

## Avocado Rootstock Characteristics

|   | Duke 7  | Dusa®   | Latas®  | Bounty®   | Velvick  | Zutano  |
|---|---|---|---|---|--|---|
| Propagation Type                            | Clonal Rootstock: Orchard uniformity, easier management   | Clonal Rootstock: Orchard uniformity, easier management   | Clonal Rootstock: Orchard uniformity, easier management | Clonal Rootstock: Orchard uniformity, easier management   | Seedling and Clonal Rootstock: Variability in orchard growth (when used as a seedling rootstock) | Seedling Rootstock: High variability in orchard growth                        |
| Graft Potential                             | Good  | Good  | Good  | Good  | Poor in New Zealand (as clonal rootstock); difficult to root, even through etiolation            | Excellent   |
| Geographic Origin                           | University of California (Riverside)  | Westfalia, South Africa (PVR protected)   | Westfalia, South Africa (PVR protected)                 | Bounty Farm (Kiepersol, South Africa) (PVR protected)   | Australia  | Fallbrook, California   |
| Parentage / Race                            | Duke / Mexican  | Survivor tree / Mexican x Guatemalan  | Survivor tree / Mexican x Guatemalan                    | Survivor tree / Mexican x Guatemalan  | Hybrid / West Indian   | Mexican   |
| Vigour                                      | Medium  | Medium: On soils without <i>Phytophthora</i> may have potential to be vigorous  | Medium  | Low-Medium  | High and well adapted to local conditions in Australia   | High  |
| Yields                                      | Medium: Similar to Dusa® under cooler climatic conditions   | Medium-High: Also known as precocious (trees tend to fruit about a year earlier than on other rootstocks); Westfalia reports yield increases of 20% of Hass on Dusa® when compared to Hass on Duke7 | Medium  | Medium-High   | Low-Medium as a clonal rootstock; Medium-High as a seedling rootstock in Australian trials       | High, but highly variable due to lack of genetic uniformity between each seed |
| Tolerance to <i>Phytophthora</i> (root rot) | Low-Medium  | High: Currently the preferred rootstock in California (USA) and South Africa; also used on replanting sites where <i>Phytophthora</i> occurs  | Medium-High   | Medium-High: Possibly more tolerant on heavier soils and can withstand short-duration "wet feet" episodes | Medium-High  | Variable, but significantly lower than most clonal rootstocks                 |
| Tolerance to salinity                       | Medium  | High  | High  | Reported as tolerant to marginal soils  | Selected for tolerance to salt and lime  | Medium  |
| Tolerance to frost                          | High  | High  | High  | High  | Less tolerant than Mexican or Mexican crosses  | High  |
| Notes                                       | No rootstock can withstand "wet feet" when soils are saturated for prolonged periods. Mexican stocks appear less capable of foraging for Boron and may require supplements in soils with low organic content. |   |   |   |  |   |
| Sources                                     | International trials and literature. Comparative research on New Zealand sites is under way.  |   |   |   |  |   |