Available only as an interactive PDF E-mailed to registered members

Available online FREE for a limited time





Editor

B Ag Sc, Grad Dip Ed Ph 03 9740 7136

Designed & Published by

Box 2492 Ph 03 9740 7136 Email: ftm@fruittreemedia.com.au

Advertising inquiries

Nick Morenos Ph 03 9740 7136 Email: info@treefruit.com.au

Subscription/registration

To subscribe/register: email subs@treefruit.com.au visit www.treefruit.com.au

Website

Current & past articles can be found at the Tree Fruit website. www.treefruit.com.au

Frequency

Tree Fruit is published monthly

Editorial

Opinions expressed are not necessarily those of the publisher.

Advertising

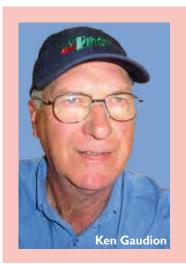
The publisher accepts no responsibility for the contents of advertisements. All advertisements are accepted in good faith and the liability of advertising content is the responsibility of the advertiser.

© Copyright 2014

All material in Tree Fruit is copyright. No part of this publication may be reproduced without the permission of the publisher.

While every effort is made to ensure the accuracy of contents, Fruit Tree Media accepts no liability for the information.

ISSN 1447-5618



All about **CHERRIES**

For information and professional advice, contact Ken mobile 0400 652 258 e-mail k.gaudion@bigpond.com

Think productivity. Think Felco 820 and 801.

Achieve new levels of productivity with the powerful Felco 820 and the new, fast and light Felco 801.

With a cutting capacity of 45mm, Felco 820 is ideal for heavier pruning, while Felco 801 allows precise pruning, even in tight spots.

Advanced electronics, interchangeable batteries and high performance features ensure Felco will help you improve your productivity.

Call 1800 730 257 www.felco.com.au





It is interesting to observe the current marketing strategies of our two major supermarket chains in relation to fresh fruit and vegetables.

What will be the impact on cherry promotion, and will there be added costs to the producer as a result of these strategies?

Coles seem to be pushing the 'local hero' kind of theme, showing the human face of producers. They use real growers in their promotions along with well known and respected local chef, Curtis Stone.

Developing a connection between producers and the consumer has to be a positive move; and teaching children where food comes from will help bridge the city-country divide.

Woolworths are promoting their stores with the help of an internationally recognized celebrity food name, Jamie Oliver, and Jamie's Garden.

This promotion funding is assisted with the imposition of a voluntary charge equal to 40 cents per crate.

A Woolworths spokesperson stated that this campaign will benefit the whole fruit and vegetable industry.

Local vs international celebrities

Australia does have highly respected nutritionists who might have a positive message, but perhaps not the same marketing power.

One would surely be right to question the cost of local versus international celebrity marketing.

One might suppose that if a charge is voluntary, then it is not a levy, and gets around the legal definition and obligations of that imposition.

With increasing rates of obesity in both children and adults in Australia, all efforts to increase local consumption of fresh fruit and vegetables should be applauded.

How this plays out in relation to domestic marketing of cherries by the big two is yet to be determined.

Supermarkets' celebrity-based marketing strategies



bu\$iness of fruit growing

Guess which orchardist used Drape Net









Dripe Net ®

Drape Net is simple and easy to use. We have had great results across Australia from • Hail • Sunburn • Wind • Birds • Bats. Improve your pack out the most cost effective way.

ORDER NOW FOR DELIVERY ON TIME

Michael Cunial 0415 663 413 mcunial@bigpond.com

Like governments, businesses must always be conscious of costs, and each grower should do what they can to keep them under control.

However, I still remember a Tasmanian grower making a presentation at a conference some years ago who said, "You can't save your way to a profit". His message: that income was a bigger driver of profitability than cost control.

Simple income equation

The primary production income equation is simply:

Income = area (hectares) x yield (bins per hectare) x price (\$ per bin)

In effect, higher income will result from an increase in any one, or more, of these elements.

