## A DIALOGUE WITH Dr. S.N. PURI

A LEGENDARY ENTOMOLOGIST, A
PROVEN LEADER, THE LONGEST
SERVING VC OF AGRICULTURAL
UNIVERSITIES IN INDIA AND MUCH
MORE, YET WITH HIS FEET ON THE
GROUND AND A GREAT AFFECTION
FOR THE SCIENCE OF FARMING AND
FARMERS



orn on 24 January 1945 at Kharsoli, a small village in Nagpur District of Maharashtra, Dr. Subhash N. Puri was a bright student right from the very beginning. He completed his school education at Municipal High School, Mowad, Tehsil Narkhed, Dist. Nagpur. After completing his B.Sc. (Agri.) degree from College of Agriculture, Nagpur in 1968 with second position in order of merit from Nagpur University, he then moved to Indian Agricultural Research Institute (IARI), New Delhi to complete his M.Sc. and Ph.D. degrees in 1970 and 1975, respectively. Dr. Puri started his career in 1973 at Marathwada Agricultural University (MAU), Parbhani (Maharashtra) as an Assistant Entomologist (Cotton) and progressed in his career from Associate Professor, Professor and to become the officiating Head, Department of Entomology at MAU. Dr. Puri then moved to ICAR as a Director of National Centre for Integrated Pest Management (NCIPM), New Delhi during 1995-99. At NCIPM he did pioneering work on promoting IPM programmes in villages which lead to the success story of "Ashta, a model IPM village". Dr. Puri is the only Vice-Chancellor out of all the Agricultural Universties in India who has held the office for the longest period of time of 15.5 years. He started as the VC of Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri (1999-2004) and later as the VC of Central Agricultural University (CAU), Imphal (2004-2014). Both the universitites excelled on par at national level as a result of not only his focused efforts, sense of creativity and responsibility, but also because of the remarkable developments in the infrastructure, research and academics.

During his glorious journey of almost 41 years as a researcher, academician and science manager, Dr. Puri brought many prestigious laurels to himself and to the institutes he served. Some of the individual awards received by Dr. Puri are: Hexamar Foundation Award (1992), Achievement Award for IPM (1998), Sri Dodla Ragava Reddy Memorial Gold Medal Award (2002), Bramharshi Award (2003) by Environmental Protection and Sustainable Development Society (BHU, Varanasi), Honorary Fellowship Award (2002) by Applied Zoologists Research Association, Dr. M.R. Siddiqi Medal Award (2004) and Academic Leadership Award (2010) by Agriculture Today. Dr. Puri held various honorary posts on scientific bodies/professional societies which includes: President, Society for Plant Protection Sciences (1996-2002); President, Indian Agricultural Universities Association, New Delhi (2005); President, Indian Universities Association (2012); Member Working Committee of BCCI (2012). Currently he is presiding the President of Entomological Society of India (2004 - till date).

Besides his individual achievements, Dr. Puri is a proven leader in science and academics in India. The grand success story of the model IPM village implemented under the able guidance and dynamic leadership of Dr Puri as a Director, NCIPM brought the institute a good name at national level and the efforts were recognised by ICAR with Outstanding Team Research Award for the Biennium 2003-04. Dr. Puri has made landmark achievements during his tenure as a the VC of MPKV, Rahuri in terms of infrastructure development, increase of revenue income through mobilization of internal resources, strengthening of facilities for academics and research programmes. In recognition of this, MPKV was bestowed with the "Sardar Patel Outstanding Institute Award – 2002" by the ICAR, New Delhi for excellence in the field of Education, Research and Extension Education. Under the leadership of Dr. Puri as VC, the CAU, Imphal occupied second position twice in 2012 and in 2014 at national level as the best University based on its students' performance to secure maximum number of JRF positions.

Dr. Puri speaks to Dr. Babasaheb B. Fand, Associate Editor of Indian Entomologist and talks about his arduous and glorious journey from being a Scientist to the country's longest serving Vice Chancellor of Agril. Universities. The glimpses of the interaction are given below:

Dr. Babasaheb: Sir, on behalf of Indian Entomologists, I thank you for accepting our invitation to speak with the magazine as an Eminent Entomologist of India. Sir, our readers would like to know about your journey from a Scientist to the country's ever longest serving Vice Chancellor.

