TOMATO TOPICS

NEWS and INFORMATION
FOR THE PROCESSING TOMATO INDUSTRY

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Western Flower Thrips

During the current season a number of thrip samples were collected from across the processing tomato region for identification. In many cases the predominate thrips were plague and tomato. Western Flower Thrips were once again detected in a processing tomato paddock but at a different location than previously. This paddock also appeared to have a high incidence of TSWV. (The grower involved was notified immediately when WFT were identified.)

It is important to ensure WFT do not spread across the processing tomato region. With contract harvesting people and machinery are moving between regions. This may assist in the spread of WFT. Thrips are attracted to white, blue and yellow; ideally these colours should be avoided as clothing items when moving from WFT infected areas. It is also advisable to follow the protocol for "Hygiene measures for people moving between properties growing processing tomato crops". (Contact Liz Mann if you do not have a copy).

WFT may also be transferred between regions through the movement of soil on machinery. WFT pupae can be contained in the soil remaining on machinery and may easily be transmitted to another region within the processing tomato region.

It is important that all people entering processing tomato crops on different farms and in different regions take precautions to restrict the spread of unwanted pests and diseases across the industry.

A project was conducted on the Northern Adelaide Plans to improve the management of WFT and TSWV. This project investigated the potential for native plants and grasses to either host TSWV or harbour pests. Survey results indicated that WFT was rare on native grasses and plants, compared to weeds. The native species also recorded fewer tomato and onion thrips

This work has indicated that replacing weeds with native plants and grasses should greatly reduce both thrip numbers and the level of TSWV. However, it is unknown at this time if these natives carried new pest problems or more effective natural enemies.

A guidebook, *Revegetation by Design—A guide to using slected native plants to reduce pests and diseases in the horticulture region of the Northern Adelaide Plans*. Has been developed for growers and will soon be available as a free download from the internet: www.sardi.sa.gov.au (follow the links to entomology - horticultural pests - revegetation by design).

Inside This Issue

Plant Nutrient Uptake

Doris Blaesing (Serve Ag)

Not all nutrients extracted during a soil analysis can be freely taken up by plants. A number of factors influence how much of each nutrient is accessible to the crop:

Nutrient availability – each nutrient is held in a different form in the soil, with some forms easily available for plant uptake from the soil solution and other forms being difficult to access. Most soil tests do not differentiate between the different types, so not all the nutrients measured in a soil test will be in an easily available form for plants. Some nutrient are held more firmly than others, e.g extremes are nitrogen, which as nitrate is very easily available, and phosphorus where large amounts are often fixed to soil components and very hard to access by roots, or may not be accessible at all.

Soil type – soil texture will affect how much nutrients a soil will hold and also how available these nutrients are to plants. Clay has a high nutrient-holding capacity, while sand has a low capacity. Clay is particularly important for holding on to potassium, but sometimes will hold onto nutrients too tightly, making it difficult for plants to take them up.

Organic carbon – organic carbon is very good at holding on to nutrients that can still be taken up by plants. High organic carbon levels are important for good nutrient availability in soils of all textures.

Soil bulk density – very high bulk densities (caused by soil compaction) restrict root growth and therefore reduce the amount of nutrients available to the plant.

Nutrient ratios – very high levels of one nutrient may cause plants to take up less of another nutrient. High sodium, calcium or magnesium levels reduce potassium uptake. Sodium can also interfere with phosphorus uptake, while calcium and magnesium will also compete with each other and with potassium.

Plant root distribution –the rooting depth of a plant will determine how much of the nutrient pool it can access. The percentage of a paddock's area accessed by roots also needs to be considered, remembering that compacted inter-row spaces will reduce the amount of root coverage.

Uptake efficiency – plants are never efficient enough to take up all available nutrients, with 50% efficiency being considered a relatively high efficiency. That is a reason why there always has to be a certain minimum level of nutrients in the soil.

Plant stress – stresses such as disease, waterlogging, drought, cold/inclement weather, soil compaction, inadequate, imbalanced nutrition will all reduce a plant's nutrient uptake efficiency.