This article considers some elements associated with orchard income (fruit sales).

I am not an agronomist and have drawn some information from the AgFirst website; specifically, Factors Critical to Orchard Profitability, July 2001. Please check out that website to read about agronomic factors in more detail

Optimising income (part 2)

Optimising income

Income = area (hectares) x yield (bins per hectare) x price (\$ per bin)



continued from last month

The income equation—yield

The higher the average yield, the higher is potential income.

That is, a block that yields 50 tonnes per hectare should produce more income than if it produces 40 tonnes per hectare from the same fixed inputs.

This yield fact is certainly true for processing fruit grown in the Goulburn Valley. Despite processor incentives to improve fruit quality, past study data indicated that growers optimised returns by picking as much fruit as they could from each block.

Market fruit works in a different way from processing fruit. For most growers marketable yield is the critical measure, not harvested yield.

Marketable yield is influenced by factors such as: choice of rootstock; an effective nutrition program; good canopy management; and infrastructure which can help avoid the worst seasonal conditions.

Many of these factors are directly within a grower's control.

Although expensive, more new plantings will be covered in order to maximise marketable yield. This could become more important if climate change results in more robust weather events.

To concentrate on marketable yield, it is not acceptable just to record harvested bins each year. A review of packing shed returns should be made to get an understanding of the quality of packout for each variety. This review should provide information about the volume that was packed and the proportion of that volume which was first-grade.

Taking steps to improve the yield of first-grade fruit for each variety should normally increase income.

The income equation—return per bin Bin return is influenced by two important elements:

• The average market price for a variety, which

- is generally determined by supply and demand
- Fruit quality, including size, skin finish, and internal sight, flavour and texture.

Of these two factors, fruit quality, or packout, has the biggest influence on orchard income.

Growers who can produce the fruit quality that the market wants will achieve the best returns.

The factors that influence marketable yield have been noted above.

Costs do matter

continued next issue

Although organic matter is important in soil, orchardists usually don't think much about it.

continued from last month

What is soil organic matter and where does it come from?

Organic matter in soil ranges from fresh unchanged organic materials through to highly decomposed organic materials.

So, the organic matter consists of soil biota (living organisms and roots), plant fragments, and polysaccharides, proteins, fats, lignin, waxes, resin, humus and charcoal.

Most organic matter is found in the surface soil, where most of the roots are, and so comes mainly from plants and soil biota.

Normal healthy roots continually release organic exudates into soil. Other plant residues, such as leaves and shoots, plus organic mulch or manures added by the orchardist, also contribute to organic matter in soil.

Relationship between soil organic matter and soil organic carbon

Sometimes a soil test shows organic matter as organic carbon; to calculate % organic matter, multiply the % organic carbon by 1.6.

Soil biota and decomposition of organic matter

Soil biota in the orchard include roots and beneficial and harmful organisms; and range from the smallest viruses (0.25 micron) to bacteria (0.3 micron), actinomycetes (0.5 to 2 micron wide) and fungi (less than 15 microns wide); to the largest animals, e.g. earthworms (> 10 mm wide). Altogether the soil biota can weigh up to 21 t/ha.

Soil biota use the organic residues for food and energy, and successively decompose complex organic molecules and release other organic compounds that other biota can use to build into new organic molecules, or store in their own bodies.

At the same time the biota release carbon dioxide. energy and water; inorganic materials such as nitrogen, phosphorus and sulphur; and micronutrients that plants and biota can use.

There is generally a high turnover of biota in soil which continues to add organic matter.

Fine roots and hyphae do not live long in soil but are fairly quickly replaced by new roots and microorganisms.



Poor structure: This hilled-up soil in the tree-row contains little organic matter, so is easily eroded by water. Nutrients and water are lost to the trees.

Amount of organic matter in soil

The amount of organic matter depends on:

- amount and quality of the organic residues returned to the soil
- soil texture, depth and density
- soil pH
- temperature, water content and aeration of soil
- microbial population.