**Dr. Puri:** I was basically born and brought up in a rural set up and completed my primary and secondary education from a school at Mowad, my native place which was famous for its quality education at that time. My mother who was a primary teacher was not only the greatest inspiration in my life, but was also the one who identified and nurtured my talents (*Dr. Puri gets emotional for a moment with tears in his eyes in the* 

fond memories of his late mother whom he lost to old age an year ago). I secured 9th rank in Vidarbha region at Secondary School Certificate (SSC) examination in 1962. After completion of my 10<sup>th</sup> standard (SSC) examination I took admission in Government Science College in Nagpur. However, I could not pursue the same due to my family's poor economic condition. I then shifted to College of Agriculture, Nagpur and completed my B.Sc. (Agri.) degree with 2<sup>nd</sup> rank during 1964-68. It was my dream to get admission to IARI, New Delhi for the fellowship the institute provided so it could support my post graduate studies. I completed my M.Sc. (1968-70) and Ph.D. (1970-75) from Division of Entomology, IARI, New Delhi. After completion of my higher studies I joined Marathwada Agricultural University (Now, VNMKV), Parbhani in Maharashtra as an Assistant Cotton Entomologist in the year 1973 and rose to the level of Professor of Entomology in 1979. I was additionally looking after the charge of Head, Department of Entomology for more than 14 years. In the year 1995 I got an opportunity to serve the national agricultural research service by virtue of Director, NCIPM, New Delhi.

Since then the graph of my career went on up and I never looked back. I was selected as a Vice Chancellor of MPKV, Rahuri consecutively for two terms (1999-2004) and CAU, Imphal for two terms (2004-2014). I was also given an additional responsibility of Vice Chancellor of Konkan Krishi Vidyapeeth (KKV), Dapoli (MS) for a short period during 1999-2000.

Dr. Babasaheb: What was the special thing that made you to be an Entomologist? How did you choose Entomology as your profession?

**Dr. Puri**: I did not choose specifically or purposely Entomology as my profession. It happened as it is and went on. But yes, I do remember two key persons during my Undergraduate studies who inspired me to be an Entomologist, one was Dr. H.S. Thakare and the other was Dr. S.K. Mundewala at College of Agriculture, Nagpur. Both were really hardcore teachers of Entomology, because of which I developed interest in the subject. At that time, under the leadership of Dr. K.R. Thakare, the Entomology Section of the College of Agriculture, Nagpur was famous for its stalwarts. Another interesting thing that I would like to share in this context was that it was my hobby to learn and

remember the scientific names of animals and plants. Whenever my teachers of Botany and Zoology asked for identifying the plants and insect specimens, I used to answer with the scientific names rather than only telling common names. Thus, Entomology became a subject of my liking and choice as compared to other students who were generally scared of this subject on account of it. They found it boring and difficult to remember scientific names of the insects. Apart from this, I got fellowship at IARI to pursue my post graduate studies in Entomology. This was turning point in my life to be an Entomologist as the fellowship helped me in supporting my higher studies in the backdrop of poor economic conditions of the family. Once I joined my service, it was my dedication towards the farming community to develop and promote areawide IPM programmes to alleviate the serious pest problems of agricultural crops. The concept of "model IPM village" implemented in the capacity of Director, NCIPM, New Delhi gave me an identity of a "Man of IPM". It was the inspiration of Dr. R.S. Paroda, Former DG, ICAR.

Dr. Babasaheb: What are the challenges you faced in achieving your career goals? I think you are perhaps the country's longest serving Vice Chancellor. You have served for two terms as a Vice Chancellor of MPKV, Rahuri and another two terms as a Vice Chancellor of CAU, Imphal. Can you tell us something about the challenges you have to face while serving at these key managerial positions and what was your vision for the Universities you served?

**Dr. Puri:** As I told you in the beginning, rural and poor family background was one of the biggest hurdles in my early educational life. But my parents, especially my mother, recognized and nurtured my talents and potential in time. Whatever I have achieved in my life is all thanks to my mother. Through my sincere and hard efforts I could ensure fellowship, which was really a boon for me to complete my higher studies at IARI.

