# 4th Professor S. B. Chattopadhyay Memorial Lecture delivered on 2.2.2012 at IMS C.U. Prof. Sudhangsu Bhusan Chattopadhyay—the wise-man of Indian agriculture

## **NILANGSHU MUKHERJEE\***

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Born on 1st November, 1923 in Haripur, Murshidabad, West Bengal in a middle class family, Sudhangsu Bhusan was the son of Late Ahi Bhusan Chattopadhyay and Late Umakali Devi. He died on 20th January, 2004 after living a glorious life of 8I years being so live for agriculture of the country. He is considered as one of the best teachers of plant sciences of twentieth century as Professor of Plant Pathology at College of Agriculture, Kalyani University and Bidhan Chandra Krishi Viswavidyalaya. Prof. Chattoapdhyay was an extraordinary person with a brilliant career, uncommon memory and very fast reading habit. Above all his love for students was unlimited. From his student days to professional career he was always the centre of attraction for all around.

### AS A STUDENT

Sudhangsu Bhusan's early education was in Andal East Indian Railway ME School for first six years and at Kandi Raj High School up to Matriculation. In fact he became a boarder in High school boarding at his 11 years age and continued hostel life since then. He matriculated, in 1937 from Calcutta University securing first grade Government Merit scholarship indicating his brilliance. He studied I.Sc. at Ripon College under CU and secured fourth position in the University final examination in 1939. He was awarded Govt. Merit Scholarship, University Scholarship and prize. As expected for scoring very high marks in Chemistry he was initially admitted to B.Sc. Chemistry Honours course in Presidency College, but his interest in life science, offer of number of scholarships in Botany Honours study and advice of Prof. S.N. Baneriee, - all got him admitted to B.Sc. Botany Honours course in the same college. He completed B.Sc. (Botany) in

1941 under CU being placed first in the First Class scoring all time record marks. He was awarded University Jubilee Scholarship and Nag Memorial Award. He did his M.Sc. in Botany from CU in 1943 securing first position in merit and record marks again. He was awarded University Gold Medal and A.K. Mitra Silver Medal of CU. After continuing as a research scholar and working in Mycology under Dr. S.N. Banerjee at CU for sometime, he left on a state scholarship for UK in 1945 for his doctoral research at Imperial College of Science and Technology, London. He joined the doctoral research program on enzymes in plant pathogenesis under Professor William Brown, the pioneer plant pathologist. He was awarded Ph.D. degree of London University and DIC from Imperial College in 1948. This course of events possibly caused the entrance of another brilliant person to the portals of agricultural sciences and more specifically plant pathology, prophetically to satisfy the great demand of Indian agriculture. Through his pioneering activities was born the class of crop protection programmes suitable for farming systems going on in villages.

### AS A PROFESSIONAL

In June 1948, Dr. Chattopadhyay came back from London to join the position of Assistant Mycologist at State Agricultural Research Institute (SARI), Department of Agriculture, Govt. of West Bengal. Subsequently in August 1953 he became the Mycologist. During his service in the Department of Agriculture he organised research and extension work in the field for plant disease control. His programme of work emphasized studies on the major crop diseases and their control and developing awareness among farmers about the necessity of recognizing disease problems of major crops of the state. The disease problems studied in those

