

Obituary

James (יִיִם, Jimmy) Krikun

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In Memoriam
James (יִיִם, Jimmy) Krikun
1932–2013

Jimmy Krikun was born Nov. 6, 1932, in Havana, Cuba. His parents had emigrated from Minsk, Belorussia, in 1929 to improve their difficult economic conditions. They did not have a higher education but their sons David and James became academics. Finally, in 1943 the immediate family succeeded in immigrating to the U.S.A. and settled in Brooklyn, NY. The Zionist spirit was inculcated in the teenaged Jimmy as a member of the youth movement “Habonim”, the builders. After high school graduation in 1951, a 9-month trip to Israel to work on agricultural settlements found Jimmy enamored by Israel and by a fellow workshop volunteer,

Leah, who would be his lifelong marriage partner. Upon returning to New York, Jimmy began studies in animal husbandry at the Long Island Agricultural and Technical Institute, Farmingdale, NY. Thereafter followed a 2-year U.S. Army service and entrance into the College of Agriculture, Cornell University, Ithaca, NY. Harlan Banks’ basic Botany course directed Jimmy’s enthusiasm to Plant Sciences and he completed a B.S. (Botany, 1959) and M.S. (Plant Pathology, 1963). The thesis research on the physiology of *Fusarium solani* f. sp. *phaseoli* was mentored by R. E. Wilkinson.

With the goal of settling in the south of Israel, Jimmy found a position at the Gilat Research Station in the Negev and immigrated in 1963 with his wife and their two children. He pursued both work at Gilat, and studies for a Ph.D. at The Hebrew University of Jerusalem on physiological aspects of Verticillium wilt of tomato; his supervisors were Matilda Chorin and Yoash Vaadia.

Jimmy devoted his research efforts to soilborne organisms, primarily pathogenic fungi but also nematodes, and to the arbuscular mycorrhiza root symbiosis. Soon after arriving in the Negev he was the first in Israel to recognize a wilt on peanut incited by *Verticillium dahliae*. With a keen eye, he discerned the wilt on important crops such as cotton, potato, tomato, eggplant and others. He enjoyed cooperative work with other scientists, extension specialists, ag-chem companies, and growers, and emphasized varietal resistance and soil fumigation for disease control. Jimmy’s concern with other important problems found him working and publishing on Fusarium crown and root rot (tomato), *Macrophomina* (melon), *Monosporascus* (melon, watermelon), *Spongospora* (potato), *Pratylenchus* (wheat,

alfalfa, barley, potatoes, clover, watermelon), *Meloidogyne* (tomato), and *Longidorus* (onion).

In the absence of other control procedures, Jimmy believed that only soil fumigation could provide growers with a means of growing certain intensive crops. He encouraged and participated in many experiments using metham sodium, diluted in water and applied via sprinklers, to control root diseases. During the time period before methyl bromide was identified as an atmospheric pollutant, Jimmy assisted in perfecting efficacious application techniques.

During the mid-1970's there was increased recognition of certain "endomycorrhiza", now termed arbuscular mycorrhiza (AM), as a contributor to plant health. The prevalent concept was that AM improved growth by increasing nutrient absorption. Krikun, with Y. Levy, made a significant, often-cited discovery with lemon rootstocks of equal age and size, with and without mycorrhiza. The symbiotic plants made a more rapid recovery from water stress and this related to water status and not growth or nutrient factors. When root diseases severely reduced yields of bell pepper being grown out-of-doors in the Arava region, pre-plant methyl bromide fumigation was used. In the high P-sorbing soils, transplanted seedlings stopped growing because of the lack of AM-fungi. Krikun, J. H. Haas and others studied the phenomenon and practical implications.

In 1994, Jimmy retired from the Gilat Center of the Agricultural Research Organization. Soon, his energies, acumen and aggressiveness in searching for practical crop root-health solutions were directed to unrecognized problems of air and soil pollution in the Haifa

metropolitan area to which he had moved. He co-founded the Haifa branch of the NGO Public Health Coalition and incessantly researched and publicized the biological threats and dangers, primarily from industrial sources. He was awarded a prize from the Israel Ministry of Health for these efforts and achievements.

After battling renal dysfunction, James Krikun passed away on July 4, 2013. His surviving immediate family includes his wife of 60 years, Leah, sons, daughter-in-law, three granddaughters, all residing in Israel, and brother David in New York.

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