Organic residues of high quality—those with a low ratio of carbon to nitrogen (C/N of <18)—are decomposed quickly as there is enough nitrogen to stimulate microbial activity. Organic residues with a high C/N (> 60) are decomposed very slowly.

Simple sugars, simple proteins and starch are easily decomposed, whereas hemicellulose, cellulose, fats, waxes and resins are slowly decomposed.

Lignin comes from cell walls of plants and some algae, and is decomposed very slowly. Charcoal is inert so is not further decomposed. Eventually the complex organic matter, humus, is produced and darkens the soil

For each soil there is a limit to the amount of organic matter that it can store. Organic matter is more quickly decomposed in sandy soils, so they contain less organic matter than do clay soils.

The deeper the soil, the more organic matter it can hold.

Soils that are less dense are usually better aerated and drained, and are warmer with a longer growing season so that plants grow better, releasing more organic residues into soil and supporting more biological activity.

continued next month

Soil organic matter (part 2)

*Dr Judith Tisdall is a soil scientist and a former Senior Lecturer in Soil Science at La Trobe University, Melbourne, Australia,



Contact Russell email: russell@insense.com.au

This is a series of articles about practical IPM—the IPM carried out by orchardists and advisors—those of us who walk the orchard, monitor, and see what is out there: and then advise on pest, disease and weed control.

The modern highdensity orchard represents a very significant longterm investment that faces many environmental perils.

With 3000 trees per hectare or more of patented cultivars growing on multi-wired trellises, such systems must generate a significant return on investment that begins early in the life of the orchard and that is sustained for at least 15 years.

continued from last month

Alternatives needed

Sunburn is a very significant cause of fruit damage.

One widely used technique to reduce sunburn is the combined use of overhead sprinklers or misting (for evaporative cooling to reduce fruit skin temperature).

Washington State University Tree Fruit Research and Extension Centre, plan to conduct several longterm commercial trials in Washington under the high sunlight conditions in central Washington, especially for high-value apple cultivars that are sunburn sensitive.

Besides the potential to eliminate hail risk and sunburn, if nets are allowed to come to the ground and enclose the orchard block, they also provide the potential to exclude damaging birds and insects.

Nets also have the potential to eliminate the need for overhead irrigation for sunburn control.

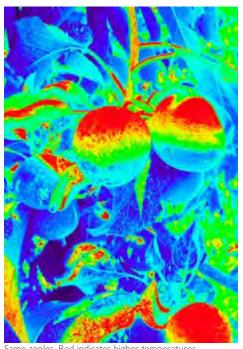
If so, this may substantially reduce orchard water use requirements and periodic soil waterlogging. Further, this may reduce soil nutrient leaching, pesticide wash-off, and disease pressure (for example mildew, target rot etc.) in the orchard.

Insurance in intensive fruit production (part 2)

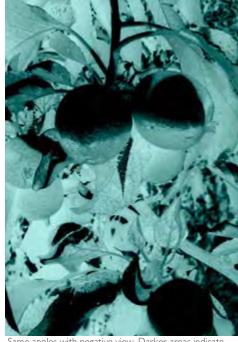
Insurance in intensive fruit production (part 2)







Same apples. Red indicates higher temperatures.



Same apples with negative view. Darker areas indicate high temperatures.

Need a web site, or looking to refresh your old site?



We specialise in web sites for agribusiness.

Nick: 0417 145 452 👯 info@fruittreemedia.com.au

Sunburn protectants

Sunburn protectants utilising kaolin clay such as SunCrops can reduce the severity and incidence of sunburn in apples.

A number of studies have confirmed that kaolin clays like Suncrops, reduces the sun bleaching effect in Granny Smith apples.

While not eliminating the direct effect of heat in mature apples, kaolin clay products reduce sun damage to fruit.

