TOMATO TOPICS

NEWS and INFORMATION
FOR THE PROCESSING TOMATO INDUSTRY

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5th NATIONAL CONFERENCE ON INJURY PREVENTION AND CONTROL, and the 4th NATIONAL FARM INJURY CONFERENCE, 2001 - Linking research, policy and practice for safer injury-free communities

Report by: Katie Kirkham-Rathjen

An Injury Prevention Conference was recently held at Warrnambool, which I attended on behalf of the Processing Tomato Industry. Approximately 250 people from across Victoria and interstate participated in the conference, although it appeared that only a very small number of these people were farmers. One of the most important points I learned from attending the conference was that Work Safe Victoria and Work Cover are here to work with us as farmers, and to provide us with every possible assistance in ensuring our workplace is a safe work environment for us and our employees. They realise farms are a dangerous work place and the financial restraints we are often under. They are certainly not the 'ogres' we perceive them to be. Sure, do the wrong thing and it may be different but farm injuries and deaths are on the rise and the responsibility lies in our hands to address the safety issues. We all fall in to the habit of thinking, "I'll fix that unprotected PTO shaft tomorrow when I am not so busy".

"There is a death every 3-4 days on Australian Farms, and many of these accidents are preventable through implementation of occupational health and safety practices. In addition, 13% of farm deaths occur to children under the age of 15 years." These are rather alarming figures. Occupational Health & Safety (OH&S) is everyone's responsibility.

The duties of farmers as employers include:
"As far as practicable, employees must provide and maintain a safe and healthy workplace for their employees."
'As far as practicable' means that you must consider:

- what is the severity of the hazard or risk;
- what is known about the hazard or risk and how it can be removed or reduced;
- the ways that are available and suitable to remove or reduce the hazard or risk;
- the cost of removing the hazard or risk.

Employees also have a responsibility for their own safety and those working around them. This means that not all the onus is on us as employers and providing that we, so far as practicable, provide our staff with a safe working environment, staff must also take some responsibility upon themselves regarding OH&S.

OH&S is not something that will be put in place overnight and takes time however doing a Risk Assessment of your farm is a good place to begin. There are 3 steps that farmers must follow in assessing their workplace. These include **identifying** the hazards, **assessing** the hazards, and

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controlling the hazards. Employee inductions are also important and is something that we as an industry should look at implementing in manual form. Knowing what to do in case of an emergency is also extremely important and is as simple as providing the staff with and Emergency Procedure Plan explaining in step by step format what to do should you require expert assistance.

As I have already mentioned, OH&S is not something that we can implement overnight and takes time and planning, however it is also not something that we can afford to put on the back burner. Think of the consequences to you if either you or one of your employees is injured, or worse killed, whilst working on your farm.

A training course titled: Managing Farm Safety is currently being held by a number of the TAFE organisations across Victoria. This course is a good introduction to providing knowledge and skills in Occupational Health and Safety and risk management principles in an agricultural situation. The cotton industry recently conducted a Managing Cotton Farm Safety training program and developed a cotton specific hazard checklist, which incorporated hazard identification, risk assessment and risk control. In addition, induction forms were developed for all employees and guidance notes on safety issues. This project is still continuing within the cotton industry and it is hoped that the OH&S 'best practice' may be incorporated into the Best Management Practice manual for the industry.

As recently discussed at the Women's Tomato Group meeting, this is something we should endeavour to do for our industry and through the Farm Safety Action Group aim to have a manual available for use for all farmers within our industry. Liz Mann and myself have begun to collate the information we use on our farm but are hoping that all farmers will become involved. Anyone with information should contact Liz or email me at:

Fernsicht@bigpond.com.au

Development of a Permanent Bed System for Tomato Production

Stuart Little & Gordon Rogers
Applied Horticultural Research, Sydney, NSW

Current levels of soil cultivation in vegetable production can rapidly degrade soil organic matter levels and soil structure. An alternative system to annual cultivation has been developed, using organic mulches grown in place on permanent beds. The system combines elements of controlled traffic, minimum tillage and permanent subsurface irrigation.

