



Business considerations for planting or top working a new variety

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THANKS,

Citrus Australia and Dave Monks
MFC



Market Driven business considerations

- **Market driven** decisions. What the market wants?
- **Study the market:**
 - **Target opportunities: Market gaps** and with differentiated products (**premium taste**).
 - **Avoid treats: Market oversupply.**
 - **Know your competition** and what they do in the global market.
- **Consumer priorities:**
 - **Eating Experience. Premium taste:** taste, flavour, balance brix acid, juice content,...., seedless,...
 - **Health conscientious consumers:** concentration of vitamin C and bioactives (lycopene: pink oranges and grapefruit, anthocyanins: blood oranges,...).
- **Retailer considerations:**
 - **Cover any gaps** and even up the supply for each citrus category.
 - **Differentiation from other retailers:** Percentage of seeds, number of residues (EU), exclusivities: first to market,...
 - **Profitability and margins** over than volumes.
 - **Long shelf life** and minimum waste.
 - **Competitive price** that require highly productive varieties.

Production driven considerations. Climate change and new varieties

- **Climatic change a new consideration** to decide on varieties and rootstocks.
- **Rootstocks for resilience and tolerance to stress and diseases.**
- **HLB-tolerant rootstocks a completely new chapter** in the global citrus industry.
- **Building resilience in mandarin breeding programs (hybrid vigour) for regular crops and strong fruit condition.**
 - **Breeding hybrids with a strong pool of gens** for stress and disease tolerance. **Hybrids of hybrids.**
 - **Selecting hybrids resistant to alternaria** due to fungicides restrictions and costs.
 - **Selecting hybrids less sensitive to chilling injury** (CT and Non-CT shipping at lower T^a to reduce decay. More critical in the future with less fungicides available).
- **Existing plantings: Building strength from farm to market.**
 - Nutrients: **Calcium/boron (cell wall), P (cell membrane) ,...**
 - PGRs: **GA, auxins,...**
 - Anti-stress compounds: **Glycine betaine, proline,...**
 - Biostimulants: **Seaweed and plant extracts,...**

Threat: When supply exceeds demand

- Can we anticipate the excess supply of certain varieties in global markets?
- **South Africa** and other southern hemisphere producers **increasing citrus volumes to Asia.**

Mandarins

- Global increase in new plantings of good quality mandarins, mainly Nadorcott and Tango.
 - **Future challenges to sell the world production** of mid and late season mandarins, mainly **Nadorcott and Tango.**
 - **While Nadorcott and Tango are in season, it is very difficult to sell any other mandarin varieties, unless that the taste is better.** Orri in certain markets: France,...
 - **Overlap of Nadorcott and early clementines between both hemispheres** in global markets.
 - Consequently, It is increasingly difficult to sell **early clementines of inferior quality and condition** to compete with Nadorcott from the opposite hemisphere.
 - **Opportunities for new hybrid mandarins with premium taste and productive.**



Threat: When supply exceeds demand

Navel oranges

- 2023 season was very difficult to sell Cara Cara for most Australian shippers.
- What do we need to do?
 - More marketing and promotions.
 - Higher brix (regulated deficit irrigation: RDI).
 - Stronger fruit condition (GA, Ca/B, GB,...).
 - Opportunities for stronger pink navel varieties with high brix before and after Cara Cara to extend the category.
- Except Cara Cara and some late navel selections, there has been **minimum plantings of navels in the southern hemisphere.**
 - **Balanced supply and demand for navel oranges in Asia**, but could change if South Africa move sales from the EU to Asia, following phytosanitary pressure from lobbies.

Other threats affecting business decisions on new varieties

- **Climate change:**
 - **Lower production**, higher costs and higher prices.
 - **Less fruit condition** and higher cost of claims.
- **Global crisis: Covid-19, Ukraine war, Gaza war,...**
 - **High cost in the supply chain** (growers, packers, sea freight,...).
 - **High retail price, limited promotions and reduced movement.**
- **General economic downturn.**
 - **Less disposable consumer income.**
 - **Reduction of sales and consumption.**
- **Imbalance between increased supply and reduced demand.**

Managing threats and opportunities on new varieties

- It has never been so important and difficult to decide on new varieties.
 - Strong pressure on suppliers for differentiation and innovation through new exciting varieties.
 - Strong alignment between the market and sales and marketing, packer and grower.
- When the market is under pressure, the Australian industry has to stand out as a reliable citrus supplier of superior quality and strong fruit condition that makes consistent good arrivals.
- Innovation through new superior varieties.
- In general, the South African industry is more proactive in accessing new varieties and the Australian industry needs to catch up on variety innovation.
- Critical: Premium taste, productive (low production cost) and seedless.

