R. L. Paliwal (1928–2013)

Ripusudan Lal Paliwal, a veteran botanist and globally reputed maize breeder died on 5 January 2013 following his retirement from Centre International de Mejoramiento de Maíz y Trigo (CIMYT), Mexico, where he served as Director, Maize Improvement Programme, and as a contemporary of Nobel Laureate Norman Borlaugh.

As a scion of a respectable ‘Zamindar’ family, Paliwal had his roots grounded in agriculture. His choice of agriculture science for higher studies was therefore no accident. He obtained his Master’s degree in Agriculture botany with distinction in 1949. Thereafter, he was appointed Lecturer in B. R. College (now R. B. S. College), Agra a premier institute of teaching and research in Agriculture Sciences. In 1954, Paliwal earned his Doctorate degree for work on the embryology of Santalum album (a semi-parasitic angiosperm) and its allies. Using the highly refined technique of microdissection, he reported synergid haustoria in Santalaceae for the first time, which the Delhi School of Morphology consider persistent pollen tubes.

Paliwal switched over to crop plant cytotgenetics in 1950s, when it was emerging as a frontline area of research. The changeover was facilitated by the Fulbright Fellowship that he availed from 1956 to 1958 at the University of Oklahoma, USA. His discovery of the imposition of total male sterility with the addition of a single B chromosome to Plantago coronopus genome startled cytologist as the B’s were considered totally inert at that time. On his return to India in 1959, Paliwal and his students at Agra initiated work on cytotgenetics of Old World relatives of maize, which led to the rejection of the theory of Asiatic origin of Zea mays and prepared the edifice for his life-long engagement with maize breeding at Indian Agricultural Research Institute, New Delhi (1960–1964), U. P. Agriculture University, Pant Nagar (1964–1976) and CIMYT, Mexico (1976–1993). An extremely laborious and perceptive breeder, Paliwal evolved a number of elite varieties of maize. He also made several farm innovations, among which sweet corn and baby corn production are remarkable.

Paliwal was appointed Chairman of the Quinquennial Maize Review team of ICAR to review the Indian National Maize Programme and the International Association for Maize for Food, Feed and Industry. He was involved in collaborative projects with FAO on maize information network for the tropics, and delineation of maize-growing environments of important maize-growing countries of the world.

A prolific writer, Paliwal published research papers, book chapters and two scholarly books on maize. Tropical Maize Improvement and Production published by FAO, and Maize in Third World published by View Press, Colorado, USA are two popular books. He also worked as the editor of Maize EcoPort of FAO.

Paliwal’s contribution to world agriculture, hailed world over, has earned him several awards and honours – Doctor of Science (Honoris causa) by G. B. Pant University of Science and Technology (1988); Citation and Plaque of honour by International Conference of Seed Science and Technology, Delhi (1990); Citation and Plaque of honour by Indian Society of Genetics and Plant Breeding (1991); and Citation and Plaque of honour by UP Seeds and Tarai Seeds Corporation (1994). The Seed Research Laboratory of G.B. Pant University of Science & Technology has set up Dr Paliwal Seed Research Lab in honour of the monumental work that Paliwal has done to produce food for the teeming World population. Paliwal is survived by two sons, two daughters, numerous students and a horde of friends and admirers. He will remain etched in the memory of maize breeders world over for his incredible contribution.

Awtar Kishen Koulu

Baba Ghulam Shah Badshah University,
Rajouri 185 234, India

e-mail: akkoul2003@yahoo.com