



TOMATO TOPICS



Know-how for Horticulture™

NEWS and INFORMATION
FOR THE PROCESSING TOMATO INDUSTRY

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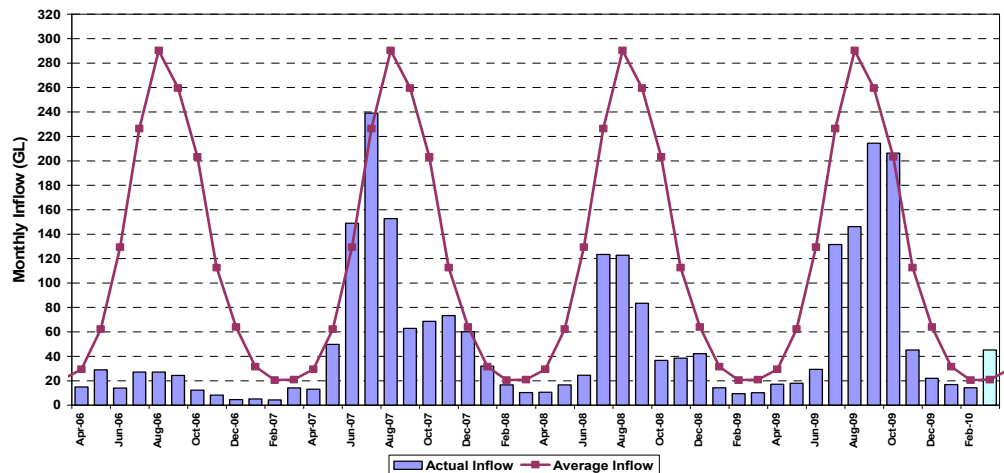
2009/10 Season Update

INFLOWS TO LAKE EILDON
Effective 30 March 2010

This years tomato harvest and processing commenced on the 27th January, but only continued for a few days before closing down. The harvest then recommenced on the 3rd February, again only for a few days, while fruit continued to ripen in the field. On the 9th February the harvest began and processing continued. The harvest then continued until Friday 5th March when heavy rain fell across the region. This rain caused everything to cease for a period of just under a week.

As a result of the heavy rain Lake Eildon inflows during March have been above the long term average. This has resulted in an increase in irrigation allocations, with the Goulburn at 69% on the 15th March. As a result of this increased allocation temporary water is now trading for less than \$90/ML, a level which has not been experienced in March for some time.

At the present time a large number of crops across the whole production region are awaiting harvest, with all growers hoping no rain falls for some time.



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On-Farm Irrigation Efficiency Program

The first round of the Rudd Government's \$300 million *On-Farm Irrigation Efficiency* program, worth \$100 million, will save as much as 60 billion litres over a year – savings which will be shared between the environment and irrigation farmers.

The announcement was made by Senator Wong on the 19th March 2010 of the successful delivery partners for the first round. The Australian Processing Tomato Research Council Inc. received in-principle approval to proceed to Stage 2 and receive up to \$11.71M in funding, to be spread across the whole processing tomato industry.

The project titled, "Improved water use efficiency for the Australian Processing Tomato Industry" will result in an additional 2,000 ha of ground within the region being converted from flood/furrow irrigation to sub-surface drip. The project will enable growers to use a more efficient irrigation system for not only the production of processing tomatoes but also other rotational crops including cereals and lucerne.

This project will enable processing tomato growers to install new sub-surface drip irrigation systems in ground previously irrigated via flood or furrow irrigation. This in turn will result in a higher portion of the crop being grown on "new" country while at the same time leaving the "old" sub-surface drip irrigation blocks available to irrigate other rotational crops.

