

OBITUARY

David Rosen
(1936-1997)



IN MEMORIAM

David Rosen, First Incumbent of the Vigevani Chair of Agriculture, and Professor of Entomology at the Faculty of Agricultural, Food and Environmental Quality Sciences at the Rehovot campus of The Hebrew University of Jerusalem, passed away on January 8, 1997, after a prolonged illness.

David was born in Tel-Aviv on April 20, 1936, the only child of Josef and Fela Rosen. After graduating from high school in Tel-Aviv, he began his agricultural studies at The Hebrew University of Jerusalem. In 1959 he submitted a Master's Thesis in Plant Protection, based on research conducted under the supervision of the late Professor Z. Avidov, and was awarded the degree "with excellence". This was the period when local citricultural research was promoted by the late Israel Cohen of the Citrus Marketing Board, a man of vision who had earlier been instrumental in the successful biological control of a major citrus pest. Cohen enthusiastically supported David in his Ph.D. studies on the natural enemies of citrus scale insects. This in turn stimulated David's interest in all aspects of biological control, with special emphasis on systematics. While developing his taxonomic skills David established contacts with specialists worldwide, especially with Professor Paul DeBach of the University of California at Riverside. In 1964 he completed his Ph.D. studies and shortly afterwards (1965) was awarded the Jacobson Prize for research on citrus. In 1966 he began his postdoctoral studies with Paul DeBach at Riverside. At that time they began their collaborative studies on the systematics of parasitic wasps of the genus *Aphytis*, which culminated in 1977 with the publication of their monumental monograph, "Species of *Aphytis* of the World". The book won them First Prize (gold medal), of the Filippo Silvestri Foundation, Naples. Their fruitful association and deep friendship continued for many years, until Professor DeBach's death in 1992.

Following his return to Rehovot, David developed and taught a very successful and popular course in Biological Control. In 1967 he was appointed Lecturer in Agricultural Entomology. By then David had begun to be widely known, as attested to by his appointment in 1968 as a member of the International Working Group for Biological Control of Citrus Coccids and Whiteflies, of the Organisation Internationale de Lutte Biologique (OILB), as well as to the Advisory Panel of the International Biological Program (IBP) Project for Biological Control of Armored Scale Insects. During the years 1968-70 he returned to Riverside to work with DeBach. His next promotion (1971) at the Hebrew University was to Senior Lecturer in Entomology. He was elected and served as chairman of the Teaching Program in Plant Protection until 1973. His interest in taxonomy led him at that time to propose and teach another very popular new course, Principles of Systematic Zoology. In 1974 he was promoted to Associate Professor of Entomology and elected acting Chairman, Department of Entomology; he was promoted to Professor and during 1977-80 served as Chairman

of the Department.

In 1981 he lectured at the International Centre for Insect Physiology and Ecology in a Group Training Course in Pest and Vector Management, Nairobi, Kenya. During the same year he was appointed a Visiting Professor of Entomology, Department of Entomological Sciences, University of California, Berkeley, and invited to become a member of the Editorial Committee, responsible for the organization of Vol. 29, "Annual Review of Entomology". In 1983 he was a Visiting Professor of Entomology, University of Maryland, College Park, as well as a Cooperating Scientist, Beltsville Agricultural Research Center, USDA (Maryland). Furthermore, he was appointed a member of the FAO/UNEP International Panel of Experts on Integrated Pest Control, Rome. In 1985 he was appointed a member of the Scientific Committee, *Bollettino del Laboratorio di Entomologia Agraria "Filippo Silvestri"* di Portici, Italy, a member of the Editorial Board of "Entomophaga", published by IOBC, and a member of the International Advisory Council for Biosystematic Services in Entomology, representing the Middle East Region. In 1986 David was appointed as the representative of the Israel National Academy of Sciences to the International Organization of Biological Control, West-Palearctic Region (IOBC/WPRS) as well as a member of the Scientific and Technical Committee, "Parasitis 86", Geneva, Switzerland. In 1988 he was appointed Director, The Hebrew University Research Center for Integrated Pest Management, and to the Advisory Board of International Correspondents, "Annual Review of Entomology". By 1989 he was appointed a member of the Editorial Board of "Phytoparasitica"; elected Subject Editor for Biological Control for the "Journal of Hymenoptera Research", and attended the General Assembly of IOBC/WPRS (Firenze), where he was elected Deputy Member of Council for 1989–93.

