

Avocado Breeding in Israel

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Abstract. The breeding project is aimed at producing new cultivars that significantly outperform present commercial cultivars harvested in the same season. Our ideal is a high-producer under Israeli growing conditions, with high-quality fruit of medium size, a small seed, and high export quality.

The project is based on caged trees with bees as the pollination vector. Most of the cages contain a tree of each of two cultivars, thus reciprocals of each cross are obtained. The hybrids are differentiated from selfs by the use of isozyme genetic markers. So far about 150 crosses have been made with about 25,000 seedlings. The parents include such old and new commercial cultivars as: 'Fuerte', 'Benik', 'Hass', 'Pinkerton', 'Sharwil', 'Tova', 'Ettinger', and 'Horshim'. These are crossed among themselves and also with highly productive cultivars such as 'Regina', 'Reed', and 'Anaheim'; cultivars with large fruit such as 'Nabal'; cultivars with precocity such as 'Santana', 'Yama A', and 'Rosh Hanikra 4'; and selections with other desirable traits such as 'Bnei Darom'.

The first named selection from this project, 'Iriet', was released recently. It is an outcross of 'Hass'. The tree is medium-small with pear-shaped glossy fruit that weighs 300 to 500 g. It has an excellent nut-like flavor and a very small seed. It is harvested from mid-winter to the following mid-summer in Israel.