The method

- Once beds are formed and sub-surface irrigation is installed, a cover crop of species such as millet, wheat, barley or ryegrass is grown over the beds.
- Once the cover crop has reached maturity or sufficient biomass is obtained, it is killed using a combination of herbicides and a crimping roller that rolls the standing cover crop flat.
- **The dead cover crop is then left on the soil surface,** forming an organic mulch layer that suppresses weeds and retains soil moisture.
- A tomato crop can then transplanted or direct seeded through the organic layer.
- After harvest, the crop residue is slashed and a new cover crop planted directly through the residue. The beds are left permanently in place, and there is no further cultivation.

Large commercial plantings of fresh market tomatoes, as well as smaller trial areas of ground tomatoes, zucchini, pumpkin, eggfruit, capsicums and broccoli have been successfully grown using the permanent bed system in Western Sydney and North Queensland.

The increase in soil organic matter levels leads to:

- greater soil stability;
- elimination of soil surface crusting,
- improved infiltration;
- higher populations of beneficial soil microorganisms.

Other advantages of this system over conventional farming are:

- reduced soil cultivation; and
- elimination of annual laying and retrieval of trickle irrigation tube.

This work was supported by Horticulture Australia Ltd and the Natural Heritage Trust.

Contact: Stuart Little, Applied Horticultural Research
☎ **02 9527 0826 or 0409 832 632**
or visit the website: **www.ahr.com.au**

Future Research into the Best Bet Production Systems for Processing Tomatoes

A new project has been submitted to the APTRC by DNRE researcher, Peter Fisher to address a range of issues as outlined in the Industry's Five Year Research and Development Plan. Activities will cover: Integrated Crop Management, Alternative Crops, and 'Best Bet' Strategies. After consultation with APTRC Council members it was decided that the project should comprise of on farm grower run trials, in which researchers will work closely with growers to develop appropriate objectives and treatments, take appropriate measurements, and analyse the results which would be made available to the whole industry.

The project is looking for up to six growers who are keen to be part of the program and to try different cropping rotations, different products, or alternative approaches to growing processing tomatoes. It is not necessary to have a clear idea of what you might like to try on your farm, as that can be developed in collaboration with the research staff. If you are interested in working with other growers and researchers in improving your growing practices and measuring the impacts of your changes, and you are willing to share the results with others in the industry, please contact Liz Mann by the end of January 2002.

NSW Agriculture's Organic Demonstration Site at Yanco

Robyn Neeson (Organic Farming Liaison Officer, Yanco)

Consumers worldwide are becoming more discerning about the food they are eating. Issues such as nutritional value, production system ethics (for example environmental concerns, animal welfare and transgenic modification) and food safety are increasingly guiding their choice. One agricultural production system that is perceived by consumers to meet the criteria of producing safe and nutritious food in an ethically responsible way is organic farming.

Growth of the organic sector overseas is reputedly between 20 and 25% annually. If the growth rate experienced in Europe in the past 10 years continues, then 30% of food consumed is expected to be organic by 2010. The organic industry world wide is currently valued at US$20 billion. By the year 2006 it is predicted that the world trade in organic products will be US$100 billion.

In Europe, the organic industry is currently valued at approximately $7.5 billion, in the US $1.9 - 2.6 billion and in Japan $1.5-2 billion. The value of organic products consumed in Japan is predicted to reach $10 billion by 2006. In 1996, the market for organic vegetables in Europe was worth US$200 million. It is predicted that this will reach US$510 million per annum by the year 2003.

Estimates vary to the size of the organic industry in Australia. The industry's peak body, The Organic Federation of Australia (OFA), puts the value of production to be $170 - $230 million per year, with produce worth $50 - $70 million being exported. Many consider these to be conservative estimates. Imports are significant, but their value is not documented.