Processing tomatoes have been produced during the past year using both furrow and sub-surface drip irrigation. Based on the actual yield data from the 2008/09 season the average yield from furrow irrigated crops was less than 75 t/ha, while the average yield from sub-surface drip was around 100 t/ha. Water use also varies between the 2 systems and depending upon season, an average of 2ML/ha water savings results from the use of sub-surface drip. This project will require growers to return 50% of their estimated water savings, or 1ML/ha, to the Federal Government. In return the grower will receive funding through this program to install sub-surface drip.

This announcement has been great news to the industry, and will not only reduce on-farm water use by approximately



2ML/ha, but also increase crop yields, thus increasing the long term sustainability of the industry in the region.

WPTC/CLFP Expo

January 30 – February 3, 2010

Louis Chirnside

The **World Processing Tomato Council** (WPTC) holds a meeting to coincide with the California league of Food Processors (CLFP) Expo which is held in Sacramento, California every year. Bruce Weeks, Louis Chirnside and Roger Nolan attended this event representing the Australian Processing Tomato Growers.

The CLFP Expo is a combination of an exhibition of food processing equipment with a large focus on processing tomatoes, and a series of industry meetings which coincide with the release of Californian contract intentions for the 2010 tomato season.

2009 was the largest production year on record. There have been significant cutbacks in contract intentions in both Europe and California, however, the general consensus is that these cutbacks will not be enough to balance production plus current inventories with increasing consumption, therefore inventory levels will remain high.

The group also attended the Tomato Products Wellness Council (TPWC) meeting which has now compiled a book which has over 450 research papers relating to tomatoes & health. Liz Mann has a hard copy of this if anyone is interested, or it may also be viewed at <http://www.tomatowellness.com/report/>. The TPWC is also initiating new market research to determine which messages are going to influence the consumer. When appropriate it has also been suggested that the issues of sustainability and carbon footprint should also be included in the message as a standard for more healthy living.

During the World Processing Tomato Research Council Andrew Yu made a presentation of the recipe contest recently launched in China at the initiative of WPTC and CCFIA. The contest website is at www.tomatoprc.com. Altogether 32 winning recipes will be selected and later used for communication in China and abroad. The overall winner will be awarded a trip to the congress in Estoril, Portugal, where they will be presented with their prize. The winning recipe will be prepared as a meal for delegates during the congress.

Two books have been released based on tomatoes that may be of interest. The first is an Italian cookbook (COOKING DINNER, Simple Italian recipes everyone can make) co authored by Claudia Pruett, who attended the Melbourne congress. The second book, RIPE, the search for the perfect tomato is by Arthur Allen who joined the WPTC trip to China in 2007, where he conducted many interviews during his research.

Andrew Yu also presented a bid for China to organize the 2012 WPTC congress in Beijing. In the absence of any other candidature, and in view of the growing importance of China as both a processing country and its market potential, the proposal was unanimously accepted.

Tomato/Potato Psyllid

(information obtained from <http://www.crop.cri.nz>)

As mentioned in the December 2009 Tomato Topics the Tomato/Potato Psyllid is a real threat to the Australian Processing Tomato Industry. Currently located in New Zealand across the tomato and potato production regions this pest has resulted in an increase in the cost of applied pesticides and potential reductions in crop yield.

Recently Liz Mann and Matt Wright (Cedenco) visited the processing tomato production region in New Zealand to gain a greater understanding of this pest. A number of paddocks were visited and a range of symptoms were observed in each.



Excess plant sap ingested by the insect is excreted as Psyllid sugar, shown above.



The adults have white markings on their backs in front of the wings (thorax), clear wings, and lines on their abdomen (located beneath the wings) that separate the abdominal segments. When first hatched the adults are light yellow/brown in colour but after 5 days they become grey/black and white banded in colour. The adults also “jump” when disturbed on the plant.

Other life cycle stages observed in New Zealand included the nymph and egg. The eggs are most obvious along leaf edges, and have a stalk.

When feeding the nymphs inject saliva into the plant, causing “psyllid yellows”. This can cause tomato leaves to ini-

tially go purple around the edge and curl upwards.



