



TOMATO TOPICS



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NEWS and INFORMATION
FOR THE PROCESSING TOMATO INDUSTRY

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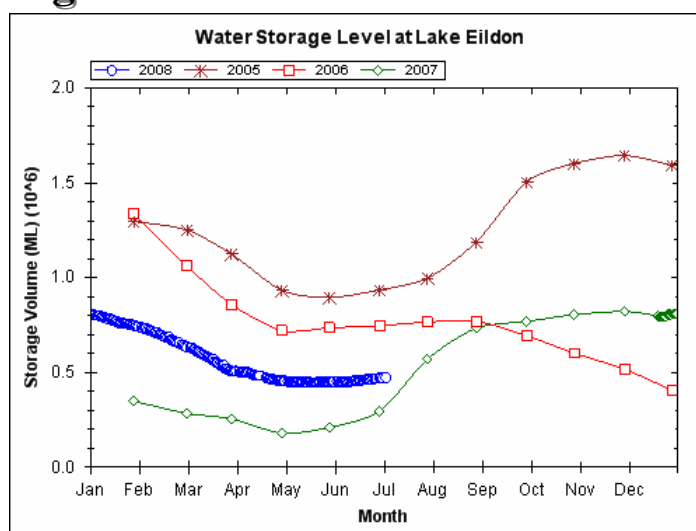
The 2008/09 Irrigation Season

Once again Northern Victoria and Southern NSW appear to be experiencing drought conditions. This has come about as the equatorial Pacific Ocean has been gradually warming during autumn and early winter resulting in the decay of the 2007/08 La Niña event. Computer models indicate a continuation of this warming trend over the coming months.

As a result the chances of exceeding the median rainfall over July to September are between 30-40% over much of Southern Australia, including the processing tomato region and catchments. This means the chances of below normal falls in these areas are relatively high (between 60 to 70%): for every ten years with ocean patterns like the present, about six or seven July to September periods are expected to be drier than average in these areas, while about three or four are wetter.

Goulburn Murray Water has just announced that at this stage the opening allocations on both the Goulburn and Murray Irrigation Systems will be 0%. Although current dam levels are higher than the same time last year the volume does include carryover from the 2007/08 season. At this stage there is not sufficient water available to cover system operating requirements. The announcement on the 1st July 2008 then goes on to say that under dry conditions – inflow volumes that have 9 chances in 10 of being exceeded the Murray system has no allocation for the season and the Goulburn system reaches 14% by 15th February 2009.

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8th World Congress of the Processing Tomato

In June 2008 24 growers, processors and support industry personnel from Australia attended the 8th World Congress and on the Processing Tomato in Ontario, Canada. Attending this conference provided an opportunity for people to interact with growers/processors/support service personnel from across the world, providing an opportunity to gather information on a range of topics relevant to the processing tomato industry.

Currently the global processing tomato industry is experiencing an increase in costs. Input costs, in particular diesel, fertilisers, chemicals and packaging have significantly increased. In addition the price paid for alternative crops such as cereals continues to increase due to the biofuel debate. In Italy processors say that their main competitors this year are not other countries but alternative crops like maize and wheat (FoodNews, May 2008). This is similar to the situation in California where many growers are not only faced with an increase in the cost of inputs but are also facing low irrigation allocations. As a result they are reducing the area planted to processing tomatoes to cope with the reduced availability of irrigation water.

Processors across the world have been required to lift prices for raw material to acquire supplies. In Europe it has been reported that the average raw material price increase is between 40-60% (FoodNews, May 2008).

The global demand for processed tomato product remains high, with prices continuing to increase. In Italy experts think that tomato paste will be at least 30% more expensive in 2008 compared to 2007, with other tomato products between 20-25% higher (FoodNews, May 2008). In addition the weak US dollar has seen Californian paste exports increase during the past months, ensuring paste supplies going forth are minimal.

In a report outlining World Consumption it was also stated that in 2005 the consumption of processed tomato product exceeded the level of production. The annual growth of world consumption is at +2.9% compared to that of world production at +2.7%.