The adoption rate of organic farming systems within Australia could be considered low by comparison to Europe and the United States. Whilst the Organic Federation of Australia has reported that growth in the Australian *retail* sector has been estimated at 20-30% annually, farm conversion has failed to keep pace with consumer demand for organic products. Research and development in organic farming systems is seen as critical if organic conversion is to occur.

NSW Agriculture's Organic Demonstration Site

It has been recognised by industry and research providers that the most expedient method to increase conversion, and thus volume of organic produce, is to target key products with the greatest market potential. In 1998, NSW Agriculture received funds through the Natural Heritage Trust's National Landcare Program to establish an organic demonstration site at Yanco in southern NSW. The work at Yanco has looked at a number of key crops and has helped to highlight management problems and research opportunities. Crops produced to-date include melons, sweet corn, tomatoes, pumpkin, seed lettuce, linseed, safflower, sunflower, soybean, mungbean, popcorn and maize. In 1999, the block was expanded to include a area for winter cropping.

The project has aimed to increase the adoption of organic farming practices within the community by demonstrating:

- an holistic approach to resource management;
- organic conversion processes;
- improvement in soil fertility and biological activity by use of legumes, green manures, appropriate rotations, compost, organic fertilisers, and appropriate tillage;
- non-chemical and ecological methods of pest, disease and weed management;
- evaluation of crops for adaptability to diverse, low input cropping systems, and
- artificial wetlands to improve bio-diversity & on-farm nutrient management.

Regular field days are held at the demonstration site and producers are encouraged to visit the site if they wish to learn more about organic farming. Some tangible benefits of the site have already been identified. These include the increased adoption of organic farming practices amongst producers, the forging of producer and processor alliances, fostering of export development for organic products and the promotion of organic farming within educational institutions. In July 2001, the site was approved for organic certification, and in August 2001, the site was runner-up in the inaugural Organic Federation of Australia awards in the best education project category.

Site activities for 2001-2003

The next 2 years of trial work at the Yanco organic site will concentrate on researching management problems that have previously been identified, any new problems that become evident, as well as conducting demonstration planting's of crops that may have market potential for producers.

Soybeans have been identified as having the greatest potential for producers in the irrigated cropping areas of the Riverina. As a result of work undertaken at the Yanco organic site it became obvious that the greatest impediment to successful organic soybean production would be finding a satisfactory management regime for green vegetable bug (*Nezara viridula*). A new project will review and develop organic management options for the control of Green Vegetable Bug (*Nezara viridula*). The research will be undertaken at Yanco organic site and on a commercial organic farm.

An opportunity exists for organic production of processing tomatoes. A number of organic processed tomato products are currently imported into Australia. These include whole peel and pasta sauces. Potential may also exist for export of organic processed tomato products. A demonstration plant-

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UC Cooperative Extension Sample Costs to Produce Processing Tomatoes

Farm Advisors in California have recently completed a study looking at the sample costs of production for processing tomatoes in the San Joaquin and Sacramento Valley's.

This study is intended as a guide only, and can be used to make production decisions, determine potential returns, prepare budgets and evaluate production loans. Practices described are based on production practices considered typical for the crop and area, but will not apply to every situation. Sample costs for labour, materials, equipment and contracting are based on current figures.

The hypothetical farm operations, production practices, overhead and calculations are all described in the assumption section of the study.

Tables included in the study include:

- Costs per acre,
- Costs and Returns per acre,
- Monthly cash costs per acre,
- Whole Farm Annual Equipment, Investment, and Business Overhead Costs,
- Hourly Equipment Costs
- Ranging Analysis
- Costs per acre to Harvest Tomatoes

The Sample Costs of Production Studies for processing tomatoes may be downloaded for the Department of Agricultural Economics, UC Davis web site, http://www.agecon.ucdavis.edu/outreach/crop/cost.htm.

If you are unable to download a copy of this study from the internet please contact Liz Mann for assistance.