I have also struggled through many hardships during my professional career. When I joined MAU, Parbhani in 1973, it was in a budding stage with lack of facilities and a research vision. The biggest challenge before us was to establish well equipped laboratories and to inculcate and nurture an attitude towards research. I was quite lucky to receive full handed support from my seniors and peers in the Department to put in my vision for creating

good atmosphere for research and education. Dr. A.K. Raodev, the then Head of Entomology Department and Dr. V.M. Pawar, Professor of Entomology stood strongly behind me and encouraged me in my research and academic endeavours.

Under the able leadership and guidance of Dr. Raodev, a massive campaign was implemented in a Ratoli village to manage the menace of white grubs infesting sorghum crop in Marathwada region. This was the first community-based approach for pest management which involved mechanical destruction of white grub beetles by shaking neem and babul trees during the night time and burning them with a kerosene fire, spraying of insecticides on babul and neem trees and drilling of BHC powder in soil using seed drill. We, the staff of the University, stayed at the village for 10-15 days and made a white grub management campaign a great success story. The noteworthy achievement of this campaign was that it paved the way for establishing the All India Coordinated Research Project (AICRP) on white grubs by ICAR, New Delhi. I was also instrumental in collaboration of the University with Hexamer Foundation. The grants of Rs 6 lakhs per year received under the collaborative programme were used to establish pesticide research laboratory in the Department of Entomology. Under this collaboration, we conducted human health safety trials for the pesticide exposure. Ours was the first Agricultural University in India to conduct such trials and this further paved way for registration of synthetic pyrethroids for use in India during 1976.

The roles of Vice Chancellors at MPKV Rahuri and CAU, Imphal were altogether different with diverse challenges. On one hand, MPKV was a well-established University with a good set up of infrastructure, faculty in place, well-developed land and a jurisdiction of only 10 districts of western part of Maharashtra state. In that way, the job of VC, MPKV was relatively less challenging compared to CAU. When I joined as VC of MPKV in 1999, the financial position of the University was not so good. Therefore, I concentrated my efforts to increase the revenue through the production on University land by mobilization of internal resources and diversification. When I left MPKV in 2004 to join as VC, CAU the annual gross revenue of the University was increased to Rs. 11.0 crores as against the revenue of Rs. 6.0 crores at the time of my joining in 1999.

Besides this, I have strengthened the academic and research infrastructures at different campuses like Dhule, Pune and Kolhapur under the jurisdiction of the University.

Establishment of Hi-Tech Floriculture project at College of Agriculture, Pune was another satisfying experience as MPKV was the first Agricultural University in India to have such a project on commercial lines. The selling of flowers and vegetables grown under polyhouse conditions could earn revenue of Rs. 45 lakhs per annum. Besides, the hands-on training provided under this Hi-Tech project helped in generating skilled manpower. The project was appreciated by the visitors which gave a good recognition to the University at National level. I am most satisfied and happy with my successful tenue as VC, MPKV which helped in bagging a Sardar Patel Outstanding Agricultural University Award from ICAR, New Delhi in 2002. The notable achievements at MPKV, Rahuri both in infrastructure development and revenue generation through mobilization of internal resources can be a guiding path and learning lesson for all future leaders of the University to scale up new heights and widen its horizons.

On the other hand, being the VC of CAU was an uphill task because of its poor infrastructure, inadequate faculty, lack of an established academic council and colleges, and most of all, vast jurisdiction that spread across the seven states of North-Eastern Hill region. I had to start my work right from land acquisition and development of some campuses. Besides this, the biggest challenge was to bring the learned faculty and to retain them at this most unattractive remote place. My focus was to attract the trained manpower by recruiting retired, experienced senior faculties from other parts of the country who could guide the young faculty and students of the University. Thus, CAU in real sense became a Central University. With a good support from ICAR, I could establish two new campuses and strengthen existing academic infrastructures and students hostels of the four campuses in different NE states. Through my own sense of creativity and responsibility, I was able to inspire and motivate the students of CAU who came all the way from very remote areas to appear for the ICAR held All India competitive examinations like JRF and SRF for pursuing higher studies. My vision with hard work and efforts from the academic faculties helped to excel the CAU at national level by securing

2<sup>nd</sup> rank two times (2012 and 2014) based on maximum number of JRF/SRF positions in ICAR.