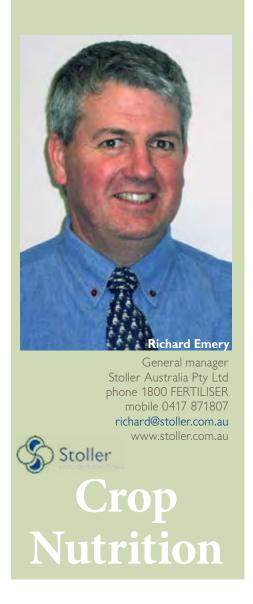
The most important aspect to sun protection is to plan early, act early and act decisively.

SunCrops and other similar products can reduce sun damage on fruit, only if they are applied before the damage occurs.

A planned approach is needed to have these products on before the first heat event.

Whether growers buy hail insurance, invest in overhead cooling, use sunburn protectant products or nets, or a combination of these, it costs money to mitigate potential losses.

A thorough economic analysis based on experimental data from commercial trials is necessary to help determine how best to protect your investment.



The Stoller philosophy is all about **Unleashing the** power of plants'.

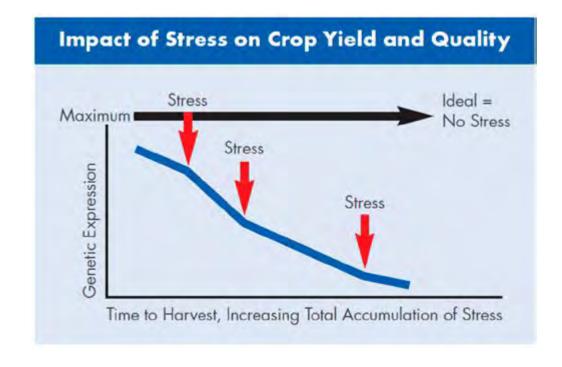
At the commencement of its life, every plant carries a certain genetic potential. Often by the end of the season, some of that potential has been lost—the aim is to limit the loss as much as possible.

With trees there are some key things to consider when establishing or replanting an orchard.

Are all manageable limiting factors removed?

A young plant will quickly find the most limiting factor. It could be lack of a specific nutrient, a soil imbalance such as high sodium, or an irrigation issue limiting the availability of soil moisture.

Elements such as zinc and the balance between zinc and phosphorus can be critical for early growth.



Are all stress factors identified and controlled?

If young trees are exposed to adverse environmental factors, then steps can be taken.

For example, if trees are to be planted in windy conditions, this can be anticipated by staking the trees or building/growing wind blocks.

Stoller offers a fertigation treatment called RootFeed which is a balanced nitrogen-calcium combination with cofactors designed to quickly build root mass and improve anchoring of young trees.

Is the transition from nursery to orchard managed?

Fast even establishment leads to an orchard with balanced growth.

This has many benefits later on, so that trees are at a matching growth stage and can be treated the same as they progress with minimum need for replant or efforts to balance up the trees later.

Maximise performance of new plantings SEE MORE www.treefruit.com.au

Maximise the performance of new plantings

Treatments from Stoller include:

Nursery

Dilute Foli-Zyme for Root dipping Bio-Forge for stress management

Fertigation

Nutri-pHLow and ClearStart (Phosphorus and a complete nutrient addition) RootFeed (Amine Nitrogen and Calcium) AquaCal (Sodium Displacement)

Foliar

Foli-Zyme for healthy growth Chelated Nutrients to remove limiting factors

Contact Stoller for more information.

Here is an example of a Stoller tree program: http://stoller.com.au/images/stories/Programs/ Cherry program 0810.pdf

Also, young trees that have healthy root and top growth early, tend to 'grow through' many issues that a slow growing tree is particularly susceptible to (such as root disease, salt concentration and heat and cold extremes)

Stoller programs start in the nursery with a range of specialised products designed to enhance root growth and minimise the stress associated with replanting into a field environment.

Our goal

These are just a few items related to nutrition and stress where there are some simple steps to make the transition from nursery to orchard establishment smoother and less stressful on the plant.

There are a range of other management and commercial considerations also required (such as variety selection, site selection, soil preparation).

