

## ASHBOURNE HILLS AVOCADOES



*In 2003 a 30 hectare avocado orchard was established near Ashbourne on the Fleurieu Peninsula, about 80 km south of Adelaide, South Australia. Some 12,500 avocado trees were planted, mainly Hass variety, with Ettingers being planted as pollinators. There are smaller numbers of Reed and Lamb Hass. The orchard struggled to become fully established under conventional growing practices.*

*In 2006 Frank Belperio was appointed the new Farm Manager and he brought to the enterprise a passion for sustainable growing practices. Frank instituted an avocado growing program using fertilizer from a fish based product. This program has proven to be both environmentally sensitive and economically successful.*

*Sustainable growing practices have seen enormous benefits to the orchard including reduced input costs for fertilizer and higher levels of production.*

## STATEMENT OF KEY FINDINGS

1. The use of a fertilizer program which does not acidify the soil, compared to conventional growing practices, has led to increased microbial and fungi counts in the soil allowing for higher bio-mass nutrients in return.
2. Carbon storage is promoted through the fertilizer program. Organic matter has improved in the soil and, as a result, mulching is not required because Omegas 3, 6 & 9 convert into starches. This allows 88% of food intake to be sugars compared to the average 16% under conventional growing practices.
3. Ability to grow healthy trees with increasing floral bud wood and not vegetative growth. Bi-annualism as a factor is reduced through fertilizer program.
4. Significant reduction in input costs for the orchard and reduction in mortality factor from heat, wind and cold. Temperatures at Ashbourne range from over 40 degrees in summer to minus 4 degrees in winter. Frost control such as fans in the orchard are not needed. The frost actually causes the outer budding to burn, which in return causes the tree to flower and bud more inside the tree. The result is more fruit growing inside the tree protecting the fruit from burning in the sun.
5. Increase in dry matter levels. Last year's crop resulted in dry matter levels of 33% and 62.5% mono saturated level. This results in better tasting fruit with better shelf life.
6. Increase in pH levels in soils. From 6.1 in 2007 to 7.3 in 2011.
7. All heavy metals below NASA standards. Farm certified to Freshcare Environmental Standard.
8. Organic certification to be achieved by November 2011.