The great satisfaction was that I was able to convert a raw material (poorly trained students from remote areas with no exposure to advanced opportunities) into a finished product (qualifying students got national level exposure by getting admissions to other reputed institutes/Universities like IARI). I strongly feel, progress of the University was not merely the development of physical infrastructure, but the creation of trained and knowledgable manpower through HRD activities. This was possible only with cooperation from the Deans and the Faculty members from all the six colleges.

Of course, I have served at Vice Chancellor's post for about 15.5 years (5.5 years at MPKV, Rahuri along with additional responsibility of VC, KKV for short period and 10 years at CAU, Imphal). This can be the longest period in someone's professional life. However, I strongly feel that it is not important for how long I served as a Vice Chancellor, but it is rather important how best I served and what landmark achievements I could deliver in that position (As it is in his own words: मैं कितने साल तक वी.सी. रहा ये मायने नही रखता, लेकिन मैने उस पद को कितने सफलतापूर्वक संभाला है, और उस दौरान कौन सी उपलब्धियाँ हासिल कर सका हूँ ये सबसे अधिक महत्त्वपूर्ण है! of course, this was possible only with a strong and an unconditional support from my family. My wife, Dr. Veena Puri played a significant role by supporting me. Dr. Veena had to leave her lucrative medical practice in Parbhani when we shifted to Delhi after my selection as Director, NCIPM. Later, when I joined as VC, MPKV at Rahuri, she resigned from the post of M.D at a Private Hospital in Delhi. Since then, Veena took complete responsibility of growing, nurturing, educating and marrying off of our daughters. It was thanks to her that I could dedicate myself completely to my responsibilities as the VC of MPKV and CAU. I am very lucky to have her as my life partner who stood behind me in all the situations with courage.

Dr. Babasaheb: Sir, you have set an example of 'model IPM village' as a success story of cotton IPM in India when you were the Director of ICAR-NCIPM, New Delhi. Would you please throw a light on your vision as a pioneer in promoting IPM in India?

**Dr. Puri:** Before telling you about the story of model IPM village, I would like to tell you briefly about how I turned to be an IPM Entomologist. In fact, I did my M.Sc. in biological control with specialization in Insect Parasitology, and Ph.D. in Insect Toxicology. I was working as an Associate Professor of Insect Toxicology at Department of Entomology, MAU Parbhani. In the year 1976, I was deputed to East-West Centre, Hawaii, Honolulu for 2 months to attend an IPM workshop and this was the turning point in my professional career which changed my perception towards IPM. After coming back from the IPM workshop, I started working on IPM strategies and development of IPM modules for management of cotton pests. In my career at MAU, I have guided about 30 M.Sc. and 10 Ph.D. students who were assigned different IPM components to be evaluated for managing pests of cotton and other crops. Among 8 different IPM modules tested, I took the three best modules to farmers' fields in three different villages for their validation. The single best IPM module was selected for a large scale implementation. Thus, a strong research base for 'model IPM village' was laid at MAU itself which came into realization when I took over the responsibility of Director, NCIPM, New Delhi in 1995.

The story behind the concept of model IPM village is really an interesting one. Once, Dr. R.S. Paroda, Hon'ble Ex. DG, ICAR and Secretary DARE at that time called to tell me that one of his colleagues at FAO from Bangladesh was coming to India to visit a village where all the components of IPM were demonstrated. His words stunned me for some time because being a Director, I was not even in a position to name such a single village. I replied to DG politely but confidently that sir there is no such IPM village that you want to show to the visitors. This incidence made me ponder and hence was the real inspiration for me to direct my efforts towards the concept of model IPM village and its implementation. Accordingly, I prepared a project and submitted it to Cotton Corporation of India (CCI) for funding as the ICAR EFC was over and we were needed to wait till the next EFC. However, it was not supported for funding as CCI activities at that time were outside the Maharashtra state. Few days later, I had an interaction with Dr. Kapoor who was a Technical Head, Bayer Crop Sciences Ltd., he agreed to provide a funding of Rs. 6 lakhs for our project. I took Dr. Lavekar, my colleague from Entomology, and others from the Cotton Research

Centre, Nanded (under MAU Parbhani) into confidence and discussed with them about the implementation of model IPM village. All of them agreed for the same and accordingly we chose Ashta, a small village in Nanded District of Maharashtra for executing our project.

