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***Moringa oleifera* and *Moringa peregrina*, the "miracle trees", as super-foods from the ancient times of the pharaohs to the 21st century**

The Moringaceae is a monogeneric family consisting of 13 species distributed throughout the dry tropics of the old world. The most widely distributed and economically important *Moringa* species are: (1) *M. Oleifera*, one of the most nutritious plants in the world, originated from India and now planted globally as a multi-purpose crop for edible seed-oil, leaves as an excellent food supplement, fodder and medicine, and seed powder as a natural coagulant for water purification (2) *Moringa peregrina*, an endangered tree endemic to the Arab peninsula and Northern Africa with seed-oil used for food and cosmetics as far as the time of the ancient pharaohs. However, breeding efforts have been concentrated primarily on *M. oleifera* at the production of edible green pods and seed-oil, with very few reported varieties. We at Volcani Center initiated an R&D program on development of both species as new edible crops for seed-oil, seed-protein and fresh leaves under Mediterranean conditions: 1. We developed a NIRS method for non-destructive seed analysis of weight, oil and protein contents; 2. We developed *M. oleifera* as a fully mechanized field-crop for fresh leaves; and 3. We evaluated *M. oleifera* leaves as animal-feed and found it to significantly improve cows' milk nutritional value and design a more tender lambs' meat. We concluded that *M. oleifera* was better suited for leaf, seed-oil and seed-protein production under Mediterranean conditions. Nevertheless, production of *M. oleifera* x *Moringa peregrina* interspecies hybrids was suggested in order to enhance oil production and reduce susceptibility to local diseases.

Biography

Yiftach Vaknin has completed his Ph.D. at the age of 33 years from Tel-Aviv University and postdoctoral studies from UC Davis, Pomology Department, CA, and UMR INRA/UAPV Ecologie des Invertébrés, France. He is currently a senior researcher at the Department of Natural Resources, Volcani Center in Israel. He has published more than 35 papers in reputed journals and has developed new crops and innovative agro-technological methodologies for the food and bioenergy industries.

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