Processing tomato growers in New Zealand are applying pesticides every 7-10 days to control the pest. We did visit a crop which missed a spray during full flower that showed a potential 50% reduction in yield, arising from poor fruit set and small fruit.

The psyllids appears in large numbers during the months of Dec/Jan in New Zealand. Due to the higher temperatures in Australia we may see them earlier in the season than this, but our higher temperatures later in the season may reduce larval and adult survival, although this is not confirmed.

Early control of the psyllid is achieved by using imidacloprid as a transplant drench in the nursery. This is then followed approximately 6 weeks later with a range of insecticides every 7-10 days. Insecticides currently used following crop establishment in New Zealand include, Spirotetramat, Spiromesifen, Abamectin, Spinosad, Diazinon, Methamidophos, Deltamethrin and Karate Zeon. Carbamates, such as Lannate should not be used on the psyllid as it is thought to actually promote the development of the population (<http://www.ipm.ucdavis.edu/PMG/r783303011.html#MANAGEMENT>).

If non-systemic insecticides are used then spray coverage is critical in controlling this pest as nymphs may be located on the underside of the leaves.

This insect pest has potential to impact upon the industry and if it does arrive in Australia must be clearly identified immediately if any eradication or control is possible.

NB. Liz & Matt washed clothes before leaving NZ and had their shoes/boots treated by quarantine upon arrival in Melbourne to prevent any unwelcome “hitch hikers”.

Silverleaf Whitefly (Taken from Vegie Bites no. 38)

The Silverleaf whitefly (SLW) - biotype B, a major pest in vegetables, cotton and soybeans, has recently been detected in Griffith and Whitton. This pest can develop chemical resistance quickly, especially to synthetic pyrethroids and organophosphates and has caused serious problems in Queensland, Northern NSW and parts of Western Australia.

It was first identified in the Riverina in 2009 on a Griffith property and was found near Whitton early this year. This pest first arrived in Australia in the early 1990's and is primarily found on cucurbits, tomatoes, brassicas, legumes, lettuce and cotton crops as well as a range of broadleaved weeds.

The adults are about 1-2mm long, their wings are distinctively white and they tend to fly off foliage when disturbed. The larvae are difficult to see but look like oval translucent-yellow scales on the leaf. Early morning is the best time to look for the pest by gently turning over young leaves within the crop, and if found, strict sanitation is crucial.

While feeding, SLW can cause damage to vegetable crops in many ways. When the pest population is high, direct feeding from adults and nymphs can cause poor growth, stunting, reduced yields and some plant deaths. SLW also excrete honeydew which encourages the growth of sooty moulds. This reduces appearance and marketability of the fruit and can also affect plant growth by reducing plant photosynthesis. While feeding, SLW inject saliva into the plant with biotype B causing physiological changes in crop tissue. In tomatoes it causes uneven ripening of fruit. SLW adults can also be a vector for spreading viruses from infected plants to healthy plants. Virus transmission is an issue for tomato growers with two Gemini viruses found in Australia, these are ATLCV (Australian tomato leaf curl virus) and the recently introduced TYLCV (tomato yellow leaf curl virus).

TYLCV is of the greatest concern. SLW need to feed on an infected plants for at least 15 minutes to acquire TYLCV and then feed on another host plant for 15 to 30 minutes to transmit the virus.

The relative survival of SLW on the available broadleaf weeds and local host crops, and the temperature profile will drive SLW abundance. Sowthistle, turnip weed, mallow, wireweed and lucerne are know to be weed hosts.

SLW nymphs are adapted to withstand frosts and adults shelter in the warmest part of the plant canopy. Frosts are most likely to reduce SLW numbers by killing the host plant. In cool conditions, however, SLW populations do not generally increase.

