

## TRIBUTES TO PUSTOVOIT MEDALISTS PISA 1992

*Georges Piquemal*

*Georges Piquemal* retired recently after forty years of work largely devoted to the breeding of oil-seed crops, and in particular, sunflower.

The early part of his life was quite adventurous. He was born in Indo-China, where he spent his childhood and studied to become "Ingénieur d'agronomie tropicale". He was sent to the Congo to work on groundnuts mainly, but also, already in 1948, on sunflower. Then he went to Algeria to work on industrial crops. He joined the Inra Station at Montpellier in 1961, with responsibilities at first not only for sunflower, but also rapeseed and olive trials. However, sunflower soon became preponderant.

Georges Piquemal has contributed significantly to many aspects of genetic and breeding research on sunflower, in particular methods of improving germination and of emasculation using gibberellin treatments, self fertility and seed set, *Macrophomina* resistance and dwarfs. He initiated and then supported the work both on genetic resources and *in vitro* techniques for which the Montpellier team is now well known. He is the author of many scientific papers and many graduate and postgraduate students have been grateful for his instruction and his understanding of the crop species he knows so well. He also collaborated in many Fao programmes.

His knowledge of the sunflower is probably the most striking characteristic of Georges Piquemal. His memory of all the diverse genotypes in his breeding nursery made him a walking data bank of genetic resources, before there were computers to memorize all the details. His knowledge permitted him to breed many different materials that have been, are, and will be, of great use to the sunflower community - be it farmers or commercial breeders.

One of his first successes was Issanka, an or rather the early population which was widely grown in the sixties and seventies in areas where Peredovik was too late. In the early eighties, he developed the successful hybrids, Rodeo, Elia, and Bolero. More recently, last year, the inbred lines he bred were parents of hybrids representing almost one third of the French sunflower area. This will continue, as Georges Piquemal's lines have not yet been fully exploited. Companies are still making and presenting for registration new hybrids based on them. On his retirement from Inra, his interest in breeding led him to spend some years in the private sector, where, as at Inra, he was a teacher and counselor for a new generation of sunflower breeders.

In the last two years, he has almost retired from the sunflower circuit, but we know he is still extremely active, in particular, with the charity organisation "les restaurants du coeur". We would like to thank him for his considerable contribution to sunflower research, and to wish him a long, active and enjoyable retirement.

*Dr. Georgieva-Todorova*

*Dr. Georgieva-Todorova* dedicated 40 Years of scientific research to sunflower, over a period spanning from 1950 to 1990. Her entire career was spent at the Bulgarian Academy of Sciences in Sofia, carrying out research devoted to understanding the genetics and cytogenetics of the genus *Helianthus*.

*Dr. Georgieva-Todorova* was born in a rural area of Northern Bulgaria. In 1950, she completed her University education at the Higher Agricultural Institute, Department of Selection, in Saratov, Ussr. In 1959 she defended her Ph. D. thesis and in 1973 she was awarded the degree Doctor of Sciences. She was named Head of the Department of Genetic Relationships at the Institute of Genetics in the Bulgarian Academy of Sciences, Sofia. In this capacity, she was responsible for several postgraduate, Ph.D., and post-doctorate students.

The main aim of *Dr. Georgieva-Todorova's* research was to study the cytological relationships between cultivated and wild species of sunflower. This research enhanced the transfer of useful characteristics from wild relatives to cultivated sunflower. Based on the karyotype of interspecific crosses and their fertility rates, genetic relationships were determined between cultivated sunflower and the different taxonomic sections of *Helianthus*. Idiograms of ten different ploidy species along with detailed studies of 16 species and their interspecific hybrids were originally studied by *Dr. Georgieva-Todorova*. For the first time in sunflower, in vitro techniques were developed and utilized to avoid the incompatibility barriers of interspecific crosses. The results of *Dr. Georgieva-Todorova's* research have been published in more than 100 scientific papers in refereed journals of international prestige, at different international conferences, and in several symposia of sunflower researchers. She served the sunflower industry by being a member of the Executive Committee of the International Sunflower Association and was a long-term member and one of the most active participants in the Cytogenetics Section of the FAO Subnetwork on Genetics.

For her dedication to her profession and for her contributions to the scientific knowledge of sunflower, she is a recipient of the V.S. Pustovoit Award.

*Dr. A.B. Dyakov*

*Dr. A.B. Dyakov*, a leading researcher in the field of sunflower cultivation in Russia, has long been an eminent figure in agricultural science in Eastern Europe. He has devoted many years to research on oilseed crops, with in-depth study of the genus *Helianthus*. He is particularly appreciated for his interest in the development and improvement of sunflower, to which he has dedicated over three decades of his life-time of study.

He has had a distinguished career as a plant physiologist at the Wniimk Institute in Krasnodov, Russia, where the area of research in which he has been

actively engaged in plant physiology, plant nutrition, and oil and protein synthesis. His research has led to valuable and original results, which have been published in numerous scientific journals and also in the proceedings of the International Sunflower Conferences.

For his lifelong dedication to his profession and for his outstanding contribution to scientific knowledge on the subject of sunflower, he is a recipient of the U.S. Pustovoit Award.