Speakers at the congress also included Dr. Tim Ball, an Environmental Consultant who spoke on "*Climate and Water Resources—Impact of Changing Global Weather Patterns on Water Resources and Tomato Production*". Tim presented some interesting data which challenged the current theory of "Global Warming". He stated that if global warming is occurring then we should find more moisture in the air, in turn leading to more precipitation in the future, not drought as currently experienced in many parts of the world. He also presented data which demonstrated that as temperatures have increased in the past the levels of CO₂ in the atmosphere have increased. This is contrary to popular belief which says that as the level of CO₂ increases; as a result of human activity, then the temperature increases. He also stated that the atmospheric levels of CO₂ are at the lowest level in 600 million years.

Other speakers on the final day of the congress included Professor David Hughes, Emeritus Professor of Food Marketing, Imperial College London speaking on "*Consumer Trends in the Food Industry*". David presented interesting data on the different segments of the population and potential marketing strategies to engage these segments.

The final speaker for the congress was Dr. David Foot, a Demographer and Economist, speaking on "*Global Population Aging and the Food Industry*". He presented data detailing the composition of populations in a number of countries across the world. In a number of countries, including the USA, Canada and Australia the number of people in each age group has decreased in time. This raises a number of issues including the ability of a country to support an increasing number of aging people and also the ability to source sufficient numbers of younger people to fill the required jobs. This trend of an aging population was not consistent across the world, therefore are some countries better positioned for development in the future?

(copies of these powerpoint presentation may be obtained from Liz Mann in the coming months)

Tour of the Processing Tomato Region in California

Prior to attending the World Congress on the Processing Tomato in Ontario, Canada, 14 growers from Australia participated in a tour of the processing tomato production region in California. The tour started on Monday 2nd June with a visit to John Diener's farm. John operates a diverse farming business, not only growing processing tomatoes but a range of annual and perennial crops. In addition he has been involved in the establishment of an on farm pilot plant used to reclaim drainage water. John's attitude was that the drainage water was in fact a precious resource which could be reused again with very little of it ever leaving the property.

This plant was interesting to visit, with the water going through a number of stages to remove not only the calcium salts but also other elements including selenium, which were then sold off the farm while returning the water to a quality suitable for irrigation. John made the comment that at each stage the end products need to produce a return higher than the cost of the inputs.

That afternoon we visited Jim Beecher's farming business called Farming D, before heading to Fresno to meet with other local growers and processors over dinner. During the day growers all we met with commented on the impact of the rising diesel and fertiliser prices, along with the impact of low allocations of irrigation water. At the same time processors commented on the high demand and prices for processed tomato product which they were currently experiencing.

On Tuesday 3rd June we met with Marlin Bettencourt, a silage contractor supplying fodder to the local dairy industry. We also visited a number of dairy farms with Marlin, all dairy herds were fed in feed sheds/pads with all fodder either purchased off farm or produced elsewhere on their farm and cut and carried to the feed shed. This appears to be the way of the future in Northern Victoria and provides an opportunity for processing tomato growers to utilise their drip irrigation systems to produce silage/hay/grain for local dairies.

That night we travelled to Stockton and had dinner at Roger and Shirley Scriven's home and also met

up with Chuck and Kathy Rivara.

On Wednesday we visited two farming businesses with Roger Scriven. The first was Victoria Island Farms which produce a range of crops including processing tomatoes and blueberries. The second was Del Terra Farms. This business also produces a range of crops including processing tomatoes, asparagus and corn.

Del Terra Farms built an asparagus packing shed in the mid 1990's to pack their crop for sale. This shed was only utilised for 3 months of the year so one of the owners decided to diversify into packing locally grown sweet corn to make better use of the shed. This part of the business has grown with the shed now used all year round for packing sweet corn. They aim to sell corn under their name for 12 months of the year which has the same taste and quality. To do this they contract a number of other growers from Northern through Southern California and into Mexico.

On Thursday the group headed to UC Davis and met up with Gene Miyao. Here we visited the UC Sustainable Ag field and facilities. Previously 2 projects were conducted by UC Davis on sustainability, these were the Sustainable Agricultural Farming Systems (SAFS) project and the Long Term Research on Agricultural Systems (LTRAS). These have now been combined and are conducted on the previous LTRAS location. The focus of this visit was on efficient tillage operations to prepare beds for processing tomato production following cover crops or crops which have left considerable crop residue on the soil surface. With the use of the available equipment growers are able to accomplish multiple tasks in one pass. Some of the equipment inspected by growers included strip-tillers and ground driven bed reformers. Further information on this work may be obtained from: <http://safs.ucdavis.edu/>

Later that day the group, along with Gene Miyao and Chuck Rivara visited Blake Harlan. Blake grows a range of crops including processing tomatoes and lucerne. He has recently established an on

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farm hay cubing business to diversify his farm business which previously relied heavily on processing tomatoes.

