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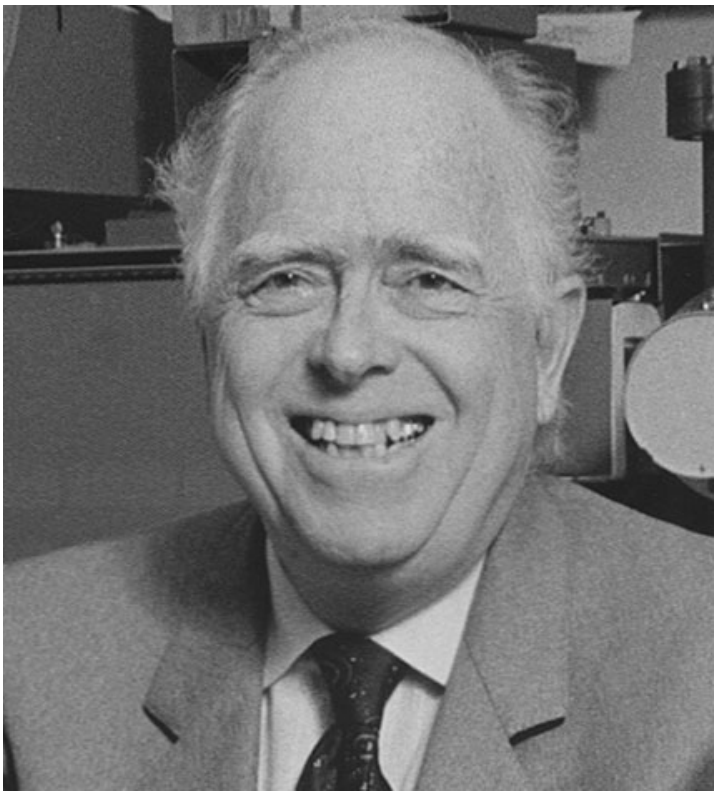
IN MEMORY OF PROF JOHN CASIDA



John Casida, professor emeritus of environmental science, policy and management and of nutritional sciences and toxicology at the University of California, Berkeley, passed away at the age of 88 on June 30. He was the founding director of the campus's Environmental Chemistry and Toxicology Laboratory, and has been one of the world's leading authorities on how pesticides work and how they can potentially harm humans.

Casida's interest in bug collecting as a teenager eventually led him to investigate how DDT and other synthetic pesticides introduced in the 1940s affected insects, and over the course of his 70-year career he made important discoveries in the fields of pesticide biochemistry and toxicology. His research on natural and synthetic pesticides laid the groundwork for the development of more selective and safer compounds.

Casida obtained his B.S. in entomology in 1951, an M.S. in biochemistry in 1952 and a Ph.D. in entomology, biochemistry and plant physiology in 1954, all from University of Wisconsin in Madison. Upon graduation, he joined his father on the University of Wisconsin faculty, though in the Department of Entomology, where he directed the Pesticide Chemistry and Toxicology Laboratory. He was promoted to full professor in 1961.

In 1964, Casida joined UC Berkeley's entomology department, which is now part of the Department of Environmental Science, Policy and Management, and held the William Muriece Hoskins Chair in Chemical and Molecular Entomology from 1996 to 2011. In 2014, he stepped down from teaching but continued his research and mentoring as a professor in the graduate school.

When awarded the Wolf Prize in Agriculture in 1993, the Wolf Foundation lauded his "research on the mode of action of insecticides as a basis for the evaluation of the risks and benefits of pesticides and toxicants, essential to the development of safer, more effective pesticides for agricultural use.

His discoveries span much of the history of organic pesticides and account for several of the fundamental breakthroughs in the fields of entomology, neurobiology, toxicology and biochemistry."
Casida made key contributions to understanding the chemistry, metabolism and toxicology of many classes of pesticides still in use today, including organophosphate, carbamate, pyrethroid, neonicotinoid and ryanoid compounds. Among his discoveries was that ryanoid and cyclodiene insecticides disrupt specific ion channels – the calcium and gamma amino butyric acid or GABA channels – which opened up new avenues of research to identify other compounds that interact with GABA receptors. His work helped to understand not only how pesticides kill insects, but also how they are metabolized by other animals, including humans, and their fate in the environment. Casida and his UC Berkeley colleagues were able to formulate new compounds that were more active and less long-lasting than chemicals used widely in farming at the time.
The co-author of more than 850 publications and 31 patents in the field of pesticide toxicology, Casida trained more than 230 scientists who now occupy leading positions in industry, government and academia across the world.
He was elected to the U.S. National Academy of Sciences in 1991 and to the Royal Society in 1998. He won numerous awards for his work, including the first International Award for Research in Pesticide Chemistry in 1971, the 1978 Spencer Award for Research in Agricultural and Food Chemistry by the American Chemical Society, the 1988 Distinguished Service Award for Research by the USDA, the 1989 J.E. Bussart Award and Fellow of the Entomological Society of America and the 1995 Koro-Sho Prize from the Pesticide Science Society of Japan.
"I have lost an incredible mentor, and the scientific community lost the most preeminent pesticide toxicologist in the last two centuries," said one of Casida's former students, Sarjeet Gill, now the Distinguished Professor of Molecular, Cell and Systems Biology at UC Riverside. "John changed the way we investigated mechanisms of toxicity at all levels."
Casida is survived by his wife, artist and sculptor Kati Casida, sons Mark and Eric Casida and two grandchildren.