Stoller's goal is to assist mainly with nutritional balance and minimising the impact of stress. This allows the genetic expression of the new trees.

Stoller can offer tailored programs to address specific cases.

Communicate effectively

• PRINT • WEB • E-MAIL

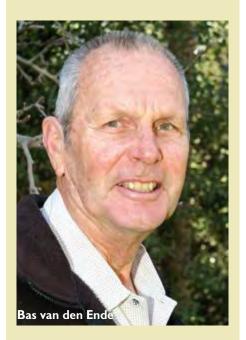
Promotional material
 ad design
 magazines

• booklets • newsletters • websites • editing writing •testimonials • advertorial

photography

Talk to us first

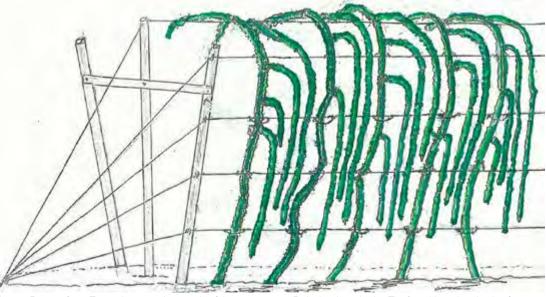
Phone: 0417 145 452 info@fruittreemedia.com.au www.fruittreemedia.com.au Promoting agribusiness



The Tatura system of growing fruit is once again coming to the fore with a cactus fruit in north Queensland.

The cactus fruit is Pitaya, a native to Mexico, and is now grown in Central America, east Asia and south-east Asia, Indonesia, southern China, Hawaii, and Israel as well as in Oueensland and northern NSW.

Pitaya has become a major fruit crop in Vietnam where it was given the name 'Dragon Fruit'. We use this name in Australia



Dragon Fruit on Open Tatura showing only one side of the two canopies. Each plant has a leader. The 3 or 4 branches develop from the top-half of each leader and only from one side of the leader. The branches are trained downwards and are 200 or 250 mm apart when there are 4 or 3 branches respectively.

continued from last month

The Open Tatura design

The 3.0 m CCA-treated pine poles are spaced at 6.0 m with a cross-bar on each frame.

The poles are angled at 22.5 degrees to the vertical.

The trellis has four wires on each side. In the centre of each frame is a 3.6 m vertical pole with a central wire spanning these poles (total, nine wires).

The two top wires and the central wire are insulated with polyethylene tubing to prevent the leaders from breaking off when they are draped over these wires.

Anchors are of the 'dead man' type or are screw anchors.

Dragon Fruit on Tatura trellis (part 2)

Bas van den Ende and Ian Meadowcroft* *lan Meadowcroft is a fruit grower at Feluga near Tully, Queensland, and is experimenting with Dragon Fruit on Open Tatura.



The red Dragon Fruit has a leathery bright red skin and sweet kiwi-like flesh.



The canopies will be about 2.20 m tall when fully developed, and can be almost entirely managed from the ground.



Dragon Fruit cuttings were planted 0.50 m apart on a diamond shape, giving each plant 1.00 m on either side.

Dragon Fruit on Tatura trellis

Training the plants

Planting is on a diamond shape, which means that each plant is spaced 1.0m on either side of the trellis.

Each leader is encouraged to grow to the top wire as soon as possible and is then draped over the central wire and attached to the opposite top wire.

As branching commences, three or four suitable branches are retained from the top-half of each plant on the south-end (right side) of the plants (row orientation is north-south).

When the branches have sufficiently developed, they are trained downwards with plastic ties that securely clip on the high-tensile wire. Thus, the main leaders and pendant branches are spaced at 200 or 250 mm for four or three branches respectively.

If branches become unproductive over time, new branches can replace them. Unwanted branches are frequently removed.

Tropical fruits and Open Tatura

Of the many tropical and ultra-tropical fruits already grown on Open Tatura, Dragon Fruit has the potential to further expand and sustain a viable and profitable fruit industry in north Queensland where conventionally-planted trees were recently devastated by two cyclones (Larry in 2006 and Yasi in 2011).