Overseas Research

Use of ABA (Abscisic Acid) for Processing Tomato Transplant Height Control - Ohio State University, USA (2006)

Abscisic acid was trialled as a drench application of 200 and 400 ppm solutions (1 litre/plug tray) to control the height of processing tomato transplants. Treatments were evaluated for their effect on transplant height control, field establishment, crop growth and final marketable yield.

The results showed that ABA reduced the plant height 5 days after application but there were no differences after 3 weeks in the field. ABA could be effective in controlling plant height when planting is delayed due to inclement weather. Individual cultivars did respond differently to ABA applications, so it was suggested that further research be conducted to enable the use of ABA in controlling transplant height.

Evaluation of Extended Field Storage Varieties Over Time of Harvest - California, USA (2005)

Three sequential late-season field plantings of 10 processing tomato varieties were mechanically harvested to measure the effects of delayed harvest on yield and fruit quality. The first two plantings set fruit under "normal" temperatures, while the third planting experienced "hotter than normal" temperatures during flowing and fruit set.

Average yields decreased with each successive harvest of the first two plantings, but not all varieties had a similar response. The third planting experienced a yield gain when harvested a week later due to the delay in fruit ripening.

Tonnage and rotten fruit changed significantly over time, whereas the average soluble solids though they decreased slightly were fairly stable. The change in soluble solids over time did vary between varieties, some increased while others decreased or remained the same. In general the PTAB pH tended to increase by 0.10 with each successive harvest. Lab pH showed similar trends, however the pH values were higher and reach undesirable levels (>4.6) with extended field storage.

Note

A few years ago in Australia a number of growers experienced fruit which contained shot seed. A few samples of the fruit from these crops were tested for pH and soluble solids. The shot fruit were the oldest and had the lowest solids and highest pH (ie low acidity). The upper fruit also had higher solids and acidity (lower pH) than the lower fruit from the same block - which you would also expect assuming the lower fruit are older.

Note that while the results were interesting and back up what we thought anyway, they wouldn't stand up to statistical scrutiny. I was quite happy with the variance in most of the fruit groups, although there were still a couple of strange numbers.

Sustainable Tomato Production Through Minimum Tillage and Crop Residue Retention

The aim of this project was to developing a farming system that minimised the need to burn stubbles and enabled stubble to be incorporated into the soil in a sub surface drip irrigation system. Currently a number of tillage operations are undertaken to fully incorporate crop residue. These practices result in excessive soil compaction from traffic and excessive greenhouse gas emissions from the burning of the extra diesel required to power the tractor. Incorporating crop residue will also enable carbon and nutrient cycling, thus improved overall soil structure and leading to a long-term improvement in soil quality and resilience. Burning of stubbles results in:

- Nutrient loss, particularly nitrogen, carbon and sulphur. Unburnt soils have been found to contain nearly double the amounts of carbon and nitrogen and much more P than burnt soils.
- Increase in erosion (wind and water)
- Air pollution and resulting health problems. EPA data is showing small particles from fires are causing more asthma and bronchitis
- Removal by burning also has a large impact on the soil's biological properties. A survey of rice-growing properties from four areas around the MIA was recently carried out by CSIRO Land and Water. Paired farms were selected within each area that were on the same soil types. One farm was a long term stubble burner and one was a long-term stubble retainer. There were far fewer microbes when stubble was removed by burning, and decomposition of organic matter occurred at a slower rate.
- Damage to remnant vegetation, particularly isolated old growth trees
- Declining soil structure (soil aggregate stability)

The incorporation of crop residue into the soil profile should also assist in increasing the soil organic carbon level of the soil, and assist in preventing nitrates leaching through the soil profile.