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INTERNATIONAL MEETING ON INNOVATIVE AND SUSTAINABLE APPROACHES TO CONTROL THE RED PALM WEEVIL

Following the Scientific consultation and High-level meeting on Red Palm Weevil (RPW) management (FAO-Rome, 29-31 March 2017) and the RPW steering committee meeting (FAO-RNE Cairo, 22-24 May 2017), a multi-disciplinary and multi-regional strategy document on RPW management was prepared by the RPW experts team, with the support of FAO, Centre International de Hautes Etudes Agronomiques Méditerranéennes (CIHEAM), Bari - Italy and NEPPO technical officers. Among the proposed actions, the RPW experts highlighted the importance of organizing an international meeting, which will focus on the identification and transfer of the applied innovative techniques to control RPW and the need to set up a multi-disciplinary international network of stakeholders. Hence, the working group also proposed

to postpone the 2nd FAO global meeting to 2019, in order to allow enough time for the establishment of the global platform and discuss the outcomes of this international meeting. Furthermore, in the framework of the 6th International Date Palm Conference (SIDPC), which was held at Abu Dhabi (UAE), a master session was organized on RPW highlighting the importance of using a multidisciplinary program based on an integrated approach to control RPW (i.e. regulations, awareness-raising, inspections, mass trapping, preventive treatments and removal of the infected palms). In the same session, the RPW trust fund was also presented and special emphasis was laid on research, capacity development and knowledge transfer.
In this context, CIHEAM Bari and FAO will organize a three-days meeting at CIHEAM Bari in the period 23-25 October 2018. This international meeting will focus on the use of a multidisciplinary approach, mainly aimed at the identification and transfer of new technologies/innovative methods to control RPW, covering a wide array of specific topics such as socio-economic impacts, early surveillance and detection of RPW, and eco-friendly control measures.
For more information you can check the link in the IAMB Website www.iamb.it

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EMERGING RISK OF ROOT WEEVIL IN MUSKMELON

Striped cucumber root weevil, *Acalymma vittatum* Howardi Barber (Coleoptera: Chrysomelidae) has become a problematic pest of muskmelon, *Cucumis melo* in Jammu & Kashmir, India. Muskmelon growers of several villages complained of crop damage of up to 80%, with the damage level increasing day by day during May, 2018. The initial damaging symptoms were yellowing of leaves, and slowly resulting into the complete wilting or drying of the plant. The wilting symptoms were similar to those caused by *Fusarium* wilt or root rots caused by *Monosporascus cannonballus* and *Pythium splendens*. However, on uprooting, damage by root weevil grubs were quite evident (see picture on the side). The adult beetles were noticed to cut small holes in the leaves, resulting in reduction in photosynthetic leaf area, however major economic losses were due to feeding by larvae that bore into the roots or base of the stem, causing complete wilting.

Similar losses were reported by muskmelon growers of the region during April – May, 2017, however the incidence was less (10 – 25%), which increased in the subsequent years, and it went unrecorded by the concerned officials. Further spread of the pest was halted by the below management strategies.

- Routine manual removal and destruction of adults and wilted plants.
- Monitor muskmelon crop of adjoining fields for any signs of pest incursion.
- Application of Neem cake @ 25 kg/ha in the root zone to kill the feeding grubs.
- Application of Kaolin clay to the plant foliage to prevent feeding by adults.
- Spraying Spinosad 45% SC, the biological insecticide, as soil drenches to kill the larvae.
- Application of granular insecticides, Cartap Hydrochloride 4% G.R. or Carbofuran 3G or Fipronil 80% WG.

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IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site www.plantprotection.org.

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