This season whitefly were found in a processing tomato crop in Northern Victoria. A sample of these were collected by the Vic DPI and found to be Greenhouse whitefly *Trialeurodes vaporariorum*. These are known to occur in

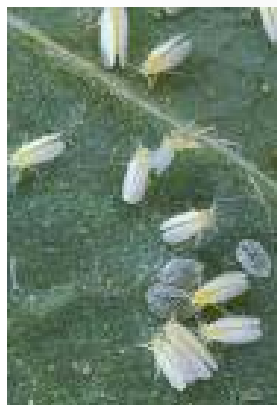
high numbers on vegetables and usually can be controlled with insecticides if necessary, although insecticide resistance can be induced.



Sooty Mould on Tomatoes



Uneven fruit ripening



Whitefly



Ag Chem Permits

PER11483 – phosphorous acid / tomatoes (field grown, processing only) / Phytophthora root rot

Valid 13/1/10 to 30/6/13.

Valid for NSW only.

APVMA require additional residue data to support a permit renewal.

PER12019 - For control of mice in tomato and immediately adjacent grain, legume, canola, safflower and nut crops

Valid 18/2/10 to 31/5/10

Valid for VIC only.



UPCOMING EVENTS

Sustainable Farm Families Year 3 Program

Thursday 29th April, 2010

VFF Industry Business Session

Tuesday 4th May 2010

12.00—5.00pm

Shepparton Park Lake

481 Wyndham Street, Shepparton

Light lunch provided.

For more information or to register to attend one of the forums please contact Georgina Livery on 03 9207 5572 or glivery@vff.org.au

Annual Processing Tomato Forum

12th May, 2010

Port of Echuca, Quality Inn Hotel

For more info contact Liz Mann

Workshops with Dean Lanyon and Doris Blaesing

Does long-term sub-surface drip irrigation affect soil structure and plant nutrition?

May/June 2010

Additional information will be provided closer to the time.

Australian Irrigation Exhibition 2010

Tues 8 – Thur 10th June, 2010

<http://www.irrigationaustralia.com.au/>

World Tomato Congress 2010

Estoril, Portugal from June 20th to the 23rd 2010 www.wptc2010.com

A funding application has recently been submitted to HAL to assist with the cost of attending this event and pre-congress study tour

At this stage it is proposed that a Pre-congress tour will occur studying processing tomato crop production systems in Spain, departing Australia approx 12th June