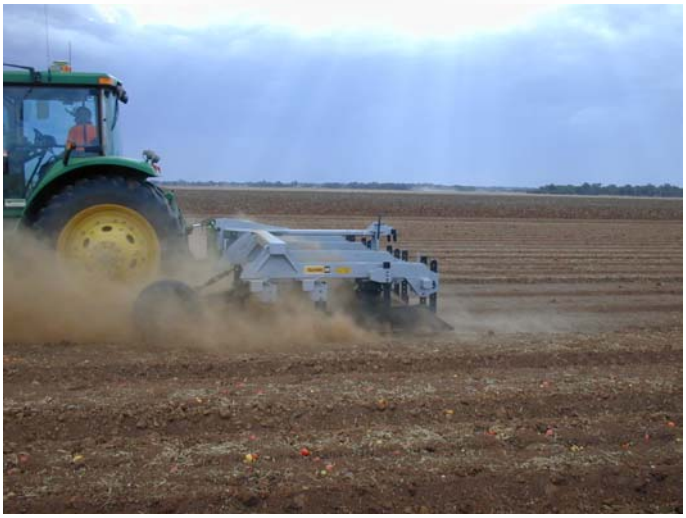
During the Nuffield Scholarship Dennis Moon from North Central Produce visited a processing tomato grower in Williams, California. This grower had developed a machine called a Wilcox Eliminator, specially built for intensive row crop farming systems and incorporating processing tomato crop residue. The concept of the machine was to break down the trash or stubble from tomatoes, corn or wheat with one pass, leaving a seed bed ready for planting. The machine consists of coulters and ripper tynes at the front followed by a bed former. The Wilcox machine is very similar to machines commonly used in Europe where stubble retention is critical to their successful cropping.

Upon receiving a grant through the National Landcare Program Dennis was provided with an opportunity to trial this equipment in Australia. The first stage of the project was to contact the Wilcox manufacturer in California to discuss design requirements to suit Australian conditions and farming systems (drip irrigation, 1.5m beds). Following a considerable shipping delay the equipment finally arrived in Australia in March 2007 and will be leased for the duration of the project.

Australian Government
Department of Agriculture, Fisheries and Forestry
National Landcare Programme

This Wilcox equipment will primarily be used to prepare ground for processing tomatoes, with out the usual practice of burning cereal crop stubble. Paddocks that are currently planted to tomatoes will also be renovated after harvest with this machine. This will firstly involve using chopper behind the processing tomato harvester to partly chop the tomato trash. The Wilcox equipment will then be used to incorporate the plant residue back in to the soil ready for planting with a consecutive tomato crop.

Stubble retention should assist in reducing the amount of nutrients, especially nitrogen that may be leached into ground water. Soil degradation should also be reduced and soil organic carbon levels should gradually increase. Stubble retention should help to improve soil biology; which will be measured with assistance from Serve Ag interpret soil nutrition and biology results. Overall this project should result in a reduction in the burning of processing tomato and cereal stubbles.



Wilcox Eliminator working at Rochester

The Wilcox Eliminator was demonstrated in a field day at Rochester on the 15th March. Initial results are very encouraging and appear suitable to our soil types and farming system. If you are interested in inspecting the machine please contact Liz Mann (lizmann@aptrc.asn.au / 0427 857 578)

WORLD PROCESSING TOMATO COUNCIL

Date of last update: 29/01/2007

all figures in 1000 metric tonnes

			2005 FINAL	2006 FINAL	2007 FORECAST	AVERAGE 2004 to 2006
NORTHERN HEMISPHERE*	MEMBERS IN MEDITERRANEAN REGION (AMITOM)	Algeria**	150	180	180	202
		France	157	120	150	166
		Greece	880	710	750	926
		Iran**	2 124	1 800	1 900	1 950
		Israel	229	186	200	233
		Italy	5 300	4 400	4 600	5 333
		Jordan	40	-	-	27
		Malta**	8	11	10	10
		Morocco	150	120	120	143
		Portugal	1 000	900	950	1 027
		Spain	2 850	1 580	1 600	2 210
		Syria**	110	165	165	135
		Tunisia	735	463	500	647
		Turkey	1 626	1 450	1 800	1 592
		Ukraine**	150	250	250	
		Subtotal Mediterranean Region	**15 509**	**12 335**	**13 175**	**14 602**
	MEMBERS IN NORTH AMERICA	California	8 706	9 072	10 886	9 456
		Canada	590	571	565	584
		Subtotal North America	**9 296**	**9 643**	**11 451**	**10 040**
	MEMBERS IN ASIA	China	3 200	4 300	4 500	4 000
		Japan	44	40	45	43
		Subtotal Asia	**3 244**	**4 340**	**4 545**	**4 043**
		Subtotal WPTC members	**28 049**	**26 318**	**29 171**	**28 684**
	NON MEMBERS	Bulgaria	250	140	140	180
		Hungary	71	100	100	102
		Poland	213	175	175	184
		Czech Republic	12			
		Slovakia	24			
		Other US States (exc. California)	550	461	461	504
		Subtotal non-members	**1 120**	**876**	**876**	**970**
		Total Northen Hemisphere	**29 169**	**27 194**	**30 047**	**29 655**