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days include brown spot, blast, stem rot, and algal weeds of rice, foot rot and seedling blight, brown spot, brown and yellow rust of wheat, late and early blight, bacterial wilt, leaf roll and rugose mosaic of potato, bacterial and fungal wilt of brinjal, black vein of cabbage, wilt of bhendi, damping off of vegetable seedlings, red rot of sugarcane, wilt of pulses, stem rot and root knot of jute, anthracnose of mesta, foot rot and leaf spot of betelvine, wilt of guava mosaic of papaya, damping off of tobacco, leaf spot of mango and some others. Besides, surveys were conducted on anthracnose of betelvine and powdery mildew of wheat and barley. During this period he visited USA under TCM-grant for one year (1959) and studied the trends of plant disease researches going on there in different laboratories. During this period of his service he also supervised researches of some of his colleagues and others of whom 5 obtained Doctorate degrees from Calcutta University. These led to deep studies in some of the major fungal and bacterial diseases of crop plants and laid a strong foundation of plant pathology research in eastern India. He conducted number of studies on fungicide use right at the fields of Chinsurah Research Station and introduced and put emphasis in seed treatment. During his visit to US he became close to Prof. J.G. Dickson who was keen to establish an international institute for rice research at Chinsurah. While coming back from Philippines unfortunately his airplane crashed and the international institute was established elsewhere. But TCM grant helped him with huge contingent of modern research equipments etc. to start post-graduate studies at the Institute (Birla Agriculture College) he was made Principal of. In the last phase of his career he joined again the Department of Agriculture, W.B. as Advisor (1978-1983) and offered excellent advices to organize plant protection services all over West Bengal up to district level. He actively participated in the programs, toured and lectured extensively that reached all corners of the state to transmit the theme of the desired quality of plant protection work in West Bengal.

# **AS A TEACHER**

Professor Chattopadhyay has excelled as a 'teacher' all his capabilities and his students will never forget this man in the classroom. He was full of satisfaction and conviction in classrooms, scientific gatherings and also among farmers. Through teaching in a spell-bound classroom he

own a very large number of his admirer i.e. his students. A student who attended his classes either in mycology or plant pathology, or even in plant physiology, genetics or plant breeding never forgot him. Speaking in phrases and writing the 'keywords' in excellent handwriting on the blackboard he used to present the subject with crystal clarity, however intricaie the topic may be. His was not a colourful and flowery English, but a very attractive presentation of the basic concept and correct understanding. Even after initiating the post-graduate degree Tqrse in 1961 under the University of Kalyani (M.Sc. Ag. Plant Pathology) he continued to teach a number of subjects like mycology, virology, plant diseases, principles of plant pathology and principles of plant disease control with rare competence. For a short spell he even had to teach elementary nematolory, physiological disorders, nutritional deficiencies and toxicities of plants with no less satisfaction of students. While lecturing he wrote key-words on blackboard in his calligraphic handwriting, though not with much drawings. He never required to consult or dictate notes in classes. In fact most students, if not all, could easily take notes and understand the subject so much that they hardly required any additional preparation. He was remarkably liberal in awarding marks which reflected his profound affection for students. As administrator of a college (Principal), a Faculty (Dean) or a University (Vice Chancellor) he hardly over executed any punishment to any student or staff even if it led to some problems for the Institution or for himself. Teacher, Dr. Chattopadhyay always dominated over the administrator.

He actually started his teaching career around 1953 in State Agriculture College and was selected and joined the SAC as Principal in 1960. Since 1953 as State Mycologist he used to teach B.Sc. Ag. students mycology, plant pathology, plant diseases as also plant physiology and genetics at State Agriculture College later named as Birla Agriculture College at Tollygaunge (up to 1957) and Mohanpur thereafter. Under Kalyani University he was Professor and Dean, Faculty of Agriculture up to 1974 till the Bidhan Chandra Krishi Viswavidyalaya was established with Prof. Chattopadhyay as its first Vice Chancellor. When asked he used to tell that one category of teachers are those who sacrifice subject matter in the interest of simplification. Others in the time of being very up-to-date, refer publications that are still to be accepted in science. Besides plant pathology he showed great interest and

was knowledgeable in many other disciplines under agriculture. While in PG-classes he often walked out of class, attended small businesses and came back to start his lecture at the same point where he left.

Talking to students close to him he used to ask questions like 'how do you define.' 'cereals' or 'agriculture' or sometimes - 'what is the difference between jassids' and 'aphids' or 'mealybug' and 'bedbug'. He sometimes asked a teacher, may be formerly his student, as to how he will measure transpiration of a coconut tree. Having an extraordinary merit in a quick difficult IQ test among members of Faculty he scored 96% next following was with 44%. A flock of students or even his teacher colleagues very often talked about his extensive and very fast reading habit. He was a voracious reader with a copybook memory that was analytical too.

