

## G.A.-13 Avocado Rootstock Selection<sup>1</sup>

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'G.A.-13' avocado (*Persea americana* Mill.) was selected to provide a rootstock for saline and lime conditions.

### **Origin**

'G.A.-13' was selected in the late 1950's from a group of Mexican seedling trees grown near the Gevar Am settlement in the Western Negev region of Israel, under adverse conditions of salinity. Although the plot was later abandoned several trees survived. 'G.A.-13' was selected because of its salinity tolerance and ease of rooting from cuttings.

### **Description**

'G.A.-13' is a large vigorous tree (to 12 m) with large dark green leaves having a distinct anise odor. The fruit is pear-shaped of medium to large size, (350-500 g), with smooth skin which changes its color from green to dark violet during ripening in September. The fruit taste is somewhat sweetish and the oil content is around 8 to 10%.

Seedling plants of 'G.A.-13' show high variability both in appearance and tolerance to salinity and lime-induced chlorosis; whereas vegetatively propagated plants show high uniformity and tolerance to lime-induced chlorosis and salinity.

### **Rootstock Performance**

In a comparison of 6 different vegetatively propagated avocado rootstocks grafted with 2 cultivars 'Fuerte' and 'Hass' and irrigated with saline water (350 ppm Cl), 'G.A.-13' showed high tolerance, close to that of the West Indian rootstocks (2).

In a comparison of 'G.A.-13' rootstocks either vegetatively propagated or of seed origin grafted with 'Fuerte' and planted in soil containing more than 40% lime and irrigated with water containing 270 ppm Cl, trees on vegetatively propagated rootstocks showed high tolerance and uniformity in comparison with variable performance of trees on seedling rootstocks (1).

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## **Propagation**

'G.A.-13' is relatively easy to propagate (up to 70 to 90%) by cuttings under mist (3).

## **Availability**

'G.A.-13' budwood has been sent to California for testing under saline conditions. A limited amount of budwood can be obtained from the authors.

## **Literature Cited**

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