TOMATO SOLIDS BY VARIETY - FURTHER ANALYSIS

Background

Each year, APTRC publishes the Annual Industry Survey, which provides, probably, the most comprehensive analysis of any horticulture group. Besides providing data for use during contract negotiations, this Survey also provides information about the trends that result from R&D, and suggests where further funds should be invested.

The industry has identified that the benefits to be gained by growers and processors if soluble solids levels could be raised to 5.2 brix is worth a substantial amount each year, and recent funding has been directed to understand more about the factors that affect solids.

Part of the Survey relates to soluble solids by variety, as detailed in Table 1.11B. However, this table could be misleading in that the indicated relativity of solids by variety could possibly be influenced by other variables. The main variables at issue are:

Management: As drip crops seem to yield lower solids than furrow crops, a variety that is grown predominantly on drip might be thought to have lower solids than one grown mainly on furrow.

Location: If soils and microclimate tend to impact more favourably on solids in one district compared to another, then varieties grown predominantly in the high solids yielding districts might be thought to yield higher everywhere.

Solids measurement: The average solids measured by processors may not be the same. This may be due to differences in crop emphasis (variety, management or district) or there may be inconsistencies in measurement. As different processors emphasise different varieties, any measurement inconsistency would influence the solids by variety ranking.

2002 Harvest

For the 2002 Annual Industry Survey, additional groups of information will be collected. Each of the five major processors will collect data relating to each incoming load that includes:

- Variety
- Type of irrigation
- Soluble solids measurement, and
- Agricultural district.

Some processors will need to modify their data collection systems prior to the start of the season and all will need to involve growers to some extent to ensure that variety and paddock information is accurately provided. Growers are also requested to participate in providing this information for each load.

Taken in conjunction with another soluble solids project that will be planned this year, it is hoped that we will gain additional information about the variables that affect solids.

Variety screening trials for season 2001/2

Varieties	Growers	Location	Irrigation System	Planting Date	Expected time Of Harvest
Early - Rep 1.	R & B Stillard	Barooga	Drip	27/9 -d/s1	2nd week Feb
Rep 2	J Kennedy	Corop	Drip	3/11 - t/p	3rd week Feb
Full row	S, G & A Rorato	Jerilderie	Furrow	9/10 - d/s	4th week Feb
Paste - Rep 1.	S, G & A Rorato2	Jerilderie	Furrow	30/11 - d/s	3rd week March
Rep 2	D. Rosaia	Colbinabbin	Drip	30/10 - d/s	2nd week March
Full row	D Moon/M Hill	Timmering	Drip	24/11 - t/p	2nd week March
Whole Peel	J Neessen, Rep 1. M Kirchhoffer	Jerilderie	Drip	20/11 - d/s	1st week April
Rep 2	I & D Lanyon	Boort	Furrow	25/10 - d/s	1st week March
Full row	J, R & P Pike	Colbinabbin	Furrow	7/11 - d/s	4th week March
All lines	NRE	Tatura	Drip	27/11 - t/p	1st week April

1. *d/s = direct seeded; t/p = transplanted*
2. *Double row planting - all other sites on single rows.*

Replicated lines:

Early	**Full Season Paste**	**Full Season Whole-peel**
CXD 204	AP 708	ES 2900
Early Nema Pride 113	CXD 215	ES 96-100 (Ruphus)
Heinz 8704[NSW]	ES 97-100 (Frantic)	Falcorosso
Heinz 9280	Heinz 4001	Heinz 4001
Heinz 9507	Heinz 9035	Heinz 8704[V]
Heinz 9928	Heinz 9614	Hypeel 513
NDM 553	Heinz 9927[V]	Hypeel 696
RG 611	PTX 3092	RG 15
SPS 6898[V]	SPS 7482	SPS 4399
Sun 644	U 200	SPS 5179
	UGX 709[V]	TOP 0366[V]
	V50-39225-2	TOP 9087[V]

([NSW] & [V] denotes planted at NSW or Vic sites only)

Field days will be advertised prior to harvest, and all other enquiries relating to the trials should be directed to :
Bill Ashcroft, Roger Ashburner or Ross Coulston at NRE Tatura on 03 58 335 222, or
Stephen Wade at NSW Agriculture Finley on 03 58 831 644.

