8ha farm with different agro-forestry species (tree, bean, fodder trees, mulberry etc.) on the hill top, followed by horticultural crops, agricultural crops and animal & fishery component in descending order of elevation. He is raising the crops with the use of farm yard manure, vermicompost.
श्री देव नारायण पटेल
ग्राम—बचनखेड़ा
पी.ओ. आदमपुर जनूबी
जिला—लखनऊ
उ.प्र.

Zone IV

देवनारायण पटेल, ग्राम—बचनखेड़ा, पोस्ट—आदमपुर जनूबी, जिला—लखनऊ (उ.प्र.) के निवासी हैं। वह खेती में नवीन तकनीकों, पद्धतियों का प्रयोग कर इसे व्यवसायिक रूप में अपना चुके हैं और जैविक खेती पर जोर देते हैं।

इन्होंने सन् 2000 से व्यवसायिक फसलों की खेती करनी प्रारंभ की कृषि और पशु—पालन इनके लिए अत्यंत महत्त्वपूर्ण रहे हैं। यह लखनऊ दुर्गापुर संघ में संचालक मण्डल के सदस्य भी रहे हैं। अपने गाँव बचनखेड़ा में दुर्घट सहकारी समिति खुलवाने एवं उसके कुशल संचालन में इनकी महत्त्व भूमिका रही है।

बर्तमान में पारम्परिक फसलों के साथ—साथ ही व्यवसायिक फसलों में लहसुन, (रबी एवं खरीफ दोनों), फ्रूटबीन, मेथा एवं सब्जियों आदि को खेती नवीनता की आधार पर जैविक कृषि के माध्यम से कर रहे हैं। इन फसलों में से इन्हें अन्य की अपेक्षा कहीं अधिक लाभ हुआ है। इन्होंने ओषधीय एवं संगीत फसलों की खेती भी व्यवसायिक रूप से की है। इनमें प्रमुख हैं: शातावरी, आश्रमगंगा, सर्पगंगा, कैमॉलिया, जिरेनियम, ईसाबगोल, कालमेघ आदि।

कृषि के साथ मौन पालन (एपीकल्बर) भी इनका प्रमुख व्यवसाय है। सन् 2005 में इन्होंने मौन—बॉक्स से बी—कोपिंग को प्रारंभ किया था और बर्तमान में इनके पास 100 से अधिक मौन—बॉक्स हैं।
SHRI UDHAV ASARAM KHEDKAR from Shivni Dist. Jalna took the initiative for community watershed development to harvest maximum possible rain water to solve the water scarcity problem of the village. Micro irrigation technology like drip and sprinkler irrigation, \textit{in situ} soil moisture conservation practices, concept of Water Budgeting, Water Absorption Trench (WAT), Fracture Seal Cementing (FSC) are some of the important contributions of the farmer. Regarding Onion Seed Production, he is the first farmer to take Onion Seed Production on large scale and on commercial basis. He introduced new high yielding varieties like Phule Samarth, Agri Found Light Red, Agri Found Dark Red & Akola White, Baswant-780, Bhima Super & Bhima Selection. He observed that Dipping of Seed Bulbs in 1% KNO$_3$ solution resulted in enhanced sprouting of shoots.
SHRI GANPAT LAL NAGAR from Gulabpura, Tehsil-Anta of District-Baran. He had 3.30 ha agriculture land with a total income of ₹ 1.0 lakh only in the year 2002. He started scientific cultivation, crop diversification, value addition and dairying, which raised income to ₹ 2.87 lacs in 2006–07. The adoption of intercropping in orchard and innovation of coriander intercropping in safed musali helped him in getting higher income of ₹ 3.23 lacs in 2007–08, ₹ 4.65 in 2008–09 and ₹ 5.90 lakhs in 2009–10. He also modified bund former, cleaning and peeling machine and chisel plough to save labour. With the success of these machines he made it possible to cultivate safed musali in 1.4 ha area and also in the reduction of cost of cultivation and his net income raised to 11.95 lakhs during the year 2010–11.