If you are interested in attending please contact Liz Mann

14th Symposium on Precision Agriculture in Australasia

2nd-3rd September, 2010

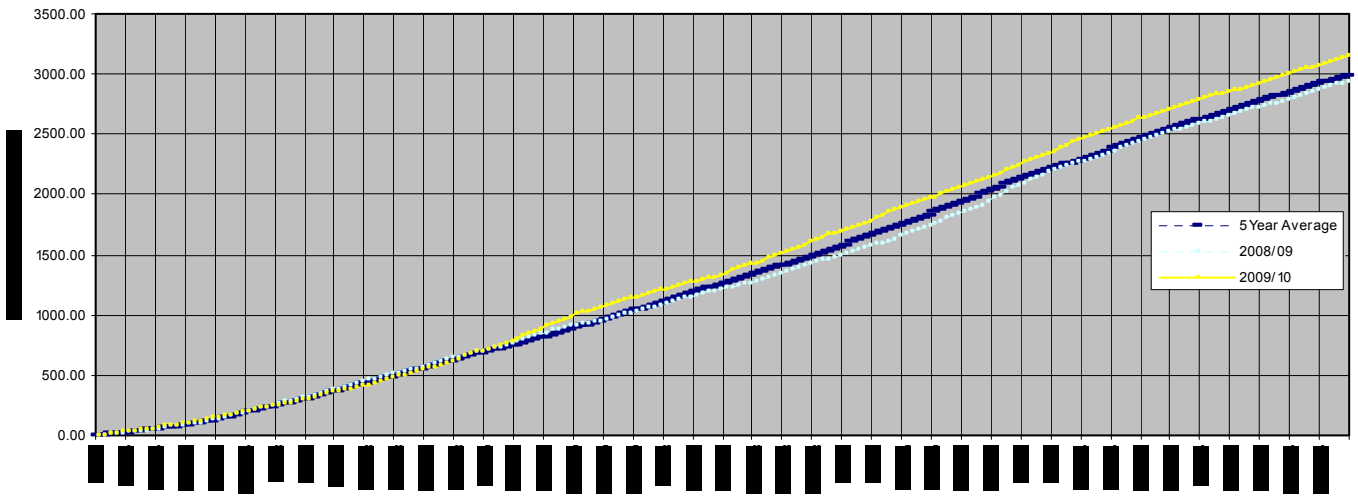
Commercial Club, Albury, NSW

Registration details and more information about the Symposium and Workshop programs will be available on the ACPA website.

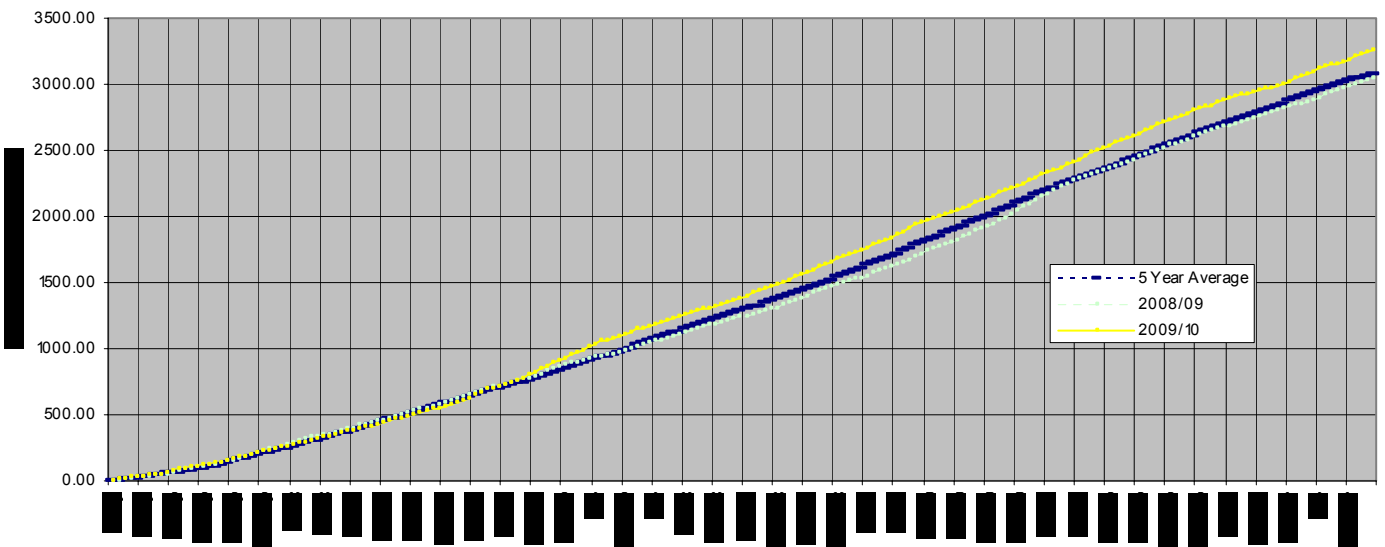
<http://sydney.edu.au/agriculture/acpa/>