EXCITING EVENTS FOR PROCESSING TOMATO GROWERS

Marilyn Lanyon, along with Katie Kirkham-Rathjen have been selected to represent Central Victoria, as exhibitors in Singapore at the -

The 13th Asian International Exhibition of Food and Drinks, Hotel, Restaurant & Catering Equipment, Supplies & Services and Conference with the FHA Culinary Challenge, 9th-12th April, 2002

Marilyn will be representing her business "Simply Tomatoes", and promoting her new product "Simply Green Tomatoes. (Marilyn is proposing to have a local launch of her product in the near future.)

Katie will be representing Hennings View Vineyard, and promoting Hennings 2000 Shiraz.

Other food products from Central Victoria include: Pyramid Salt, Yabbie Farms, and Gourmet Jams and Sauces.

UPCOMING EVENTS

Grower Visit to Another Industry,
Dates for this visit: 17th-18th Jan, 2002—Additional information will be sent soon.

Annual Pre-Harvest Industry Dinner
Saturday, 19th January, 2002 7:30-8:00pm La-Porchetta, Echuca RSVP Liz: 0427 857 578

Discussion Group Meetings January 2002 (Including Representatives from BeeLine Navigator Systems)
Monday 21st Jerilderie - Olive Tree Café (7:30pm)
Tuesday 22nd Boort - Railway Hotel (7:30pm)
Wednesday 23rd Rochester – Criterion Hotel (7:30pm)

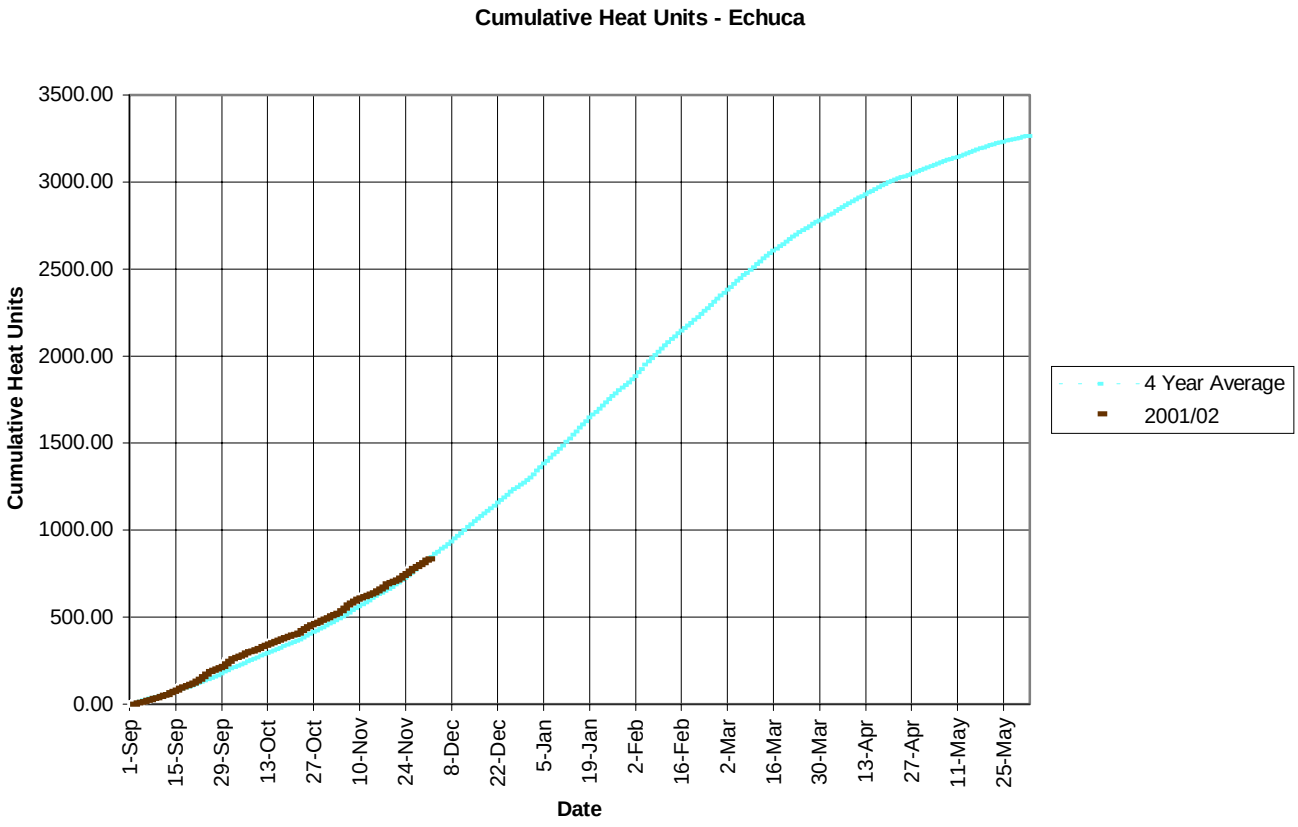
Functional Foods Conference 2002: Through Innovation to Market
14th-15th March, 2002 Melbourne Contact: Alison Johnson, Food Science Australia (03) 9731 3417