SHRI VILAS TIJARE integrated different enterprises, viz. fish culture, Mango plantation, Dairy farming, waterchestnut cultivation etc, and posed as a role model for the visiting farmers/extension functionaries. The byproduct or residue of water chestnut was used for other purposes, e.g. compost which reduced dependence on external inputs and reduced the cost of production which makes more viable ecosystem for Sustainable agriculture.
The Council has instituted the N.G. Ranga Farmer Award for diversified agriculture in order to recognize the distinguished farmers for their outstanding contributions in the field of diversified agriculture. The award is aimed at creative and innovative approaches resulting in enhancement of production and productivity, resource conservation and application of improved farming techniques/practices in different disciplines of agriculture. The award carries a cash prize of ₹100,000 and given annually. The award has been named after Prof. N.G. Ranga (1900–1995). Six applications were received in response to the open advertisement, the recipient of award is:
SHRI S. GURCHARAN SINGH MANN a creative and innovative farmer from Tungwali village of Bathinda district of Punjab. He is independently managing his 42 acres of land for the last 20 years efficiently. Shri Mann has taken all types of farm enterprises in his farm which are diversified, well integrated, proper recycling, including toughest task of marketing of majority of his farm produces by himself. Quote a few diversified farm activities, Rice and Wheat, Fruits, Vegetables, Floriculture, Fishery, Biogas, agroforestry, value-addition and processing on a scientific lines. At a time when many farmers are looking alternatives to farming, Shri S. Gurcharan Singh Mann is living example and source of inspiration to many cotemporary farmers in India. His farm is visited by many farmers, extension, personal policy makers and administrators, and is serving as a centre for education.
परिषद ने कृषि एवं संबंधित विज्ञान पर हिंदी में तकनीकी पुस्तक लेखन के क्षेत्र में मौलिक व स्तरीय लेखन तथा भारतीय लेखकों को प्रोत्साहित करने के उद्देश्य से डा. राजेन्द्र प्रसाद पुरस्कार की स्थापना की है। यह पुरस्कार व्यक्तिगत रूप से अथवा लेखकों की टीम के रूप में प्रदान किया जाता है। प्रत्येक पुरस्कार एक लाख रुपये (100,000 ₹) नकद के रूप में दिया जाता है। कृषि एवं संबंधित विज्ञान के विभिन्न विषयों पर चार पुरस्कार प्रदान किए जाते हैं लेकिन एक विषय पर एक ही पुरस्कार दिया जाता है। कृषि एवं संबंधित विषयों के सभी मौलिक हिंदी तकनीकी पुस्तकों के भारतीय लेखक तथा एक से अधिक लेखकों की पुस्तकों के संपादक जिनका सम्य पुस्तक में उल्लेखनीय योगदान हो, इस पुरस्कार के पात्र हैं। यह पुरस्कार भारत के प्रथम राष्ट्रपति डा. राजेन्द्र प्रसाद (1884–1963) के नाम से दिया जाता है। खुले विज्ञान से प्राप्त बीस (20) प्रबंधितों में से पुरस्कृत लेखक और उनका योगदान इस प्रकार है।
डा. ऋषि पाल सिंह, सुप्रिया सिंह, श्रीनिवास गिरी द्वारा रचित पुस्तक ‘बीज एवं पौध संकर्धन सामग्री’ में बीज संबंधी विभिन्न विधाओं पर विस्तृत प्रकाश डाला गया है। बीज से संबंधित अक्सर पूछे जाने वाले प्रश्नों एवं उनके उत्तरों के समावेश के साथ उत्तर संकर्धन विधाओं द्वारा उत्पन्न पौध सामग्री के प्रभावकारण मानकों का भी उल्लेख किया गया है। इस पुस्तक में बीज, भारतीय बीज उद्योग के प्रभावी नियम, पादप प्रभेदों का परीक्षण, विमोचन तथा अधिसूचना हेतु भारतीय विनियमक प्रणाली, बीज उद्योग एवं बौद्धिक सम्पदा संबंधी अधिकार, बीज उत्पादन, बीज प्रसंसकरण, भण्डारण एवं बीज विपणन आदि विषयों पर विस्तार में जानकारी दी गई है। इस पुस्तक के उपयोग से न केवल विद्यार्थियों, शिक्षकों व बौद्धिक बीज ग्राम के बीज उद्यमी, विश्वविद्यालयों के विषयवर्तु विशेषज्ञ, प्रशिक्षणाधीन एवं अन्य अधिकारी भी लाभप्रद होंगे।
IN order to provide recognition for outstanding research and application leading to improvement of dry land farming systems, ICAR instituted an annual Vasantrao Naik Award for Research Application in dryland Agriculture 2011 of ₹ 100,000 which is given to a scientist or an extension worker who has made outstanding contribution in the areas of Water Conservation and Dry land Farming. The award has been named after Vasantrao Naik (1913–1979) who is regarded as Father of Green Revolution in Maharashtra. Four (04) applications were received in response to the open advertisement and the winner is:
DR S.K. SHARMA and team, through the use of new science tools (i.e. water balance analysis, dynamic crop planning and matrix ranking) along with understanding of the entire maize-based production and utilization system and farmers economy, and the location specific interventions of project effected remarkable impacts on resource poor farmers of dryland ecosystem of Bhilwara region of Rajasthan. The micro-farming system and bio-diverse farming system models on marginal lands improved net income from ₹7,000/ha to ₹35,500/ha. Adoption of contingent crop planning, efficient intercropping systems with in-situ soil moisture conservation and nutrient management practices increased the maize yield by 20 to 40% over different soil types reducing the loss of 10–30% of rainfall as runoff. The team includes Dr A.K. Kothari, Dr R.K. Sharma, Dr S.N. Sodani, Dr G. Ravindra Chary and Dr P.K. Mishra.
THE Council has instituted the Swami Sahajanand Saraswati Outstanding Extension Scientist Award in order to provide recognition to outstanding agricultural extension work done by agricultural scientists and teachers in the ICAR-SAU system and to provide incentive for excellence in agricultural extension methodology and education work. The award is exclusively meant for individual extension scientist/teacher. Two individual awards have been provided. An individual award would consist of ₹ 100,000 in cash and a citation. The awards have been assigned across the disciplines in agriculture and allied sciences. The award has been named after Swami Sahajanand Saraswati (1889–1950) a social reformer and the first president of All India Kisan Sabha. A total of twenty-two (22) applications were received in response to the open advertisement and the winners with their significant contributions are:
Dr Kadirvel Govindasamy carried out the extension work to refinement of artificial insemination (AI) technology which suits to tribal pig production system in the North-Eastern Hill region of India. The upgraded pigs obtained through AI weigh double the weight than the local non-descriptive pigs and yield higher number of piglet per delivery, resulted in improved productivity and provided higher economic return/pig/year, besides the farmers saved mating cost between 1,000 to 1,500.