Drape Net quiz time!











mobile: 0415 663 413 e-mail: mcunial@bigpond.com

Question

Answer

In the picture above, which apples were covered by Drape Net?	. 'A'
What costs a fraction of the price of structured net?	Drape Net
Which netting system has outperformed structured net in Australia in the last 10 years in extreme hail events?	Drape Net
Which netting system can cost as little as \$40 per 100 metres of tree row over 10 years?	Drape Net
Which netting system can be applied and retrieved in-house, without the need to wait or pay for contractors?	Drape Net
What's the weakest part of structured net?	The structure!
Which netting system can easily be moved from block to block, and stored out of sight and out of the elements?	Drape Net
Which netting system does not affect pollination?	Drape Net

Why aren't you using Drape Net?

Transtak® Engineering & Equipment bin carriers & aluminium picking ladders

Transtak Engineering & **Equipment manufacture** and supply the Transtak® range of fruit bin carriers and aluminium picking ladders to orchardists.





Bin carriers

The Transtak bin carriers are either front mounted or towed by the tractor, with capacities to carry three, four or six bins at a time.

The Transtak 1500L low-lift carrier will load and carry three bins; the Transtak 1500LE lowlift carrier is fitted with fork extensions to carry three or four bins where the orchard permits.

The Transtak 3000LT will carry 6 x 500 kg bins and is also fitted with forks tilt to assist with loading of bins.

The Transtak 3500N carrier has the capacity to load and stack bins enabling this carrier to move six full bins and six to nine empty bins at any time. This carrier has forks tilt function and hydrafloat accumulators fitted for a smooth ride.

Aluminium ladders

The Transtak aluminium picking ladder is the strongest high tensile aluminium ladder available to the fruit grower, having been designed and constantly improved over 20 years.

The ladders are rated at 180kg industrial ladder AS/NZ 1892.1:1996 standards.

Ladders available from our Australian distributor E.E. Muir & Sons Pty Ltd—branches throughout Australia; IK Caldwell Rural in Northern Victoria; Serv-Ag stores in Tasmania.

Visit www.eem.com.au for contact details of a store

Bin carriers: Visit www.transtak.co.nz to view a demonstration video of some carriers in operation. Enquire online—we will be pleased to quote a price for delivery to your orchard.

E-mail Peter Guy transtak@clear.net.nz

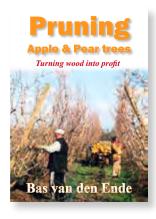


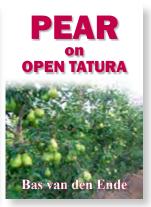
MANUALS on orchard management & high density orchard systems

- Written by highly respected fruit production consultant (retired)
- Australian focus but applicable internationally Popular tree crops
- Comprehensive Many photos and illustrations
- Used as a teaching aid • Used by commercial orchardists, orchard managers, hobby farmers & enthusiasts
- Ready to download and print—or carry the PDF files around on your laptop, phone or tablet for quick reference!



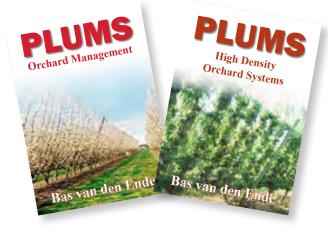


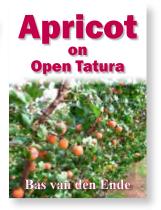












For more information, click on a manual to visit the website.

Multipurpose, high-strength, wettable imidacloprid granules



Green peach aphid (inset) and damage.

Australian horticulture-including apple and stone fruit growers-now has the most comprehensive imidacloprid product label, with many major pests and a broad range of crops recently added to the Senator 700WG label.

Senator 700WG's greatly-

expanded label now includes foliar/plant application for green peach aphid and black peach aphid in stone fruit; and soil application for woolly aphid in apples.