Hay cubes produced by Blake are 3 times more dense than hay bales off the field. He grows approximately 2,700 acres of lucerne. The cubes are typically made with a mix of 80% lucerne and 20% oats, or 75% lucerne, 20% oats and 5% corn. Growing and cubing the lucerne on farm enables him to produce a product which is consistent and sold directly to customers.

Following the visit to Blake Harlan's the group visited another farm belonging to Tony Turkevich. Tony and his son operate a diversified farming business producing processing tomatoes, seed crops, citrus and a vineyard.

It was noted by the group that all Californian processing tomato growers visited during the week spoke about the need to diversify their farm business to not be as reliant upon processing tomato production as they had been in the past.



11th ISHS Symposium on the Processing Tomato

The 11th ISHS included a number of oral and poster presentations in topics ranging from Crop Protection, Tomato Evaporation Technologies, Nutrition and Health and Technology Transfer.

A paper from Hungary looking at the effect of water and potassium supplement on lycopene content of processing tomatoes found that in all of the irrigated plants a higher yield and Brix was obtained as a result of the higher amount of applied potassium. The highest lycopene content was found in unirrigated plants with high potassium.

Mark Gleason from Iowa, USA presented a paper on *Assays for Seedborne Bacteria: What They Can and Can't Do*. He mentioned that seed testing for bacteria is difficult as some bacteria can mimic others. Target species can also be heterogenous in pathogenicity and detectability, thus full confidence in any single test is difficult.

Darren Robinson from Ontario presented a poster on the *Effect of Timing and Rate on Tomato tolerance to Postemergence Applications of S-Metolachlor*. The conclusions from this were that tomatoes showed excellent tolerance to post emergence applications, 28 days after planting, at rates of 400, 600 and 800 g a.i.ha⁻¹, after an initial pre-plant incorporated application of s-metolachlor + metribuzin (800 + 375 g a.i.ha⁻¹).

Another poster from Ontario titled "*Prior Winter Wheat Straw Management Influences Processing Tomato Yield But Not Quality*". This looked at the effect of maintaining wheat straw in the paddock prior to planting a processing tomato crop. From the 06-07 work it was found that red and total tomato yields were significantly higher in the blocks where wheat straw was maintained on the soil surface compared to either removing the straw or adding autumn nitrogen to encourage soil organisms to break down the straw.

Tomatoes and Health was a topic of discussion at various times during the ISHS and Congress. Research has shown that lycopene has an antioxidant capacity twice more than β -carotene and has both anticarcinogenic and antiatherogenic properties in regard to cellular growth and modulating immunological mechanisms. In addition it has been found that there is double the amount of Vitamin C in tomato juice compared to orange juice for the same calorie uptake.

Research from Japan has also found evidence that lycopene may be effective in preventing bone loss.

In addition to lycopene tomatoes also contain a number of bioactive essential and non-essential compounds. An Integrated EU-funded Project called LYCOCARD has been established to investigate the role of lycopene and processing tomatoes in reducing the risk of cardiovascular diseases. Processing tomato producers, clinical and analytical scientists are all involved in this project. More information can be obtained from the website: www.lycocard.com



UPCOMING EVENTS

Rural Futures *Young Farmers Forum, 'What is your future?'*

Monday 21st July 2008

DPI Rutherglen

3:30 – 8:30 pm

RSVP Anne Shaw, AAVAF, **phone** 0458 216 088, **email** anne.shaw@alpvalleys.com.au

MEAL PROVIDED, NO COST

RSVP: WEDNESDAY 16TH JULY, BOOKINGS ESSENTIAL

Speakers

Traci Griffin, DPI: Climate Change – *operating environment, policy adaptation and mitigation*

Neil Barr, DPI: Farm and local population change, social changes on the farm

Mike Stephens: Succession Planning and farm employment conditions

Jill Briggs: Rural Training Initiatives, will facilitate discussion sessions

Proposed Regional Grower meetings in the week beginning 18th August 2008

What's in a Name? Plant Variety Names and Trade Marks in Horticulture (*Free Conference*)

Digital Harbour, Docklands, Melbourne 9.30am – 4pm, Wednesday, 22 October 2008

Local Experts Appointed to Help Horticulture (annual and perennial) Irrigators with Decision Making

Fruit Growers Victoria has been contracted to help horticulture irrigators in the Goulburn Valley and Swan Hill access the financial and agronomic information they need to make business decisions in the face of reduced water availability.

