ASHDOT 17 AND DEGANIA 117 AVOCADO ROOTSTOCKS IN AUSTRALIA

- Budwood of Ashdot 17 and Degania 117 avocado seedling rootstocks was imported from Israel by Birdwood Nursery in 1995 with IP managed by ANFIC in Australia.
- Ashdot is a good seed producer and, as such, many more Hass and Shepard avocado trees grafted to Ashdot have been planted throughout Australia than Degania.
- Both rootstocks are very important in Israel and were selected for their high productivity and also their ability to tolerate high salt and high soil alkalinity (Ben-Ya’akov et. al., 1995).

High Productivity:
- Both Ashdot and Degania have proven to be early bearing and highly productive when grafted to Hass in Australia (Le Lagadec 2011).
- Ashdot, in particular, when grafted to Hass results in a very compact tree with dwarfing characteristics showing good tree efficiency, lending itself to high density plantings (Fig 1). Further research is currently underway with Hass grafted to Ashdot rootstock to better understand its potential.

Fig. 1: Yield Efficiency (kg of fruit per m³ canopy volume) of Hass on different seedling rootstocks over five seasons at Childers, Qld.
Scion Overgrowth:
- A large percentage of Hass grafted to Ashdot seedling rootstock do show scion overgrowth. This was observed in the Childers trial and appears to be a characteristic of Ashdot seedling rootstock. Although there were some concerns in the early years of this trial, there was no correlation or significant difference between scion overgrowth and tree productivity or general tree health of any rootstocks reported. It may be worthwhile if possible to re-visit this trial to collect more data.

Special Requirements:
Although there has been no study or survey carried out with Ashdot rootstock throughout Australia, there is a strong possibility that both Ashdot and Degania may need a higher soil pH than other rootstocks for two reasons:

1. Both Ashdot and Degania with their origin in Israel have been selected under high pH soils high in Calcium. This is supported by the fact Ashdot in particular appears to be doing well along the Murray in the Robinvale, Mildura, Renmark and Waikerie areas that all have high Calcium and generally soils above pH 7.5.
2. Both Ashdot and Degania are very precocious and heavy bearing at an early age. This characteristic means that we must be sure to provide adequate early nutrition for fruit production, in particular Calcium. Also because of their Israeli origin, it is likely that they may grow better if soil pH is maintained at or above pH 6.5.

- Demand for Ashdot seedling rootstock continues to grow as it finds its place within the Australian avocado industry.
- It may be worthy to note that Le Lagadec, D., 2011 VII World Avocado Congress 2011 ‘Field evaluation of superior avocado rootstock with ‘Hass’ as Scions – Cairns, Australia. 5-9 September 2011, noted:
  “Seedling rootstock Ashdot appears to have dwarfing qualities and may be well suited for higher density plantings on fertile soils. However, given its potential susceptible to environmental and physiological stresses ‘Ashdot’ may require careful management”.

Information provided by Mr Peter Young, Managing Director, Birdwood Nursery September 2014.