The registration allows no more than one soil application per two years for apples. A soil application of Senator 700WG or another Group 4A insecticide must not be followed by a foliar Group 4A spray to the same crop.

The wettable granules provide:

- · major storage and purchasing advantages, with one high-strength product replacing multiple different products
- high concentration and low-use rate reduce the volume of product for measuring, transport, storage and package disposal compared with liquid-based imidacloprid products
- easy mixing and measuring, low dust and excellent shelf life.

Contact Chris Ramsey, Crop Care Australasia phone 07 3909 2004 mobile 0439 208 303 e-mail Chris.ramsey@cropcare.com.au www.cropcare.com.au

Best fruit packing solutions

DNL Australia offer the best solutions to pack apples, pears and stonefruit into bags or punnets and has been chosen as the preferred supplier for new automated systems.



DNL Australia has introduced a unique system that allows apples to be flow wrapped without the need for a tray, creating an attractive and more cost effective solution to present to retailers.

The Redpack 'trayless' flow wrapper is the only machine that has been specifically designed to gently handle fruit and allow quick and easy line changes for the packer—making it a very versatile alternative to a conventional flow wrap machine.

If the market changes you have the flexibility to switch over and use trays.

DNL Australia represent and service some of the world's best names in high-quality, highperformance packhouse equipment, so visit our website or call us toll free to see how we can be of help to your company.

Contact DNL Australia Pty Ltd Phone toll free 1800 783 229 Michael Brooke: mobile 0488 287 383 e-mail sales@dnl-aus.com web www.dnl-aus.com

Orchard development: plant or net first?

This is a common question fielded by NetPro staff from growers or investors planning to develop a new orchard area, or to replant.







Trees just planted as structure goes up. Irrigation already

The ideal situation would be canopy construction first, however, the benefits of early netting must be weighed against cash flow.

Advantages of netting early in your orchard evolution include faster tree development under net, earlier maturity and increasing volume of production.

Additionally, if you plan to trellis your trees, the internal support poles for a permanent structure can also be used to support the trellis.

If you are unable to net first, keep in mind that if you can space your rows 3m or wider, you can retain the option to net later (this allows access for canopy construction).

In conclusion, if during orchard redevelopment you are intending at some stage to put up a permanent protective canopy, it is certainly a good idea to plan for all stages right from the start.

Involving NetPro right from the start of your development means access to a wealth of planning and design resources; and if you are able to invest in a protective canopy up-front, you will have larger returns sooner from your investment.

Contact Lindsay Adams mobile 0408 138 597 e-mail lindsay@netprocanopies.com

Eco-flo soil improvers



To get the results you are after, insist on using the best.

OCP's range of soil improvers includes Eco-Flo Lime, Eco-Flo Gypsum and Eco-Flo Dolomite. These are fast-acting liquid formulas enriched with high quality Acadian seaweed. Each one is BFA Registered Organic.

Eco-flo gypsum is a fast acting liquid claybreaker that breaks up compacted clay soils and improves drainage. It reduces sodium (salt) build-up from saline irrigation water use, and strengthens plant growth and fruit production by adding calcium, sulphur, and seaweed extracts to the soil.

Eco-flo dolomite corrects acid soils and boosts calcium and magnesium levels. It also strengthens plant growth and fruit production by adding calcium, magnesium and seaweed extracts to the soil. The ratio of calcium to magnesium better reflects plant needs compared to powdered dolomite. It's fast acting due to the very small particle size.

Eco-flo lime offers superior acid soil correction with high calcium levels.

It corrects acid soils caused by existing soil chemistry and artificial fertilisers, and strengthens plant growth and fruit production by adding calcium and seaweed extracts to the soil.

For more information contact Scott Brady mobile 0488 717 515 scott@ocp.com.au see the range here

(advert design is FREE!)

ONLY \$66 per spot

Click an advert to visit the website or send an e-mail!





Link to your website

Click Here

Link to your e-mail Click Here