All the technical backup was provided by our scientists from NCIPM, New Delhi. Along with other scientists, I travelled periodically from Delhi to Ashta village in Nanded and guided the farmers through Farmers' Field Schools (FFS). It was the pre-Bt cotton era and the cotton farmers were already in distress due to bollworm damage. We built up a rapport with the villagers and convinced them to follow our instructions right from seed sowing to harvesting. The best IPM module from my PhD students' work was selected for demonstrations over 450 acres area. As seed treatment was necessary to ensure protection of cotton crop at early vegetative stage from the menace of sucking pests, a demonstration was arranged with the help of Bayer Crop Sciences Ltd. to show the farmers how to treat their cotton seeds with Imidacloprid 70 WS. The other components included in an IPM module were: growing of crops like cowpea, maize, etc. for attracting and colonizing natural enemies; local preparation and use of NSKE and HaNPV as an eco-friendly option for pest control; use of pheromone traps; three releases of egg parasitoids Trichogramma sp.; installation of bird perches; etc along with FFS to create awareness and provide technical guidance to the farmers. Our intense efforts culminated into a fruitful result with significant increase in the yield of cotton lint from merely 100 kg per acre in farmers' practice to 333 kg per acre in IPM module. Besides, the other benefits were reduced cost of protection, increased benefit: cost ration, increased margin of profit and environmental protection due to reduced pesticide use. "Thus, Ashta village become a success story as a model IPM village where the farmers were partnering for environmental protection." I tried to replicate the Ashta model in cotton villages of Dhule and Ahmednagar Districts when I was a Vice Chancellor at MPKV, Rahuri. Though I am satisfied with the outcome of our project, I strongly feel that the efforts to replicate the concept of model IPM village were not continued to a satisfactory level afterwards.

Dr. Babasaheb: You are serving as a President of Entomological Society of India since 2004. Under your dynamic and esteemed leadership, the Society is progressing remarkably along with widening the horizons of its activities like scientific publications and organization of symposia and workshops. What are your future plans and vision for further upscaling of the ESI and its reach to the Entomology fraternity?

**Dr. Puri:** What I strongly feel is that being an oldest and largest society of Entomology professionals of the country, ESI should be a "*think tank*" for any kind of advice related to plant protection in general and entomology in particular. Secondly, in order to make the society globally competitive and to increase its visibility, we certainly need to widen the sphere of its activities.

"ESI should be a think tank for advice related to plant protection and source of policy making for course curricula of Entomology"

During my tenure as a President of ESI, we have focused more on improving the quality of scientific publication and getting the best rating for our journal. My colleague Dr V.V. Ramamurthy and his team are really working hard for achieving the goals. I think that the quality of scientific publications is a combined responsibility of authors, editors and reviewers. From the year 2020, we constituted different categories of awards to recognise and encourage the young and talented minds. Besides, I feel that there is also a need to constitute "Life time achievement award" to recognise the retired people who contributed immensely to the Entomological science during their professional life. It is my wish that our society should also serve as a "Source of policy making" for framing curricula of Entomology courses to be taught in agricultural education across the Country. The overall focus of ESI should be to attract entomology professionals across the regions and encourage them to publish scientific papers of high quality from both national as well as international perspectives. For this, the young people need to come forward and to take the responsibility.

Dr. Babasaheb: How would you like to direct the entomological research in India? What are your expectations from and suggestions for Young Entomologists of our country?