David Rosen was appointed First Incumbent, the Vigevani Chair of Agriculture, The Hebrew University of Jerusalem, in 1990. He was appointed a Charter Member of the Editorial Board of the periodical "Biological Control"; visited the Soviet Union upon being invited by the Zoological Institute, Academy of Sciences, Leningrad; and delivered lectures at the Institutes of Plant Protection, Tbilisi (Georgia) and Pushkin (Russia). He spent the following year as a Visiting Professor of Biological Control, University of Florida, Gainesville. In 1992 David travelled to the Republic of Kazakhstan, in order to establish cooperation under the auspices of USAID/CDR (the United States Agency for International Development/ Cooperative Research and Development program). In 1993 he was appointed to the Board of Directors of the Chinese-Israeli Center for Training in Agriculture, Beijing. He also visited Berlin, on the invitation of the Federal Ministry of Environment, for discussions of collaborative research, and later attended the General Assembly of IOBC/WPRS (Lisbon), there to be re-elected Deputy Member of Council for the years 1993–97. Finally, he was appointed a member of the Editorial Board, "Integrated Pest Management Reviews", and in 1994 was appointed to the Academic Council, The College of Judea and Samaria, Ariel (Israel).

David attended many congresses, at which he was a sought-after personality and fulfilled many important functions. In 1974 he represented the Israel Ministry of Agriculture at an EPPO (European Plant Protection Organization) Conference on Integrated Control in Horticultural Crops (Kiev). In 1976 he organized and moderated the symposium on the role of hyperparasitism in biological control (15th Int. Congr. Entomology, Washington, DC). In 1980 he presented an invited paper at the 16th Int. Congr. Entomology (Kyoto). In 1984 he organized and moderated a symposium on incorporation of biological control in integrated pest management programs (17th Int. Congr. Entomology, Hamburg). In 1980 he organized and moderated a symposium on genetic manipulation of arthropod biological control agents (18th Int. Congr. Entomology, Vancouver). In 1990 David participated in the Sixth Int. Symp. of Scale Insect Studies (Krakow) and in 1991 in the 12th Int. Plant Protection Congr. (Rio de Janeiro). In 1992 he attended a Workshop on Biological Control of Coca at the Office of Technology Assessment, U.S. Congress (Washington, DC); chaired the session on Biological Control at the Seventh Int. Congr. of Citriculture; presented an invited paper at the meeting of the IOBC/WPRS Working Group on Integrated Control of Citrus Pests (Acireale, Italy);

and organized and moderated a symposium on Advances in the Study of *Aphytis* at the 19th Int. Congr. Entomology (Beijing). In 1995 David attended the Nicholson Centenary Meeting, "Frontiers in Population Ecology" (Canberra) and presented invited lectures in Australia. He later delivered a paper at the 13th Int. Plant Protection Congr. (The Hague), where he invited the next IPPC to Jerusalem for the year 1999. Upon acceptance of this invitation he was appointed Chairman of the Organizing Committee. Finally, he presented two invited papers at the Int. Symp. on "Citrus Health in the Mediterranean Area" (Valencia).

Throughout his professional life David was a proponent of principles and philosophy of biological pest control. However, he was far from being a fanatical adherent of this discipline, realizing quite early that natural enemies alone may often not suffice for adequate pest control. For this reason he always advocated integrated pest management, and, among other topics, studied the effects of agricultural chemicals on natural enemies. In his later years he became interested in the use of pesticide-resistant natural enemies, promoting their study in Israel and abroad; and also in the biology of several pests of cotton and solanaceous crops – potatoes and processing tomatoes, and contributed his expertise to control projects undertaken in developing countries.

Professor David Rosen had a vast impact on the development of Plant Protection in Israel and abroad, inspired many students, and wrote or edited several significant books. His impact may be realized from the fact that he participated in, or chaired many committees in Israel concerned with various aspects of pest control. Among others, these included an Advisory Committee for Citrus Pest Control, a Committee on New Pests, Governing Board of the Plant Protection Branch and Chairman of the National Steering Committee for Reduction of Pesticide Use, all at the Ministry of Agriculture; the Steering Committee of the Biological Control Institute (Citrus Marketing Board); the Committee for Integrated Pest Management of the Fruit Board of Israel; the Organizing Committee of the International Conference on Modern Agriculture and the Environment, Rehovot, and recently served as Chairman of the Steering Committee, Agritech Agro-Ecology Conference, Tel Aviv.

During his scientific career, he supervised 20 Ph.D. and 33 M.Sc. students, many of them jointly with colleagues. He published 140 Research and Review Papers in scientific journals, 33 Chapters in Books, and authored or edited the following 8 books:

Rosen, D. and DeBach, P. (1979) Species of *Aphytis* of the World (Hymenoptera: Aphelinidae). Israel Universities Press, Jerusalem, and W. Junk, The Hague, The Netherlands, ix+801 pp., 1342 figs.

