

Future Orchard 2012 – Stanthorpe, Queensland

Orchard Walk 13 September 2006

(Prepared by Allan McWaters DPI&F)

The first of the Future Orchards Farm Walks was hosted by Memo and Jason Mattiazzi at their Cottonvale orchard.

Growers, Agribusiness and DPI&F staff attended (27 people) the first of the four farm walks planned for this season to coincide with key stages of orchard management during the apple-growing season.

The programme started at 1pm with a brief introduction given by Mr Ugo Tomasel (APAL Executive board member) who outlined the some of the aims of the Future Orchards project. He emphasised the benefits that accrue from adopting higher density plantings which include higher yields and production efficiencies. Ugo highlighted the need for growers to focus on fruit quality and higher fruit packouts to maximise returns. Ugo then went on to introduce Mr Ross Wilson, the AgFirst consultant presenting the introductory Stanthorpe session of the project.

Ross is a very capable presenter with 17 plus years experience as an orchard consultant and apple grower in New Zealand. Ross took an interactive approach with the orchard walk participants. He set the scene with comparisons of intensive production systems throughout the world as compared to the Australian Apple and Pear industry. He highlighted how countries such as Italy have small farm sizes and very high early yields. He emphasised the need for intensive systems to have rapid yield accumulation within the first 5 years of orchard planting for the venture to be profitable. He indicated that World Class apple production figures of 10 tonnes per hectare are possible in the second year with yields increasing to up to 60 tonnes per hectare in the fifth year. These figures indicate that total yield accumulation after 5 years could be as high as 150 tonnes per hectare.

Ross went on to discuss in an interactive way with the growers about the pros and cons of intensive systems with tree densities of 2000—3000 trees per hectare. The “pros” included the benefits of higher yields, better fruit quality and management efficiencies. These were balanced against the “cons” which included high establishment costs and higher financial risk if the yield accumulation for the orchard is not realised in the first 5 yrs of production. Ross also asked the audience for their perspective on ideal future orchard plantings. Growers volunteered plantings ranging from 3x1 to 3.5x1m of varieties such as Jazz , Cripps Pink and Red strains of Gala. He also showed financial comparisons as per the Farm Walk Notes.

Ross also did a quick demonstration of how to measure Tree Row Volumes and Trunk Cross Sectional areas. He made the statement that the TRV of Australia trees is not high enough to capture enough light to maximise marketable yield. To maximise yield TRV's of 8000 to 10000m³ are required with dwarfing rootstocks and close to 20,000m³ with standard 106 rootstock. These TRV's are likely to achieve 60% light interception which is also considered necessary to maximise yield.

The Farm Walk concluded at 4pm after discussion of practical aspects of the orchard block and other points of interest in nearby orchard blocks. This discussion included pruning, limb bending and tree training, tree volumes, rootstocks and nursery trees, scion rooting and planting systems.

Issues:

- How the production statistics were calculated. Ie Based on trees in the ground to give the average.
- Quality of nursery trees and the fact that sometimes growers get trees on incorrect stocks to make up the tree numbers. This results in tree variability which is virtually impossible to manage.
- Rootstock vigour and relative performance. Ie Limited choices such as MM106, M26 and M9.
- Tree Row Volumes in Australia too low.
- 3500 trees per hectare appears to be the upper limit for intensive plantings because of the high establishment costs and limitations in yield increase above this tree planting density.
- More financial risk in establishing high density orchards which require the orchardists to be convinced that it will be worthwhile and be committed to stay in the industry well into the future.