



# MVCB Weekly News

25<sup>th</sup> June 2013

[www.mvcitrus.org.au](http://www.mvcitrus.org.au)

## Murray Valley Citrus Board

58 Pine Av  
Mildura VIC  
3500

Po Box 1384  
Mildura VIC  
3502

Ph: 03 5051 0500

Fax: 03 5021 1905

### Growers Technical Field Day

There are still a limited number of places available free to Murray Valley growers for the SCG/MVCB Technical Field Day.

Murray Valley Citrus growers will have access to an unprecedented panel of international experts over two days - 26 and 27 June.

Speakers include:

Dr Pat Barkley who has been involved with the Australian citrus industry for 47 years as a citrus pathologist with NSW DPI.

Dr Maria Forner-Giner is a citrus rootstock specialist who has been developing rootstocks for Spain.

Joshua Kanonich has extensive experience in both mandarin and orange production and has completed post graduate studies in the use of plant growth regulators in mandarins.

Dr Eran Raveh is a plant physiologist, and has conducted work on interpretative standards for assessing leaf nutrient levels in citrus and girdling for crop regulation.

Dr Nir Carmi is a plant breeder, and has been involved in the development of popular mandarin varieties including Odem and seedless Daisy.

Ben Barnett has extensive on ground experience in the establishment of 'shovel' ready solar projects and has worked in the Mallee for over 10 years.

Contact the Board's office on (03) 50510504 to register.

### Crop Regulation Using GA<sub>3</sub>

There are various management practice options open to growers to maximize fruit size, eg pruning, fertilizing, thinning, etc. These practices assist the grower to manipulate and balance crop load, allowing the tree to overcome biennial bearing and excessive small fruit sizes.

One crop manipulation option available to alleviate excessive crop load is to use a chemical foliar application to suppress a potential excessive leafless flower. These flowers drain the tree of valuable resources and usually end as small fruit.

Research has shown that using GA<sub>3</sub> foliar sprays in winter has a suppression effect on flowering. The only registered form of GA<sub>3</sub> in Australia for crop regulation in citrus is Ralex®. Trials of Ralex® found that application in the winter prior to an expected 'on' year suppressed flowering and resulted in increased fruit size.

The key to successfully using Ralex® is to understand the reason for and timing of the application. Two factors need to be considered;

- Firstly, are there trees with a potential for heavy flower?
- Secondly, the timing of application.

Likely varieties that flower heavily are eg. Navelinas, Lengs, mandarins, etc.

Optimum timing for application is the stage when buds differentiate (4-6 weeks prior to

**Diary Dates:**

**26 June 2013**

Growers' Technical Field Day.  
8:30am to 5:00pm  
NSW DPI Research Station

**27 June 2013**

Workshop with world leading production, rootstock and variety experts from Spain and Israel.  
NSW DPI Research Station

anticipated bud break). Varying levels of success can still materialize either side of this window.

For the Sunraysia area optimum timing is the 15<sup>th</sup> June – 7<sup>th</sup> July for Navels and 1<sup>st</sup> July – 30<sup>th</sup> July for mandarins. While following the label directions are a must there are other factors that need to be taken into account for a successful result.

- Do not apply to stressed trees and watch for frost conditions 3-4 days either side of application
- Can apply over current crop without delaying maturity, but care must be taken especially with mandarins
- Do not spray in cold wet conditions if current crop on trees

When applying this product for the first time, it is suggested to trial areas at varying rates and leaving an unsprayed section to compare with the final result at season's end. Ensure you harvest the treated areas separately gathering information including yield and packout figures, as it is sometimes difficult to see the rewards on the tree.

Costs benefits when using this product from known trials have demonstrated a positive return on investment.

Finally, if you have problem areas with excessive flower and small fruit size you should consider trialing this product. Start on a small scale; leave an untreated area for comparison, so as to gain knowledge and certainty using this technique.

**Health Benefits of Citrus**

Citrus can provide you with far more life-saving nutrients than just a shot of vitamin C.

Citrus fruits contain high levels of phytonutrients, which are plant-based nutrients with some powerful properties. One type of phytonutrient found in citrus, called limonoids, are responsible for the sour kick you get when you bite into a piece of citrus fruit — recent researchers discovered that limonoids are also responsible for a whole lot of sweet health benefits as well.

While the production of free radicals in our bodies can't be avoided, their damaging effects can be neutralised by eating a diet rich in antioxidant nutrients. Recently, researchers took note of two antioxidant nutrients from the citrus family: limonin and limonin glucoside. They found that the antioxidant properties of these two limonoid nutrients can reduce the risk of stroke, lower high blood pressure, and reduce inflammation.

Eating limonoid-rich healthy foods can help the body fight off cancer in three ways: they help to prevent cancer from developing; they slow the growth of existing cancer; and they kill existing cancer cells. Several studies have also shown that limonoids can help improve and prevent a wide variety of cancer types, such as pancreatic cancer, colon cancer, leukemia and breast cancers .

The influence limonoids exert on breast cancer is particularly impressive, as they have been found to impede the growth of cancerous cells in both estrogen-positive and estrogen-negative cancers. Most treatments are only able to tackle one specific breast cancer type. A study published in the Journal of Agricultural and Food Chemistry showed that not only were higher doses of limonoids safe and cancer fighting, but they also remained in the blood for a significant period of time, able to exert longer-lasting health-protecting effects.

Studies have shown that certain aspects of limonoids have powerful antibacterial and antimicrobial effects as well. In a study published in 2010, researchers found that limonoids inhibited the growth of Escherichia coli bacteria (E. coli), commonly found on certain foods and known to cause diarrhea, seizure, stroke, kidney damage or even death. Researchers are hopeful that this promising limonoid research could lead to a brand new therapy to combat strains of E.coli infections.

Citrus fruits, such as oranges, lemons, and grapefruit, have all been found to be rich in

powerful limonoid nutrients.

(Source: <http://www.business2community.com/health-wellness>)