			2005 FINAL	2006 FINAL	2007 FORECAST	AVERAGE 2004 to 2006
SOUTHERN HEMISPHERE*	MEMBERS	Argentina	360	290	340	360
		Australia	317	291	270	309
		Chile	756	619	702	711
		South Africa	160	149	160	157
		Subtotal WPTC members	**1 593**	**1 349**	**1 472**	**1 537**
	NON MEMBERS	Brazil	1 245	1 160	1 160	1 215
		India	145	145	145	145
		Mexico	21	24	24	25
		New Zealand	64	65	70	66
		Peru	40	45	45	44
		Senegal	80	76	76	70
		Taiwan	20	20	20	21
		Thailand	260	260	260	261
		Venezuela	40	40	40	38
		Subtotal non-members	**1 915**	**1 835**	**1 840**	**1 885**
		Total Southen Hemisphere	**3 508**	**3 184**	**3 312**	**3 422**
GENERAL TOTAL			**32 677**	**30 377**	**33 359**	**33 077**
of which members of the WPTC			29 642 90,7%	27 666 91,1%	30 643 91,9%	30 221 91,4%

all figures in 1000 metric tonnes

In pink: estimate, not recent information on the country

DISCLAIMER

All figures are provided to WPTC members and other participating experts of the processing associations. WPTC does not guarantee or assume any liability for the accuracy of the contents of this site/report and shall not be responsible for any losses sustained as a result of relying on the contained information.

*Hemispheres are not defined in the strict geographic sense but as:
Northern Hemisphere: crop period mainly July to December
Southern Hemisphere: crop period mainly January to June

** AMITOM associate members

UPCOMING EVENTS

18th Annual Women on Farms Gathering
"Rural Women on the Mooove - Come Join Us for a Fruitful Experience"
18 - 20th May, 2007, Shepparton
mrsilver@mcmedia.com.au

Australian Vegetable Industry Conference 2007 - Vegetables Claim Centre Plate
29th May - 1st June 2007
Sydney Convention and Exhibition Centre, Darling Harbour, Sydney
www.vegieconf.com.au

Annual Processing Tomato R & D Forum, Followed by an Industry Dinner
Friday 22nd June 2007
Port of Echuca - Quality Inn

8th World Congress and 11th ISHS Symposium on the Processing Tomato
8th - 13th June 2008, Toronto, Canada
www.worldtomatocongress.com
Financial assistance is available for current processing tomato industry levy payers to attend this congress. Please contact Liz Mann for further information.

Pesticide and Heavy Metals Monitoring in G-MW Irrigation Areas

Goulburn-Murray Water (G-MW) is the largest rural water supply authority in Australia, supplying water for irrigation, domestic and stock drinking and town supplies.. The bulk of G-MW water is supplied through gravity irrigation channels (7,150 km) to a wide variety of farms including tomatoes and aquaculture. These agricultural enterprises use a range of pesticides to control pests and weeds. It is suspected that water contaminated with pesticides can be unfit for human consumption, stock drinking, fish farming, irrigation and food processing. It is therefore essential to ascertain the concentrations of chemical contaminants (pesticides and related heavy metals) in G-MW's supply channels to establish risk concentrations and ensure that appropriate measures can be taken to reduce risks from such chemicals.