## AS A RESEARCHER AND EXTENSION TEACHER

Dr. Chattopadhyay strongly believed that agricultural research could only be helpful if the problem of research originates from fields. He always selected research programmes on diseases of major crops that appeared as major obstacle to crop production. He was never interested in reporting diseases of any unimportant plants.

In Calcutta he started supervising research of his colleagues at SARI since 1952, leading to Ph.D. (D. Phil) degrees of Nirmal K. Chakrabarti, (Brown spot) Ms. Krishna Mukherjee, (Bactl. Wilt), Ms. Chinmoyee Das Gupta (Helminthosporium), Sunil K. Bhattacharya (Guava wilt) and Prasanta K. Sengupta (Pulse Fusaria). Ms Arati Sarkar's researches on sugarcane red rot was not submitted to CU for a degree. Thereafter as Principal, Birla Agriculture College and Professor of Plant Pathology and Dean, Faculty of Agriculture, Kalyani Univesity (1961-74), Ph.D. degrees were awarded to 11 students namely S. Choudhury, K.B. Chakrabarty, M.K. Dasgupta, S. Gangopadhyay, N. Mukherjee, A. Mazumdar, Ms. A. Biswas, Ms. B. Mitra, S.K. Raj, Ms. S. Bhattacharya, and T.P. Mustafee for conducting researches on crop disease problems under his supervision. Another 10 students namely Ms. R., Mukherjee, T. Samu Singh, B.D. Sharma, S.N. Das, A. K. Bera, N.R. Parui, D.C. Khatua, S.R. Bandyopadhyay, B.K. De and S.S. Maity, continued their researches under his supervision and were awarded Ph.D. degree from Bidhan Chandra Krishi Viswavidyalaya (BCKV).

In course of his research activities he published more than 150 research papers mostly on disease problems of all the major field, fibre, sugar crops, vegetables, fruits, medicinals, seed pathology, storage diseases laying down the foundation of plant pathological studies and researches in West Bengal.

As a result a very good laboratory for plant disease research was developed and the Department of Plant Pathology eamed good name in the country. His recognition abroad helped the Department to be strengthened with grants of very valuable equipments etc. for pathological research. Besides UK and USA he visited Canada, Japan, the Philippines and USSR as invited scientist or representative of Government of India and gained experience in agricultural researches in those countries.

Dr. Chattopadhyay has written number of valuable books both in English and Bengali. Some of them are (i) Diseases of plants yielding spices, drugs and dyes (ICAR) that was revised (1992) as Diseases of Betelvine & Spices jointly with Dr. S. Maity, (ii) Principles and Procedures of Plant Protection (Oxford and IBH) 3rd Edn. (1993), (iii) Handbook of Indian Oilseed Crops (Oxford & IBH) (1994) and also revised the famous book by B.B. Mundkur - 'Fungi and Plant Diseases'. Books written in bengali on some basic aspects of agriculture are quite popular among growers in the state, 'Sashya Sanrakshan' (West Bengal State Book Board) being one of them. From the day Dr. Chattopadhyay joined as Asst. Mycologist he showed great interest in agricultural extension activities. His ability to freely move in farms and among farmers, his simplicity in approach and talk made him close to cultivators. As the Principal he visited extension villages under College Field Extension Wing in the Veterinary Clinic Jeep accompanied by the Veterinary Surgeon. As Dean or even as Vice Chancellor he continued this practice accompanied by a teacher of Agril. Extension or Agronomy. This way he was known to so many villagers and villages in different corners of West Bengal. During this long period he has also attended and lectured in innumerable training programmes, group meetings, workshops, seminars. with farmers, Extension Officers, and

many others in the audience. On diverse subjects he delivered excellent speeches in English or Bengali. As an expert he attended many programmes transmitted or telecast by Akashvani or Doordarshan. He wrote innumerable articles on different aspects of agriculture published in dailies or periodicals in Bengali. He participated as Advisor, Director or Scientific evaluator in Agricultural Re-Finance Corporation, Sharada Fertilizers, Government of India, West Bengal & Orissa or SC & ST component plan for districts of West Bengal in recognition of his wisdom.