Heat Units

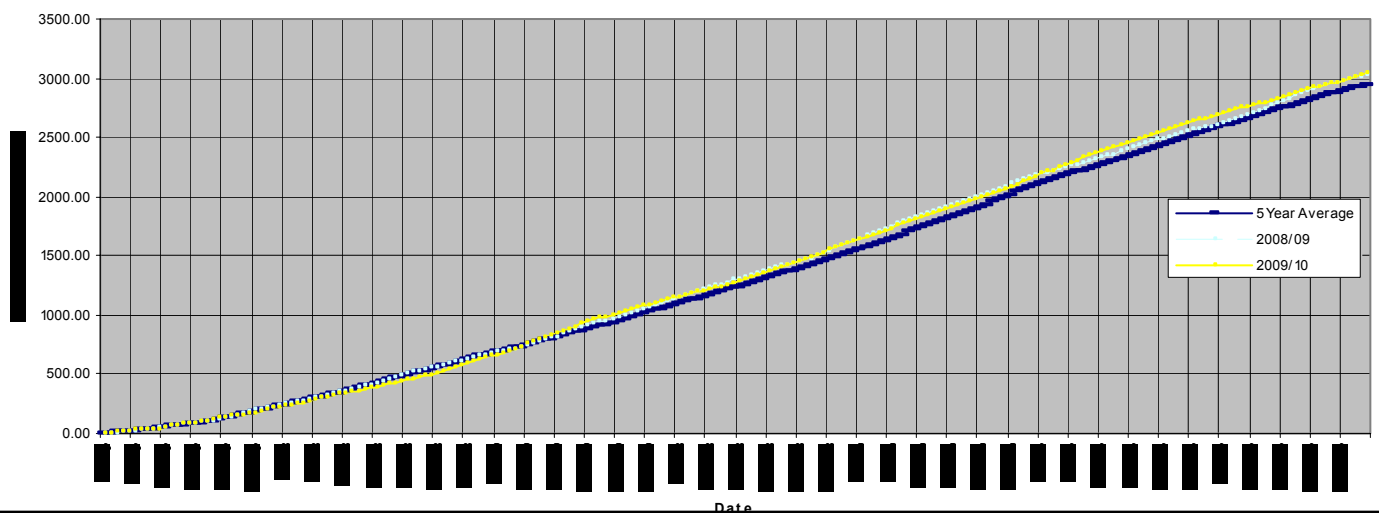
Accumulative Heat Units - Echuca



Accumulative Heat Units - Kerang



Accumulative Heat Units - Shepparton



Health and Wellbeing in Horticulture (from HAL)

Consumers are more interested than ever in their health and wellbeing. Health is going to play a greater role in consumers' decisions about their purchase and consumption of foods. Fruit, vegetables and nuts have distinct health benefits which can be leveraged in marketing activities. Through the across industry funded HAL project, *Health and wellbeing in horticulture*, the tomato industry will have access to a wealth of information about the health benefits of tomatoes to use in marketing and communication activities.

The CSIRO has been engaged through the project to undertake a world-wide literature review focused on health and wellbeing. This will encompass journal articles on all horticultural products, edible and non-edible.

The project will also provide a watchdog service to industry with regard to policy and legislation announcements. It will be jointly led by accredited practicing dietitian, Karen Kingham, and communications consultant Chris Rowley.

"The project will gather together articles published on fruit, vegetables, nuts and ornamental horticulture to demonstrate just how good for your health and wellbeing horticultural products are," Chris Rowley says.

"It will also stay abreast of policy and regulatory issues and inform the relevant industry as things come up. The idea here is to provide industry with the information it needs to make decisions and act in the area of policy and regulation."

Research

Information gathered by the CSIRO will be assessed by the wellbeing team and circulated to HAL member industries via a newsletter and for more urgent items specific to the tomato industry, via an email alert.

Materials will also be made available via a monthly bulletin that will seek to tie together the whole of industry approach and build a wider understanding of research that may extend across a number of industries.

A searchable database will be established to further extend the use of the information and provide the longer term capability for industry to request specific search information relevant to marketing or other activities.

A separate part of the research approach will be the establishment of a process that collects information on trends relevant to HAL members. This could include food and eating trends or lifestyle trends that impact on non-edible horticultural products.

"What we now have is a starting point of close to 400 items in the searchable database, stretching back over the past few months of 2009, and even a few older items of interest," Mr Rowley said.