During 2004/05 and 2005/06 irrigation seasons, a pesticide monitoring study was conducted at 15 potential risk sites located within the six Goulburn-Murray Water irrigation areas (Central Goulburn, Shepparton, Rochester-Campaspe, Murray Valley, Pyramid-Boort, Torrumbarry) using a new, economical, innovative passive sampling technique. The monitoring found three agriculture chemicals on a regular basis across the six irrigation areas. These were : endosulfan (insecticide), atrazine (herbicide) and copper (fungicide) (each found in the Rochester-Campaspe and Pyramid-Boort Channel). The two other chemicals found outside the processing tomato region on an irregular basis were chlorpyrifos and parathion methyl (both organophosphates). By comparison with national water quality guidelines (ANZECC-2000 and other international guideline values and ecotoxicological data (mammalian, fish, algae and daphnia, Tomlin (2000)), the water quality was found to be within the national standards for most primary production purposes (irrigation, raw water for drinking, town water supplies, stock & domestic supply, recreation, and aquatic ecosystems protection) for all the six irrigation areas investigated, including Pyramid Boort and Rochester-Campaspe.

Full reports (year 1 pesticide monitoring and final report-combined year 1 & 2 monitoring) including results from tomato growing sites of Corop (Rochester) and Boort can be accessed through the following web links as follows :

G-MW web site ; http://www.g-mwater.com.au. -Research and Development- Current Projects- Pesticide in Channels

DPI Victorian Resources On line-Land and Water Management-Pesticide in Irrigation Water
http://www.dpi.vic.gov.au/dpi/vro/vrosite.nsf/pages/lwm_farmwater_pesticides

Further information can also be obtained from **Golam Kibria** by emailing : golamk@g-mwater.com.au

Across Industry Program - Horticulture Australia Ltd.

AH04007 - Pesticide Regulation Coordinator
This project includes:

- Liaison with pesticide regulators on pesticide reviews and acute dietary intake assessments.
- Coordination of industry responses to pesticide reviews and risk assessments, including gathering of data.
- Raised industry understanding of pesticide regulatory requirements.

AH04009 - Minor Use Coordinator
A new system to facilitate access to minor use permits by horticulture industries, including coordination of permit requests

- a mechanism to strategically assess currently available pesticides and seek 'softer' alternatives
- consolidation of permit applications across industries
- tendering and management of projects for data generation to support permit Requests

What's happened?
Using a strategic approach to permit acquisition across all horticultural industries, multiple permits for the same pesticide are being consolidated into one permit
containing multiple crops. Part of the approach to this project includes a 'strategic pesticide gap analysis' which has been undertaken to evaluate current pesticides for selection criteria such as integrated pest management fit, resistance management, residues and trade. Gaps in available pesticides are determined and new control options selected using the same selection criteria.

AH06008 – Human Nutrition Needs for Horticultural Industries
This project is for a scoping study to provide possible future approaches for horticulture regarding activity in the area of human nutrition and health promotion.

A wellbeing strategy will be developed for funding consideration in the 2007-08 financial year. In the meantime a 2006/07 allocation of $60,000 be committed to the implementation of a part-time resource to undertake activities in the area of policy and regulatory affairs in particular to respond to the next round of consultation on the FSANZ Health Claims regulations.

AH06009 – Horticulture Water Initiative Phase 3
The Horticulture Water Initiative (HWI) has been established since 2002 and to "Ensure access to water for responsible and profitable horticulture".

What's happened?
The HWI has been focusing on the communication of key information documents and achievements. Activities include:

- Development of a new look, and redesigned website (http://www.horticulture.com.au/delivering_knowhow/Environment/overview.asp#) designed to provide an identity for the HWI and ensure that there is an awareness of the major activities being undertaken by the across industry program.
- A recently released brochure, summarising the significance of water in the horticulture industry and highlighting the objectives and achievements of the HWI.
- Promotion of HWI through an information stand at the 5th International Symposium on Irrigation of Horticultural Crops held in August in Mildura. The HWI has completed a number of critical resource documents available for industry (HAL) and Horticulture Australia Council (HAC) use. These documents include:
- Policy position paper - this paper is available to industry for assisting with submissions to Government in what is a rapidly changing environment. HAC has used this position paper to develop their draft Horticulture Water Policy.
- Irrigation research and development priorities - this paper identifies major issues in water management likely to be relevant to the whole of the horticulture industry over the next three to five years. This paper is available to industry bodies to assist them in identifying priority issues and to guide input into the National Program for Sustainable Irrigation (NPSI).
- Case studies (case studies are available on the website). Eight case studies (including processing tomato) have been developed showcasing the innovation and application of good water management practices in horticulture. All documents mentioned above are available on the website.

AH06010 – Promote the Health Advantages of Fruit & Vegetables to Increase their Consumption
This project is to undertake an advocacy program, directly and via the Australian Fruit & Vegetable Coalition (of which HAL is the Secretariat), to initiate a national campaign for the promotion of the health advantages of fruit and vegetables to increase their consumption by Australians. For the industry, a cooperative approach to the promotion of healthy eating offers one of the best opportunities for a concerted effort to raise demand and consumption of fruit and vegetables. In 2005/06 the Health Initiative has worked to build on the awareness created through the Australian Government campaign. Strong links have been established with State and Territory governments and work has been undertaken to encourage increased cooperation and participation by non-government partners. At a Commonwealth level a second burst of campaign activity was undertaken in May 2006 with point of purchase advertising and with the printing of 35,000 copies of the Healthy Food Fast cookbook for free distribution by licensees. HAL member bodies have shown their support for this process in 2005/06, with a number working with the campaign to deliver an integrated Go for 2&5™ health message. In 2006/07 a primary focus of the across industry funded Health Initiative will be to widen the reach of the campaign licensing and to encourage all HAL member bodies to become involved and provide support through ongoing promotional activities. Licensed organisations will be encouraged to work closely with government and with other licen-

(Continued on page 7)

(Continued from page 6)
sees to further leverage the investment.

AH06011 - Strategic Review of Industry Development in Horticulture
This project is to fund the implementation of the recommendation flowing from a strategic review of horticulture industry development.

The overwhelming finding of the review was that the different drivers of various industries need to be adequately captured in order to determine the best deployment of industry development resources for that particular industry. The review was clear that taking on a "one size fits all" approach to investment in industry development would be unlikely to result in the best results for horticulture. In many cases the existing role of industry development resources are continuing to service some industries' needs very well. However, in other industries, needs are changing and the traditional "generalist" approach of industry development investment may not be the most appropriate use of industry funding.

AH06012 – Improved Evaluation Strategies for Varieties Derived from Australian Breeding Projects or Imported Varieties
Investigate varietal evaluation and crop adaptation procedures in Australian crop improvement to ensure best practice procedures.

AH06013 – Horticulture for the Consumer
Development of a business plan for a consumer responsive program in horticultural biotechnology projects. This may include developing a draft business plan for application for CRC (Cooperative Research Centre) funding.

AH06019 – Australian Horticulture's Response to Climate Change and Climate Variability
HAL in partnership with the Land & Water Australia Managing Climate Variability Program (MCVP) is seeking to detail the key implications to Australia's horticultural industries of a changing climate.

Chemical Issues

Phosphorous Acid

Some residue data information recently received from the DPI was reviewed. This data was obtained as part of the Phytophthora work conducted between 1991/1993. This data was not published as part of the project results and was not obtained by the DPI until July 1995, after the completion of the project.

From this data it was found that when Foli-R-Fos® 200 was applied to a processing tomato crop, over 3 applications spaced between 2.5 and 3.5 months before harvest (total phosphorous acid applied 3.5 L a.i/ha, this equates to 17.5 litres/ha of Foli-R-Fos® 200 or 5.8 litres/ha of the Foli-R-Fos® 600 formulation) a residue was detected in the fruit at harvest. This residue was at a low level.

As this product is not registered for tomatoes in Australia no minimum residue level is established by either the APVMA or Food Standards Australia. This means that phosphorous acid MUST NOT be detected in the fruit at harvest even at a low level.