Opportunities: Specific market gaps

- Limited gaps left in global markets and the main opportunity is to **replace old plantings** with superior and stronger varieties.
- There are **seasonal gaps due to climate change** affecting citrus production in wide areas and reducing global supply. Short term and could be misleading.
- **HLB: Strong decline in global juice production:** Florida and now Brazil.
 - **Raised in juice price.**
 - **Potential opportunities for oranges.** Australia has a high cost of production and may not be competitive enough.
- Following are some gaps and opportunities on new varieties adapted to Southern and Western Australia.
- Navel oranges:
 - **High factory overrun price** could have an impact on the overall navel orange returns to growers.
 - **Strong early and mid season varieties with low sensitivity to albedo breakdown (higher packouts and less claims)** to replace old plantings of navelina, Leng and Washington Navel.
 - **Early and late coloured navels** to extend the sales period for Cara Cara and to widen and strengthen the category.
 - **Strong late season varieties with higher yields** (less sensitive to heat stress at fruit set and less alternative bearing) to replace old plantings.



Opportunities: Specific market gaps

- Valencia oranges:
 - **Limited opportunities for Valencia oranges** following the decline in production in Florida and now in Brazil.
 - **Dual purpose**: fresh and juicing varieties.
 - **Seedless Valencias with pollen sterile** to avoid seeds in Nadorcott and other mandarins that could **extend the packing season** for oranges.
- Mandarins.
 - **Nadorcott and Tango set the mandarin scene.**
 - Gaps for **strong early season seedless productive hybrids** (before than Nadorcott) and **premium taste** to substitute clementine mandarins in the global markets.
 - **Limited opportunity for strong and mid - late season seedless productive hybrids** and **premium taste** to compete with Nadorcott.
 - **Premium taste, the point of difference:**
 - Premium markets (taste the different).
 - Markets under pressure.
 - A complete new category (>14/15° Brix).

Citrus fruits are healthy. Controversy: High brix and health

- Citrus fruits are healthy:
 - Vitamin C. Positive effect on the immune system.
 - Bioactive compounds: Carotenoids (lycopene), flavonoids (anthocyanins), Limonoid,... Antioxidant, anti-inflammatory,... effects.
 - Moderate fructose that is buffered with fibre and metabolised by the liver.
- Premium taste (High brix) to repeat sales.
- Controversy: High brix and health.
- Trend towards low carbohydrate diets.
- Notes from **Dr. Robert Lustig**. Recognised doctor and professor in endocrinology and expert in metabolism and nutrition.
 - **Fructose** added in ultra process foods is a **mitochondrial toxin**.
 - When the liver is overwhelmed by fructose due to **excessive consumption**, it is converted to fat, leading to a **build-up of fat in the liver and visceral fat**, resulting in a number of **health conditions**.



Citrus fruits are healthy. Controversy: High brix and health

- **Low absorption:** Citrus fruits contain fibre that buffer the absorption of glucose and fructose in the liver.
 - Mandarins (100 g): 1.8 g of dietary fibre.
 - Oranges (200 g): 4.8 g of dietary fibre.
- **Low dose. Citrus medium – fructose fruits.**
 - 1 medium lemon: 0.6 g of fructose.
 - 1 medium mandarin fruit: 4.8 g of fructose.
 - 1 medium orange (navel): 6.1 g of fructose.
 - Other fruits: 1 Apple: 9.5 g of fructose, 1 cup of grapes: 12 g of fructose,...
- **Daily limit of fructose intake that the liver can take and metabolise,** below there is no harm.
 - 37 g adult men.
 - 25 g adult women.
 - 12.5 g kids.
- **Citrus fruit juice is a different matter** (more quantity and less fibre).