"Given the timeframe for this initial batch of references there will most likely be articles that the tomato industry may already be aware of, however as we roll out this process we expect an increasing number of new items of interest to appear on a month to month basis."

Generic fruit and vegetable research features most prominently as the scientific community attempts to tease out relationships between diets rich in fruit and veg and diseases such as cancer, diabetes, heart disease and weight control.

Nuts as a group also featured prominently in the first review round. Reviewing epidemiological evidence for nuts and health, the CSIRO researchers commented on the consistency of associations between nuts and reduced risk of heart disease, the benefits of long-term nut consumption and frequency of intake and protection from gallbladder disease.

In the realm of non-edible horticulture, research shows differences in sick leave and productivity among office workers who were in close proximity to indoor plants and less need for pain medication, lower blood pressure and a more positive outlook among hospital patients who had flowering or foliage plants in their rooms.

All of the research gathered by the CSIRO will be maintained in a central searchable database which can be accessed by contacting the project team.

Policy and Regulatory Affairs

The other key area of activity within the wellbeing project is that of policy and regulatory affairs. The project will develop a list of all current and ongoing reviews of interest to horticultural industries to ensure regular monitoring of regulatory bodies. As policy or regulatory issues arise, the relevant industry or industries will be contacted by the wellbeing team and provided with the information needed to make decisions and act.

As an example of the way this service will work, in late January the wellbeing team became aware of a proposal from Food Standards Australia New Zealand (FSANZ) to consider varying the Australia New Zealand Food Standards Code to include traceability and processing requirements for semi-dried tomatoes, tomatoes and other food likely to be used in semi-dried tomatoes. To facilitate its consideration of the proposal the tomato industry was alerted to the fact that FSANZ was seeking public comment.

This across industry project is funded by HAL using levies and voluntary contributions from industry with matched funds from the Federal Government.

Horticulture New Strategic Investment Plan

Horticulture Australia Limited (HAL) is in the process of developing a new strategic investment plan. HAL invests approximately \$85 annually in R&D and marketing programs to benefit horticulture industries and the wider community. When funds are expended on R&D they are matched with Federal Government funds.

The plan will shape HAL's key activities in investing industry and matched Government funds over the next five years. The development of a strategic plan is a requirement of HAL's funding agreement with the Federal Government.

HAL has held discussions with the peak industry bodies that are members of HAL and the Department of Agriculture, Fisheries and Forestry on the content of the plan as it has progressed through the initial drafting stages.

Levy payers and other members of industry are being invited to comment on the outline of the plan before 21 April 2010.

All feedback will reviewed by HAL and will be incorporated into the revised plan where appropriate. The revised draft will be sent to the Minister for Agriculture's office for review before being finally considered by the HAL Board. The plan is scheduled to be finalised by July 2010.

It can be viewed at www.horticulture.com.au/strategicplan
Comments can be sent to strategicplan@horticulture.com.au

Burning-Off

A local vineyard has recently contacted me expressing their concern in regards to burning tomato stubble. Can people please be considerate of vineyards in the region which are susceptible to tainting of grapes by smoke. Thanks



New book "RIPE: The Search for the Perfect Tomato". By Art Allen

Lots of people we all know from the processed tomato world are mentioned in the acknowledgements as well as quoted in the book

It is an easy read and does provide good background for anyone new to the industry. For those of us not so new to the industry....some interesting characters we all know are quoted....and the processing tomato story is well told.

The book can be purchased from Amazon in North America or in Europe, and from other online booksellers. Some copies will also be available at the congress in Estoril.

(Amazon.com: http://www.amazon.com/Ripe-Search-Perfect-Arthur-Allen/dp/1582434263/ref=sr_1_1?ie=UTF8&s=books&qid=1262804102&sr=1-1)

ACKNOWLEDGMENTS:

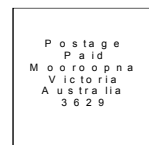
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