## ACADEMIC ADMINISTRATOR

Positions held by him from Asst. Mycologist to Vice Chancellor, BCKV. Department of Plant Pathology, Principal & Dean, Faculty of Agriculture were essentially academic-cum-administrative in nature. His philosophy of administering relied more on his own intellect and developing close and friendly relations with his colleagues, subordinate staff members and students. He successfully ran and laid down the line of research work in plant protection and also extension programmes to be taken up. As Principal of Agriculture College he emphasized equally education and welfare of students and as Dean his aim was to organize post-graduate education and research in the State in different disciplines of agriculture. He emphasized having best intellects as 'teachers' from all over the country and abroad contacting very bright students of SAC, scientists of IARI, JARI, Coimbatore, Agra, Lucknow and elsewhere so that higher education and research in different areas of agriculture get a strong footing for the first time in West Bengal. As Vice Chancellor of the first agricultural university within a short tenure he brought his dream to reality by creating an Agricultural University of the State following the National Model of Integrating Education, Research and Extension in diverse and broader field of agriculture having initially two faculties of Agriculture and Animal & Veterinary Sciences and one each of Directorate of Extension Education, Directorate of Research, Directorate of Farms and Central Library. seeds sown by him grew into subsequent development of a Dairy Technology College, North Bengal Campus of Agriculture and six Regional Research Stations & six substations. His untiring efforts led to transfer of eight agricultural farms from State Government and development of three altogether new farms at Gayeshpur, Kalyani (C-Block) and Jhargram at thiee vital loca-

tions for the agricultural university. This established his foresight about the requirement of the University. He also initiated establishment of an Instructional Farm near the students hostels and an Horticultural Orchard development at Mondouri,

## **WISDOM AND DREAM**

Dr. Chattopadhlay dreamt creation of one agricultural university of the State that stands on its own ambience. Being the first Vice Chancellor he engaged architects to prepare the campus development plan for the University, the pillars and stairs of the Administrative Building of which welcoming all. The first statutes, and some rules and regulations were also drafted. Buildings of unique look and architecture were erected for the Central Library, Faculty of Agriculture, Directorate of Extension Education, Guest House, Veterinary Surgery building, and Hostels in his tenure. The undergraduate classes were shifted from Kalyani to Mohanpur and Veterinary Faculty was partially shifted from Belgachia.

As a person Prof. Chattopadhyay possessed some unique and uncommon qualities like legendary memory. He remembered and produced once a full page budget figures from memory, remembered names and home addresses of students and checked any default while signing Rly. concession for students, using no diary he never failed any. progtamme or appointment in his very busy days and remembered even a guardian years after even when he met him once for few minutes in his busy offrce. His speeding through pages of a book reminded one the capacity of Swami Vivekananda. Married to Ms. Pratima Mukhopadhyay, a college teacher of life science at Calcutta, he led a very simple life with two sons. He spent years together at his Kalyani residence working day and night for the college or the University leaving his family at Calcutta. His simple life style and dresses often drew attention for their poor fitting. He was fond of making social and courtesy calls and was very good at table-talks. He appreciated all types of foods particularly Bengali dishes excepting 'curds' to which he was allergic. Though rarely when sick, he became restless and made all out effort to come fit early.

Prof. Chattopadhyay was very clear and convinced about the critical role the capital-poor farmers have to play in food production programme of the counuy. He in his own method and language spbke of policies to enhance access of majority (poor) Indians to food, land, water, seeds, crop nutrients and technologies. Coming across the synthesis report of International Assessment of Agricultural Science and Technology for Development (IAASTD) in 2004 we realised his wisdom that he expressed earlier. His advices to the farmers were always related to the economic conditions of the farmer concerned and he strongly believed that In-

dian agriculture can only be sustainable with some sort of stability in farmers' livelihood. We felt that Prof. Chattopadhyay had as much well-wish and sympattry for farmers as he had for his sfudents. Farmers or students, all were always welcome to lit their lamp of life from the 'lamp of wisdom' of this man. At this point of time I can only remember - "a teacher affects eternity, he can never tell when his influence stops".