

CONSUMER PREFERENCES

Noteworthy shifts from pre-COVID-19 trends

A comprehensive report by Justin Chadwick, CEO of the Citrus Growers' Association (CGA) of Southern Africa, on how the South African citrus industry dealt with the challenges presented by COVID-19 in the 2020 season (*SAFJ* Feb/Mrch'21), points to interesting consumer shifts from pre-Covid-19 times. By Jon Roberts

Prior to COVID-19, the citrus industry had concerns around the oversupply of lemons and late Mandarins. There had also been concerns about the steady flattening in demand for oranges, specifically navels. However, as reported in said article, consumer needs have changed radically during the pandemic. Statistics show a dramatic reduction in visits to retail stores to avoid infection and therefore a preference for fruit with a longer shelf life (hard citrus can be stored at ambient temperature). Plus, the perception of citrus being a remedy for colds and flu and an immune booster showed a significant shift back to oranges from the previous trend towards easy peelers.

E-magazines in the fruit sector have been awash with articles backing these trends. The take-home from these many articles is that the following trends can be expected to continue in 2021 as the world continues its struggles to escape the clutches of this pandemic:

- Using food as medicine
- Cooking at home
- Online shopping
- New innovations
- Supply chains (the logistical and data components required to make the above happen).

In a recent *Forbes* article, commenting on the annual Food and Health Survey, Ali Webster, PhD, RD at the International Food and Information Council (IFIC) said, "The survey is a temperature check on how



Jon Roberts

American consumers were thinking about and making decisions around food and nutrition in the midst of a global pandemic.

"This is the first time in recent history that nearly everyone in the world has experienced some disruption to their lives and for most these changes impacted the way we eat."

Of people surveyed, "85% changed food habits, 54% of all consumers, and 63% of those 50+, care more about the healthfulness of their food and beverage choices in 2020 than in 2010; healthfulness is the biggest mover. Sixty per cent reported cooking at

home more, (interestingly 32% reported washing fresh produce more) and 33% reported shopping online more than in 2019.”

Most of these shifts bode well for the fruit industry, if the challenges are met as described in Justin Chadwick's article.

The “using food as medicine” concept is one of particular interest in my previous articles, given the innovations and new cultivar discoveries in the citrus industry.

The increased preference for hard citrus is also interesting and again, there are discoveries and innovations of new citrus varieties in the last few years that have been largely overlooked due to the intense focus on soft citrus. We are fairly well placed to fill this potential opportunity. Juicing of fresh oranges is another COVID-19 trend that should sustain demand for fresh oranges, especially Valencias.

The thread of these reports suggests that the world has had a wake-up call and that consumers are unlikely to radically change back to pre-COVID-19 behaviour, as we emerge on the other side.

Highlighted opportunities from previous CGA Cultivar Company(CC) articles include:

Valencia oranges The survey carried out by Acosta showed that 53% of Americans would stockpile more groceries in a third spike (constituting an increase of 15% from the start of the pandemic). We know that Valencias have a sturdy ambient shelf life, reducing the need for fridge storage. They're also the fresh orange of choice for juicing due to their low percentage of limonin, which prevents bitterness. With regards to demand for juice, an article in the *Floridian*, “Citrus Industry News: A New Baseline for Orange Juice Sales”, reported that even with a price increase, total volume movement of NFC orange juice in the first four weeks had increased nearly 23%. These trends bode well for this orange type, which



Consumer needs have changed radically during the pandemic. Statistics show a dramatic reduction in visits to retail stores to avoid infection and therefore, a preference for fruit with a longer shelf life like hard citrus.

has shown strong performance in recent years resulting in significant growth in plantings in SA:

- Growers should be looking to extending the season. The CGA CC manages several

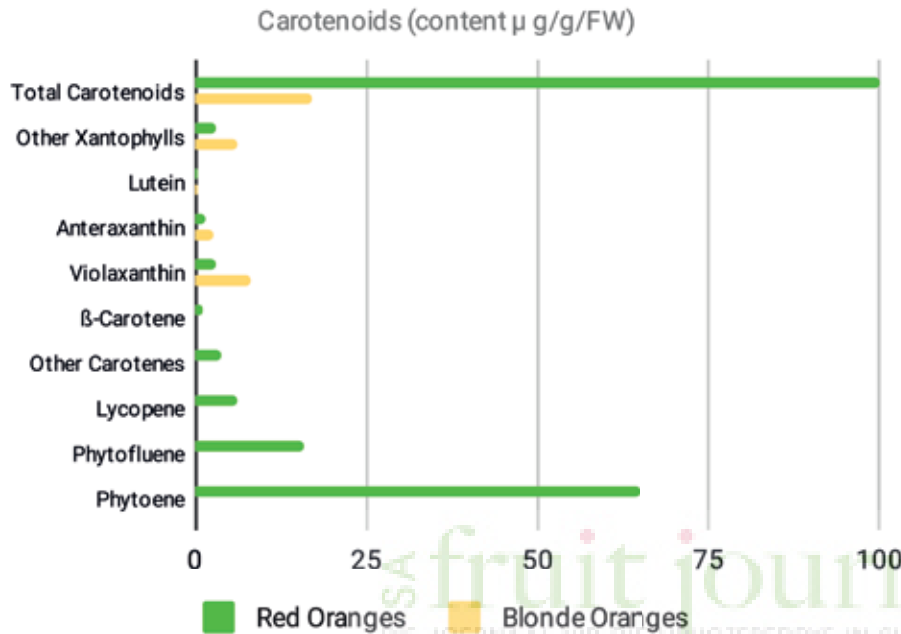
earlier varieties such as Turkey and Bennie Valencia that are well established on the front end of the season.

- New varieties, KAS early Valencia (TS Early), appear to be 2 - 3 weeks earlier than Turkey with better internal and external colour. The first mother block looks extremely interesting and trees for the first semi-commercial plantings are being multiplied.
- Ngonini Early, Beli Early and Ratho, early seedless varieties managed by us, are in evaluation and looking good.

Navel oranges I have written about the “food as medicine” research in previous articles in the *SAFJ*, relating to various bioflavonoids in fresh oranges, specifically Hesperidin and its derivative, Hesperitin. Recent articles show that Hesperidin has attracted the attention of researchers where, through various independent computational research, it shows that it would bind to the key proteins of the SARS-CoV-2 virus. The research suggests that the affinity of hesperidin to “dock” with these proteins is comparable, if not superior, to that of common chemical antivirals. The more articles of this sort become available on the internet, the more consumers will become aware that fresh oranges are an important component in building one's immune system:

- There are several promising early and late navels in evaluation: Addo Early, Sunrise Early, De Wet closed navel and late navels, Lazyboy, Caloma and Suitangi.
- Our Red Navels, Rosalina early and Valentine Late together with the Cara Cara, bring another plant nutrient to the table: lycopene. It's one of a number of carotenoids, a Vitamin A precursor present in oranges. Recent research by Professor Lorenzo Zacarias of the Spanish National Research Council, Agrochemistry and Food Technology Institute (IATA-CSIC), shows that these oranges have significantly more carotenoids than regular oranges.
- The featured graph shows how much

Red cultivars are higher in carotenes. Lycopene is absent in regular oranges. Phytoene and Phytofluene (two colourless carotenes) are accumulated in much higher concentrations in the pulp of the red oranges compared to regular oranges.



higher in carotenes the red cultivars are. Lycopene is absent in blonde oranges. Phytoene and Phytofluene, two colourless carotenes, are accumulated in much higher concentrations in the pulp of the red oranges compared to blonde oranges. Recent studies indicate that these carotenes may have relevant beneficial properties for health, and as nutricosmetics, including:

- Protection against oxidative stress
- Enhancement of anti inflammatory response
- Reduction of cholesterol in plasma
- Positive effects related to breast and prostate cancer
- Protection against ultraviolet radiation (UV).

Given the potential importance of hesperidin in oranges and the levels of carotenoids in red navels, there may be scope for its use in bio-products such as bio-fortified foods – another growing trend in recent times. ▶

ADVERTORIAL

A racking revolution in fruit stores

In the old days packed fruit was block stacked three pallets high using corner irons. This was great for cold store capacity utilisation, but terrible for pallet accessibility.

Barpro started by installing mobile racks in freezer stores and completed their first fruit store system in 1997. This system had four storage levels in the height and a useable capacity of 2504 pallets in an area of 1 320 m². Since the racking superstructure moves on electrically powered bases to create an access aisle, every pallet remains immediately accessible making

stock management straightforward and maintaining storage capacities almost at the level of block storage.

Mobile systems designed by Barpro provide maximum pallet capacity within a specific store, with the components either imported or built locally in Barpro's Cape Town factory. Service level agreements are encouraged. Barpro has installed over 300 mobile systems, some of which have been operating for well for over 20 years. The number of mobile systems within the fruit industry have increased significantly during the last 10 years.



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