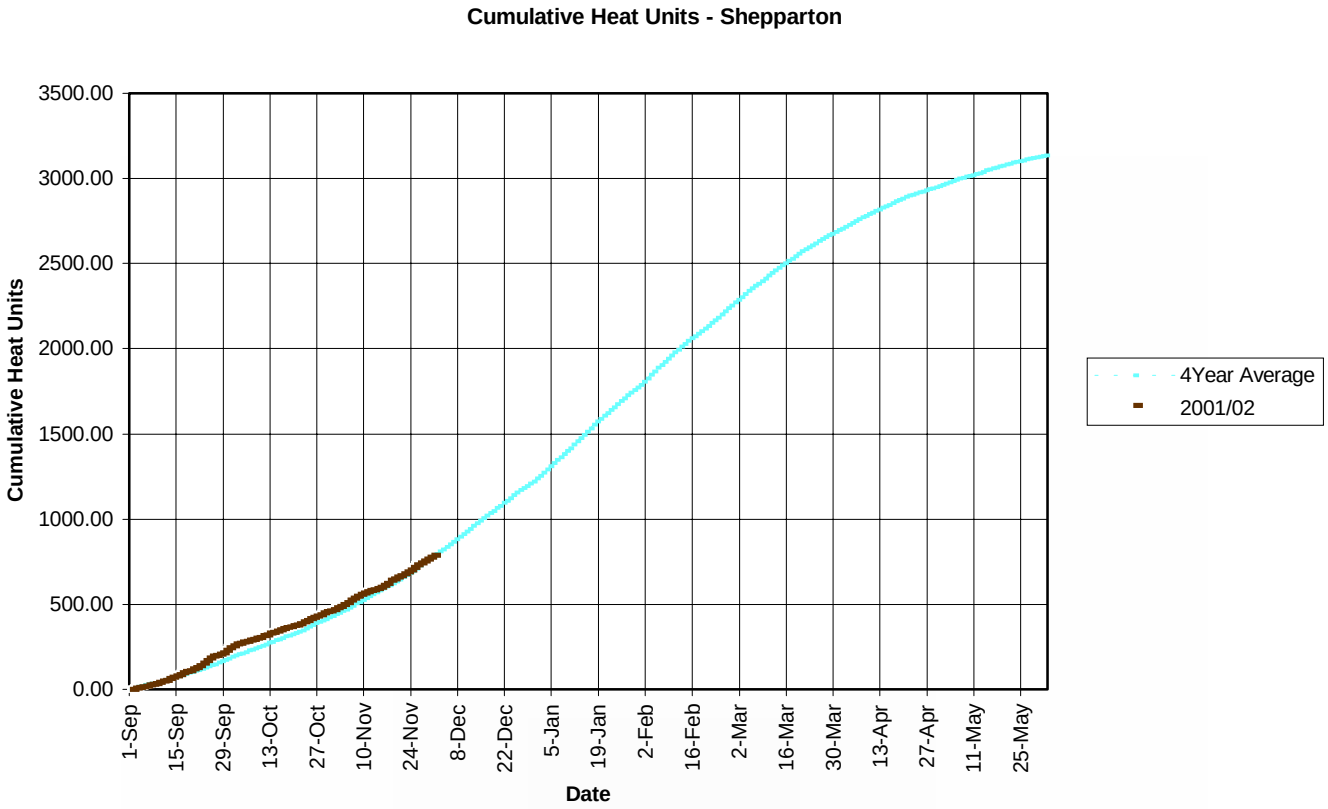
3rd World Congress on Rural Women Madrid, Spain,
2nd-4th October, 2002, It is likely that matching funding through the Win Hort project will be available to encourage women to attend this.