**Dr. Puri:** Presently, Entomological science has made remarkable progress. However, there are still some important areas that did not receive adequate attention of the researchers. Very few people are working in the area of 'Quarantine'. Emerging pest problems are becoming a real challenge in the context of globalization and looming climate change. Therefore, I think there should be a special wing at each and Entomology Department of Agricultural Universities and Research Institutes, which is engaged in identification of potential pests that are likely to enter into our country and accordingly should be ready with a specified programme for their management. Taxonomy is another area where we need to strengthen our arms. Under the Network Project on Insect Biosystematics (NPIB), Dr. V.V. Ramamurthy has done a great job in creating fairly good facilities for taxonomy research in different Agricultural Universities who were part of the project as coordinating centres. These endeavours need to be supported on a continued basis. Another area where we need to focus is to reduce the role of chemical insecticides in pest management. Budding Entomologists should also get involved in developing their own new insecticide molecules which are effective yet relatively safer. Research into pheromones and their wider applications should also be planned. One can concentrate on creating maximum number of IPM villages to address the localised pest problems of farmers. In order to increase vast canvas of IPM, the inputs required are major bottleneck. Mass production and self-life enhancement of biopesticides and bioagents and addressing the issues related to their packaging and transport are the major areas of IPM research. As the animal and veterinary sciences are closely related to agriculture, association of the Entomologists who are working on Animal pests/ Veterinary Entomology with Agricultural Entomologists to work for the overall benefit of farming community will be a good idea.

Dr. Babasaheb: Sir, you are a proven science leader both in academics and research. Would you like to pass on a key message to the future science leaders of our country?

**Dr. Puri:** In our system of research and academics, we seldom give attention to learn about the administration and finance during active span of our career life. However, with rise in position, when we get an opportunity to be a science leader or manager, we must have a sound

knowledge of administration and finance in order to handle the related issues and to make the right decisions in time. Furthermore, the decisions you take need to be implemented effectively, else it will be meaningless. Therefore, with my own experience of serving at key managerial positions like Director and Vice Chancellor, I would like to advise the academicians and researchers to enter into administration and finance, know about the rules and regulations for execution of powers. While being at key positions, you should always keep a good rapport with your peers and take them into confidence for getting the work done smoothly. I can confidently tell you that, despite serving for a long time as VC, I tried to maintain a clean record of my service.

Dr. Babasaheb: Any suggestions or specific advice you would like to give for the improvement and wider reach of 'Indian Entomologists' magazine?

**Dr. Puri:** First of all, I would like to thank Indian Entomologists magazine for interviewing me and bringing at the forefront my achievements to its readers. Indeed, the magazine is doing well. However, as a serving President of ESI, I wish that the magazine should be a mirror to reflect the latest happenings and issues related to plant protection, especially the entomology across the country so as to make aware the entomological fraternity. I wish all the very best for a greater success of the magazine.

## Concluding remarks by Dr. Babasaheb:

As an Associate Editor of Indian Entomologist, I got



an opportunity to interact with respected Dr. S.N. Puri, a legendary Entomologist, a proven leader, the longest serving VC of Agricultural Universities in India and much more....yet with his feet firmly on the ground and a great affection for farming and the farmers. As I was assigned a task of conducting his interview, I called him and fixed an appointment for the 5th of January, 2022. After travelling almost 96 km from Nagpur, I finally reached Dr. Puri's native place Mowad that lies on Maharashtra's border with Madhya Pradesh. By the time I reached, Dr. Puri was busy in monitoring the harvesting of oranges in his 4 acres of citrus orchards. His energy and fitness even at the age of 77 years was admirable and inspiring to youngsters like me. The most appealing thing to me about Dr Puri was that even after serving on prestigious positions at National level, the man has still stayed humble and even after his retirement he prefers spending most of his time at his farm that is ions away from the glorious world. Besides citrus orchard, he also maintains a desi poultry and goats on his farm. The interview was conducted at his farm house itself by sitting in the laps of nature and breathing a cool breeze of healthy and clean air. We had a lengthy interaction for about more than 2.0 hours and I was most comfortable to talk because of his very simple, kind and humble nature and also due to prior familiarity being his student at MPKV, Rahuri. After the interview was over, we enjoyed a delicious lunch prepared at his farm house. I started my return journey after taking his blessings. Overall, it was really an overwhelming, inspiring and great learning experience for me, thank you Indian Entomologist for this wonderful opportunity.

The interview is conducted by Dr. Babasaheb B. Fand. He is working as Scientist (Agril. Entomology) at ICAR-Central Institute for Cotton Research, Nagpur - 441 108, Maharashtra, India. His area of research is on modelling climate change impacts on cotton insect pests and yield loss aggravation using phenology modelling and GIS based risk mapping approach, development and dissemination to farmers' fields of IPM strategies for cotton insect pests. He is also an Associate Editor of IE.

Email: babasahebfand@gmail.com