Through the project, growers are able to access one-on-one, free, confidential sessions with local Extension Providers who have a background in horticulture or finance.

John Wilson, General Manager of Fruit Growers

Victoria, says the service is designed to help growers manage their businesses today, and plan for tomorrow.

“There are some big decisions for horticulturists to make this year that can have a long-term impact. This is particularly true for orchardists and other perennial croppers as well as annual croppers with significant capital infrastructure.”

“Our Extension Providers can act as a sounding board as you work through the options, whether that's pulling trees, buying or selling water, expanding or trying something entirely different,” Mr Wilson said.

Please contact Liz Mann for further information on this program.

INSECTICIDES REGISTERED FOR WESTERN FLOWER THRIPS CONTROL - MAY 2008

Trade Name	Crops	Active ingredient	Product name/valid	Insecticide chemical group	NS	Vic
					W	
PER10670- ABAMECTIN/ VARIOUS CROPS	tomatoes, cucumber, eggplant, ornamentals (non bearing) and strawberries.	abamectin (18 g/L)	PERMIT (30/4/11)	Group 6A	Y	N
PER10267- ACEPHATE/ VARIOUS CROPS	ornamentals (non bearing), tomatoes and peppers.	acephate	PERMIT (30/9/10)	Group 1B	Y	N
PER8321- ENDOSULFAN/ VARIOUS CROPS	strawberries, cucumbers, eggplant, peppers, tomatoes, ornamentals (non bearing)	endosulfan (350 g/L)	PERMIT (30/9/08)	Group 2A	Y	N
PER10265- METHIDATHION/ VARIOUS CROPS	peppers, tomatoes, eggplant and ornamentals	methidathion (400 g/L)	PERMIT (30/9/12)	Group 1B	Y	N
PER9832- METHOMYL/ VARIOUS CROPS	peppers, tomatoes, cucumber, eggplant and non-bearing ornamentals	methomyl (225 g/L)	PERMIT (30/9/08)	Group 1A	Y	N
SUCCESS2	brassicas, cucurbits, fruiting vegetables, leafy vegetables, legume vegetables, ornamentals, berryfruit, pome fruit, stone fruit	spinosad (240 g/L)	DOW	Group 5A	Y	Y
ENTRUST NATURALYTE	brassicas, cucurbits, tomato, leafy vegetables, legume vegetables, ornamentals, berryfruit, pome fruit, stone fruit	spinosad (800 g/kg)	DOW	Group 5A	Y	Y

Full details of all permits are available on the APVMA website, <http://www.apvma.gov.au/permits/permits.shtml>

Import Conditions for Tomato Seed Imports

Biosecurity Australia has provided advice that imports of seed of tomato seed pose an unacceptably high level of quarantine risk due to the possible introduction of potato spindle tuber viroid (PSTVd). Pending legislative amendment to implement the advice provided by Biosecurity Australia, interim measures will be put in place to mitigate the risk of the introduction of PSTVd into Australia.

Given the unacceptably high level of quarantine risk identified, all tomato seed imported into Australia will be ordered into quarantine. The imported tomato seed may be released from quarantine once the documentation referred to below is provided to demonstrate that the risk that the tomato seed will introduce potato PSTVd is acceptably low.

To demonstrate that tomato seed consignments that

are shipped after 24 June 2008 pose an acceptably low risk in relation to the introduction of PSTVd, the tomato seeds must now be accompanied by an official government Phytosanitary Certificate with a declaration that:

‘The tomato seed in lot(s) (insert lot numbers) in the consignment was grown in (insert name of country) in an area that is free of potato spindle tuber viroid, based on an official survey covering the complete range of potato spindle tuber viroid hosts.’ OR

‘The tomato seed in lot(s) (insert lot numbers) in the consignment was derived from seed and pollen parent plants grown by (insert name of producer) in (insert name of country) that were tested during the growing period and found free of potato spindle tuber viroid.’

