

## **Paul Harold Adalsteinn Niel Westdal (1921-2010)**

Harold Westdal, retired crop-protection entomologist and long-time member of the Entomological Society of Manitoba, passed away on 20 January 2010. Harold was born on 5 November 1921 in Wynyard, Saskatchewan, and left the family farm in 1940 when he moved to Winnipeg to pursue his education. Harold graduated with a BSc degree in 1947 from the University of Manitoba. He immediately took a position as an entomologist with the Dominion Entomological Laboratory in Brandon, Manitoba. He spent his first years examining pests of vegetables. By 1948, Harold had caught the bug and was enrolled in a Masters program at the University of Manitoba. He graduated in 1950 after completing a study of the life history of the flea beetle, *Phyllotreta pusilla*. Harold continued his work in Brandon and became an authority on insects of sunflowers and performed a great deal of this work in conjunction with the fledgling sunflower crushing industry based in Altona, Manitoba.



In 1957, Harold and his young family moved to Winnipeg because his position was Station there (now the Cereal Research Centre of Agriculture and Agri-Food Canada). Here he became interested in insect-vectored diseases in cereals and began a focused study of leafhoppers, particularly the six-spotted leafhopper, *Macrostelus fascifrons* and the painted leafhopper, *Endria inimical*. In the early 1960s, Harold initiated work with the USDA to examine movement and infectivity of leafhoppers as they migrate from the southern United States northward into Canada. In this work, he was well ahead of his time with respect to the tracking of migratory insects from their source, a challenge that most entomologists ignored until the arrival of computer tracking of air movements. Harold made significant contributions to the understanding of the leafhopper-vectored diseases: aster yellows, barley yellow dwarf, wheat striate mosaic virus, and oat blue dwarf virus. His work was a model for other studies of leafhoppers as vectors of many diseases of plants across the US and Canada, and was also the focus of his PhD thesis research, for which he received his degree from the University of Manitoba in 1969. On completion of his PhD, Harold took a postdoctoral transfer of work to New Zealand from July 1969 until July 1970 at the Department of Science and Industrial Research in Lincoln, where he continued work on insects as vectors of plant diseases.

Upon his return to Canada, Harold worked on control strategies for leafhoppers and also returned to studies of flea beetles and the sunflower beetle (*Zygogramma exclamationis*). Harold had many discussions with his brother-in-law, Dr Baldur Stefansson, "the father of canola", about the development and production of this new crop. This led Harold to work on control strategies for flea beetles in canola and he became the leader of the insecticide evaluation program at the Agriculture Canada Research Station in Winnipeg. This work focused on maximizing the effectiveness of flea beetle control by comparing the efficacy of seed treatments, granular applications and sprays in various combinations. The work had immediate practical application, but its rigour also allowed the

data to be used for economic modelling to optimize management. Harold not only did the experimental studies and produced the results, he also had a deep understanding of the biology and behaviour of insects, which contributed to his success as a researcher.

After his retirement, Harold set up Westdal Agri Consultants and continued working on flea beetle problems and evaluating control strategies. At the same time, he returned to his roots and began farming with his brother Jack near Poplar Point, Manitoba. Harold continued farming until he was in his seventieth year.

Harold was a member of the Entomological Societies of Manitoba and Canada. He joined the Entomological Society of Manitoba during its first year of operation, and was President in 1959, and Editor of the Society's Proceedings from 1976 to 1979. Harold's patient helpfulness and calm approach to any issue was a valued attribute in his editorial role, in which he was very helpful to authors, offering solid recommendations on reviewers' comments and fair judgments. At his death, he had been a member of the Entomological Society of Manitoba for 64 years, and so had the longest membership term of all. Harold was an adjunct professor in the Department of Entomology at the University of Manitoba from 1976 to 1982. He produced over 35 research publications in peer reviewed journals. His expertise on insect vectors of plant pathogens was widely sought both before and after his retirement.

Harold was a vibrant and engaging man and will be remembered by those who worked with him as a man who was extremely generous with his time and many talents. He was a person with great humor and wit. He is survived by his wife Dee Dee, daughters Laureen (Ken) Goodridge and Carol Westdal, son Neil (Judy) Westdal, and five grandchildren.

Blaine Timlick, Neil Westdal and Neil Holliday, Winnipeg  
(with contributions from Terry Galloway and Bob Lamb)