Dr Sushil Kumar carried our research extension work in the field of biological control of Parthenium, a problematic weed. Dr Kumar has developed cost effective and sustainable techniques for the mass multiplication of bioagent *Zygoguamma bicolorata* and has distributed the live bioagent throughout India. The biological control has helped in suppression of Parthenium and restored other vegetation in large area on sustainable basis.
CHAUDHARY CHARAN SINGH Award for Excellence in Journalism in Agricultural Research and Development was instituted by the ICAR in 2000 in order to recognize the outstanding contribution in Journalism in the field of Agricultural Research and Development in the country. The award carries a cash value of ₹ 100,000 and is given annually for the outstanding contribution in Journalism in Agriculture and Allied Science through Hindi/English newspapers/magazines/Journals published in India. From 2010, an award for Journalist from electronic media, has also been added. An individual who has made significant contribution by way of writing/analyzing/reporting for enhancement/promotion of Indian Agriculture is eligible for this award. The award has been named after Chaudhary Charan Singh (1902–1987) who was the seventh prime minister of India. Seven (7) applications were received by the Council in response to the open advertisement and the recipients of the awards with their contributions are:
SHRI HARENDRA KUMAR GARG, has been bestowed with Chaudhary Charan Singh Award for excellence in Journalism in Agricultural Research and Development 2011 for his contribution in regular live telecast ‘Phone in live Krishi Darshan’ and for ‘Krishi Darshan’ on Door Darshan National Network. In ‘Krishi Darshan’ programme planning he meticulously chose the crops and allied activities according to seasons. In his Live Phone ‘Krishi Darshan’ programme, farmers from villages of the entire country participate and interact with expert to seek advice. His teleproduction ‘Honey bee Rearing and Agriculture Production’ was appreciated at national level.