Tomato seed shipped after 24 June 2008 that is not accompanied by a valid Phytosanitary Certificate with the required additional declarations will not be permitted entry into Australia.

Processing Tomato Industry 2007/08

150,940 tonnes of tomatoes were delivered for processing during the 2007/08 season. This is 39% below last year's intake. The average field yield was approximately 65 tonne/ha.

The average tomato solids level was 5.16%

16 specialist processing tomato growers supplied the tonnes processed during the 2007 harvest in addition to one research farm.

Planted area was approximately 2,308ha. 74% of the area was drip irrigated and 66% sown with transplants.

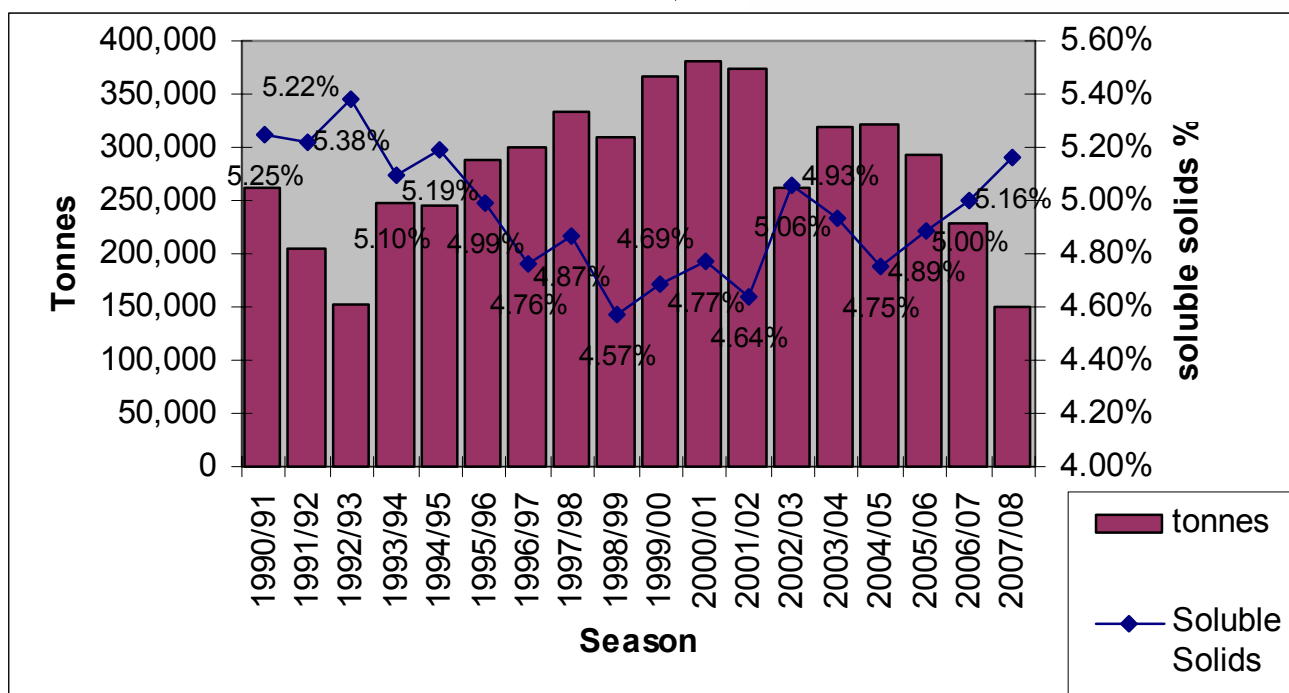


Table Soluble Solids and Yield History [Source: - Industry Survey & Horn, B (2000, 2001, 2002, 2003)]

Note: Soluble Solids for 2002/03, were calculated from approximately 180,000 tonnes. Soluble Solids from 2003/04 and 2004/05 are calculated from approximately 265,000 tonnes. Soluble solids for 2006/07 are calculated from approximately 214,500 tonnes. Soluble solids for 2007/08 are calculated from approximately 131,879 tonnes.

Tomatoes: the New Skin Care

(<http://health.ninemsn.com.au/article.aspx?id=456069>)

A new, study suggests that adding five tablespoons of tomato paste to your daily diet improves the skin's ability to protect against powerful UVA and UVB rays, which can lead to premature ageing and skin cancer. According to the study, the antioxidant lycopene is the magical ingredient, which is found in higher concentrations in tomatoes that have been cooked.