Irrigation Australia 2002 Conference and Exhibition
21st-23rd May, 2002, Sydney

Annual Processing Tomato R & D Conference and Dinner
Thursday 30th May 2002, Echuca-Moama

5th World Congress & 8th ISHS Symposium on the Processing Tomato
Istanbul, Turkey, 8th-10th June, 2002
A grower tour is proposed for the dates 5th-21st June, visiting farms and researchers in Turkey/Israel/UK




Cumulative Heat Units - Shepparton
Cumulative Heat Units
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3000.00
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2000.00
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1-Sep
15-Sep
29-Sep
13-Oct
27-Oct
10-Nov
24-Nov
8-Dec
22-Dec
5-Jan
19-Jan
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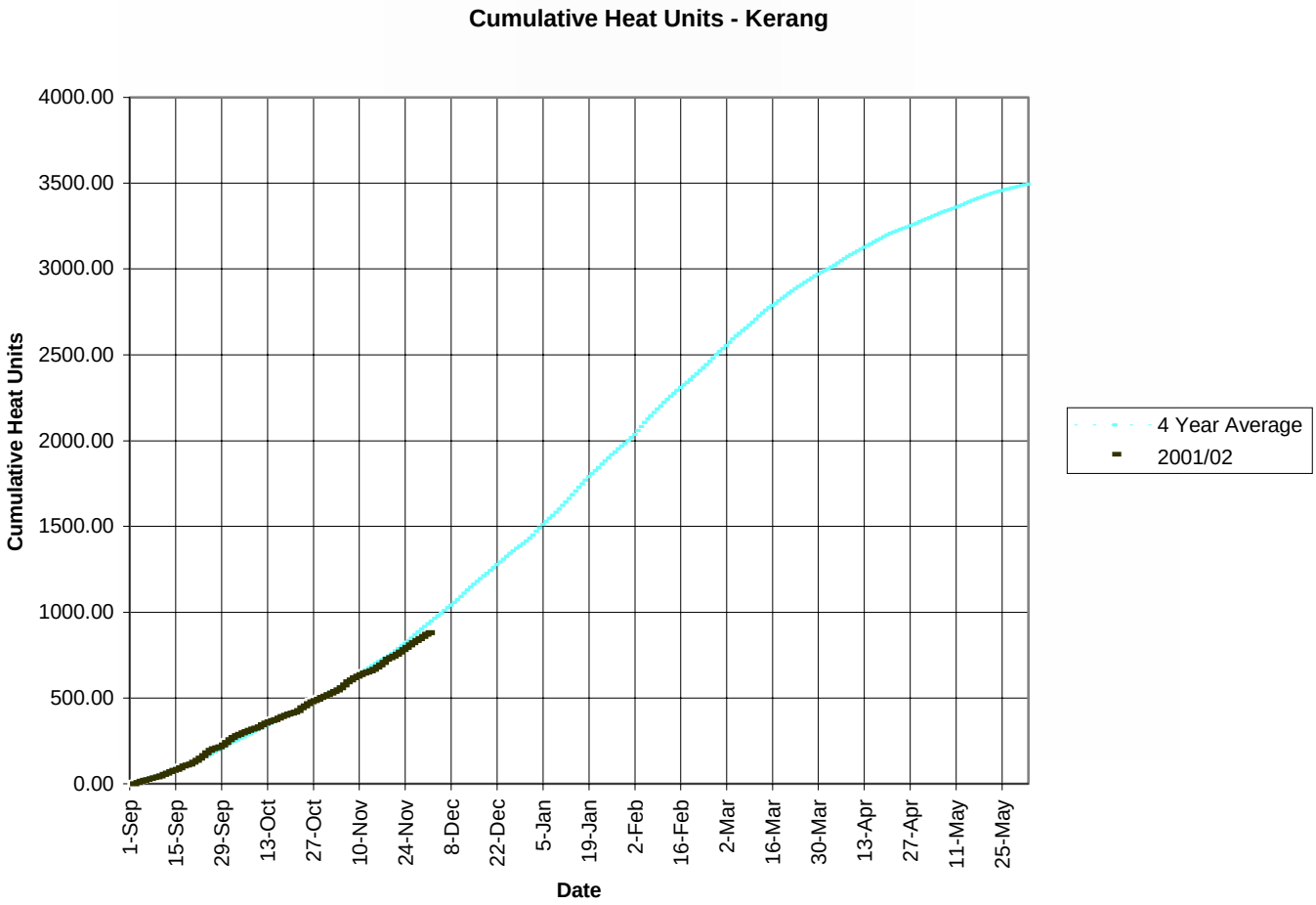
Date
4Year Average
2001/02