If phosphorous acid is used in processing tomatoes, even at a total rate less than 5.8 litres/ha of Foli-R-Fos® 600 there is a chance a residue may be detected in the fruit at harvest. At this stage it is unknown how quickly the product breaks down in the crop. Under the Victorian chemical use legislation growers may use products off label but take the risk of crop phytotoxicity or residues being detected at harvest.

Alternative Stockfeed and Chemicals: Consider the Risks.

Faced with the current shortage and rising price of conventional stockfeed, some livestock producers are considering using horticultural by-products such as tomatoes as alternative sources of stockfeed. The Department of Primary Industries recommends that alternative stockfeed producers review the produce's chemical treatment history to ensure it can be used as stockfeed and is free from unacceptable chemical residues. Some chemicals used on tomatoes, including some endosulfan, methomyl and imidacloprid products, contain prohibitive statements on the label that make it illegal to use tomatoes as stockfeed'.

'An example of this is the statement 'DO NOT feed treated tomato crops to livestock' which is contained on the label of some endosulfan products. This statement recognises that produce treated with endosulfan has a high risk of generating unacceptable chemical residues in livestock products, which could severely jeopardise our valuable livestock trade markets.'

It is important that alternative stockfeed producers ensure they fully read the labels of the chemicals they use to make certain that they comply with any withholding periods or other statements that may have an impact upon whether the produce can be used as stockfeed.

Tomato growers providing their produce as stockfeed are advised to complete a vendor declaration when selling stockfeed to livestock producers. Vendor declarations outline the chemical treatment history of stockfeed and certify that it is suitable for use. Vendor declarations are available from the Meat and Livestock Australia website, www.mla.com.au.

For further information regarding the risks associated with alternative stockfeed, contact the DPI Customer Service Centre on 136186.

Australian Processing Tomato Grower Magazines 1980 to 2006

Australian Processing Tomato Grower Magazines have recently been compiled onto a CD. This CD is broken down into subjects enabling all reports from the past 16 years on a chosen topic to be easily located. This CD has recently been provided to all current processing tomato levy payers but is available for purchase for $100 plus GST to other interested people.

If you would like to purchase a copy of this CD please contact Liz Mann via email (lizmann@aptrc.asn.au) to arrange an invoice and CD.

Healthy Soils for Sustainable Vegetable Farms: Ute Guide

During the coming weeks processing tomato growers will be receiving in the post the "Healthy Soils for Sustainable Vegetable Farms: Ute Guide". The development of this guide has been jointly funded by Land & Water Australia Healthy Soils for Sustainable Farms Programme and the National Vegetable Levy as part of the EnviroVeg program.

This ute guide includes details on improving your soil quality, damage prevention strategies and monitoring change.

If you would like to obtain a copy please contact Helena Whitman, Environmental Manager at AusVeg Ltd (helena.whitman@ausveg.com.au)

Tomatoes, Lycopene & Human Health Preventing Chronic Diseases

A book which is the foundation to a multi-region consumer health education plan for the tomato growing and processing industry was recently published by the Caledonian Science Press titled "Tomatoes, Lycopene and Human Health".

This is the first publication of an unbranded, fully independent scientific reference book on tomato health benefits . It is written and edited by 28 internationally recognized scientists in the area and supported by an enormous and compelling body of evidence.

Copies of the book are available from the APTRC Inc. Please contact Liz Mann via email (lizmann@aptrc.asn.au) for further details.

Tomato Yellow Leaf Curl and Potato Spindle Tuber Viroid

Surveys were conducted across a few processing tomato crops during the season by the Victorian DPI as part of their monitoring program.

To date no TYLC or PSTVd have been recorded in processing tomato crops in Victoria.

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Funding from Horticulture Australia Ltd. (HAL) for the Technology Transfer project (TM05007) is acknowledged. "Tomato Topics" is a quarterly newsletter compiled and edited by Liz Mann, Industry Development Manager, APTRC Inc., P.O. Box 2293, SHEPPARTON, VIC 3632.
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