The study showed that after a three-month period, the people who were eating the tomato-based meals had 33% more protection against sunburn — the equivalent of a very low factor sunscreen. They

were also found to have much higher levels of pro-collagen, a molecule that gives the skin its structure and keeps it firm.

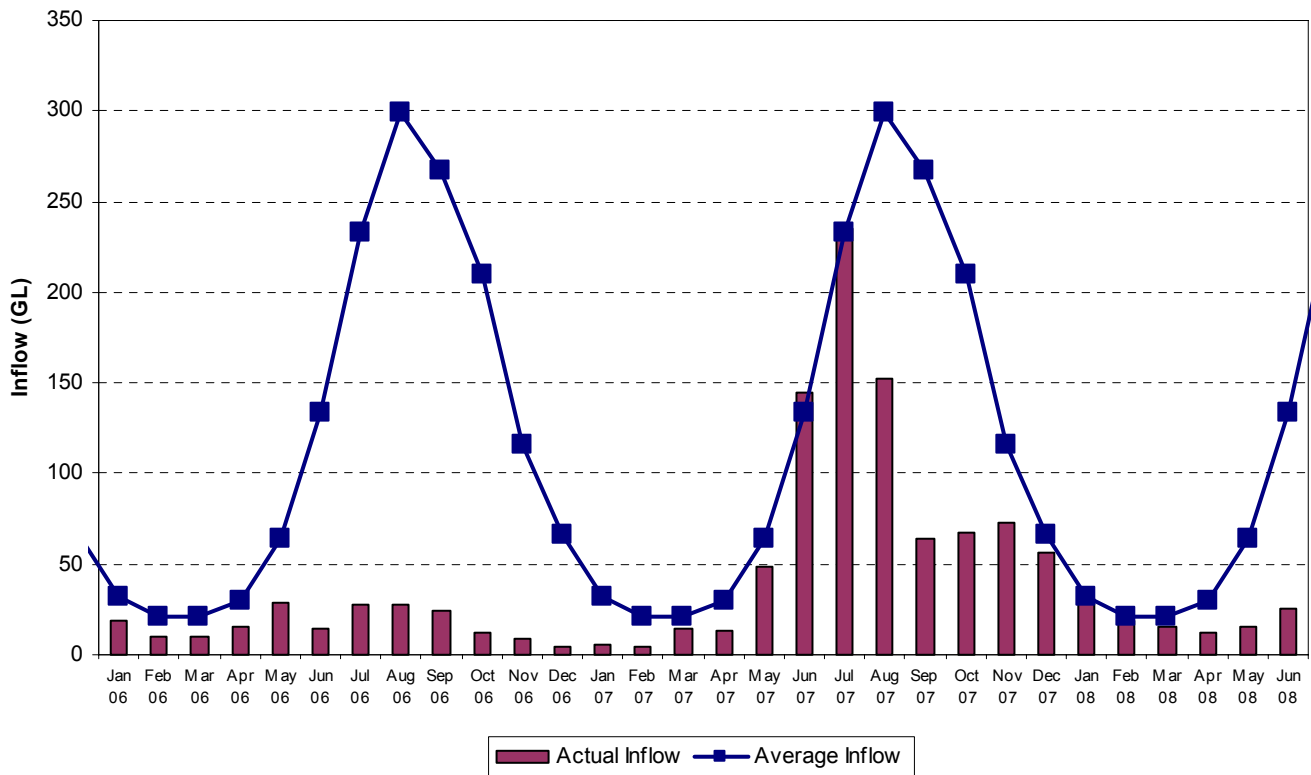
But while Professor Rhodes from the UK, agreed the tomato-based diet "boosted the level of pro-collagen significantly", which suggested the diet has the potential to reverse the ageing process, the researchers were quick to warn that eating tomatoes does not give you the green light to ditch the sunscreen. Instead it should be viewed as a "helpful addition" to your SPF30+.

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Recent inflows have decreased in the past months as shown in the graph below, at this stage inflows are similar to the 2006/07 season. Rainfall over

the coming months will be critical in determining the irrigation allocations during the 2008/09 season.

Monthly Inflow to Lake Eldon



ACKNOWLEDGMENTS:

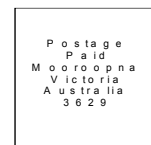
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