Cumulative Heat Units - Kerang
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1-Sep
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29-Sep
13-Oct
27-Oct
10-Nov
24-Nov
8-Dec
22-Dec
5-Jan
19-Jan
2-Feb
16-Feb
2-Mar
16-Mar
30-Mar
13-Apr
27-Apr
11-May
25-May
Date
4 Year Average
2001/02

(Continued from page 3)

ing will be incorporated into the 2001 summer rotation. Evaluation of a range of varieties will determine any varietal differences under an organic management regime.

Other evaluations will include organic sesame and broccoli and determining the efficacy of milk for controlling mildew on cucurbits.

Above: Organic lettuce seed production at Yanco organic demonstration site

Above:
Field day participants inspect hot air weeder demonstrated at Yanco

TOMATO HARVESTERS FOR SALE

1985 F.M.C. 5600TE Tomato Harvester,
150 hp. John Deere Engine, 2620 hours, brush shaker,
Tomato 2 colour sorters. F.W.D. F.W.S. V.G.C.,
Ready to Work.
$65,000 GST Inc.
Phone: 03 5883 9447 (J.H. & D.M. Robinson)

1995 Johnson Tomato Harvester, 2946 Shaker Hours, 6016 Engine (J.D.) Hours. Well Maintained High Capacity Unit.
$75,000 Crop Terms Available
Phone: 0418 100 253 (Tony Sawers)

Blackwelder Tomato Harvester in Good Condition
BEST OFFER
Phone: (03) 5829 9234 or 0413 389 242 (R. & L. Ahmet)

Lely Power Harrow. 4m Wide, Very Good Condition.
Also with a Bedformer Attachment $8,000 O.N.O.
Phone: (03) 5829 9234 or 0413 389 242

Are You Wondering What Can be Done With Used Engine Oil ?

Triple R Waste Management offers a Free On-Farm Pickup of any used engine oil for quantities over 600 L.

If you do not have 600 L on your farm you may be able to organise a central pickup point for waste oil from a group of growers in your area.

Phone: Rachel on (03) 9369 0455

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