Rosen, D. [Editor] (1981) The Role of Hyperparasitism in Biological Control: a Symposium. University of California Division of Agricultural Sciences, Riverside, CA, Publication 4103, 52 pp.

Rosen, D. [Editor] (1990) Armored Scale Insects: Their Biology, Natural Enemies and Control. World Crop Pests series, Volumes 4A, xvi+384 pp., and 4B, xxvi+688 pp., Elsevier Science Publishers, Amsterdam, The Netherlands.

DeBach, P. and Rosen, D. (1991) Biological Control by Natural Enemies. 2nd ed. Cambridge University Press, Cambridge, UK, xv+440 pp.

Rosen, D., Bennett, F.D. and Capinera, J.L. [Editors] (1994) Pest Management in the Subtropics: Biological Control – a Florida Perspective. Intercept, Andover, UK, xiv+737 pp.

Rosen, D. [Editor] (1994) Advances in the Study of *Aphytis* (Hymenoptera: Aphelinidae). Intercept, Andover, UK, xiii+ 362 pp.

Rosen, D., Bennett, F.D. and Capinera, J.L. [Editors] (1996) Pest Management in the Subtropics: IPM – a Florida Perspective. Intercept, Andover, UK.

Rosen, D., Tel-Or, E., Hadar, Y. and Chen, Y. [Editors] Modern Agriculture and the Environment. Kluwer Press, Amsterdam, The Netherlands (in press).

Lastly, David had almost completed editing yet another book, "Readings in Biological Pest Control", which is to be published by Intercept, Andover, UK.

David was awarded numerous competitive research grants, most of them for research on hymenopterous parasites of scale insects. These included grants from the Israel National Academy

of Sciences and Humanities, Agricultural Research Organization (Israel), U.S. Department of Agriculture, U.S. Agency for International Development for Research, U.S.-Israel Binational Science Foundation (BSF) and U.S.-Israel Binational Foundation for Agricultural Research and Development (BARD).

David was a gifted teacher. He taught courses at Rehovot in General Entomology, Introduction to Pest Management, Orchard Entomology and Biological Control, and led seminars in Biological Control and in Insect Ecology and Biological Control at the University of California, University of Maryland, Texas A&M University; and the University of Ankara (Turkey); he conducted a seminar on Special Topics in Entomology at the University of Florida. His superb teaching was yearly recognized by the students and the Dean of his Faculty in Rehovot. Shortly before he passed away he was awarded a certificate from the Rector of The Hebrew University of Jerusalem citing his outstanding teaching qualities and contributions over many years.

David was very public-spirited and a willing member of several committees during his career, and served as Chairman of the Cultural Affairs Committee, of the Academic Program on the Committee for International Academic Relations, of the Committee for the 50th Anniversary of the Faculty of Agriculture and of the Center for Integrated Pest Management. David was a member of many learned scientific societies, including the Entomological Society of America, the Royal Entomological Society of London, the International Organization for Biological Control of Noxious Animals and Plants, the International Society of Chemical Ecology, the Entomological Society of Southern Africa and the Entomological Society of Israel.

Despite his illness, David kept very busy even during the last weeks of his life. He insisted on continuing to teach and to supervise several of his students. David regularly chaired the meetings of the IPPC Organizing Committee, and carefully read through the final chapters of the Hebrew version of his book "Biological Control by Natural Enemies", translated (to his great joy) by his children. This was greatly facilitated by his very clear, almost "print ready" handwriting.

David Rosen held firm, and strongly-expressed, political views. A chance to combine these tenets with his academic credentials and standing arose when he was asked to serve, as he gladly did, on the Academic Council of The College of Judea and Samaria, at Ariel. David had a true collector's spirit, collecting (besides stamps and coins) antique entomological books. The latter (some dating to the early 19th Century) were prominently displayed in his office, and were a source of endless pride – and citations.

A special chapter in his professional life was associated with our colleague, the late Professor Haggai Podoler. Haggai was an ecologist and co-operated with David in many projects. They supervised numerous students together. Upon Haggai's very untimely passing, David undertook to care for all of Haggai's students. He also organized the yearly commemorative meeting for Haggai.

David had an outgoing personality and loved attending parties. He had a great sense of humor; being a born raconteur every meeting with him was accompanied by at least one of his jokes (some of which were incorporated into his lectures).

David is survived by his wife Mazal, his staunch companion since 1958, and their three children, Orna, Sefy and Nurit, and three grandchildren.

David had very many friends in Israel and abroad, and we all mourn the passing of a good friend, a scientific authority of international repute, and a wonderful teacher.

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