TOMATO TOPICS

Hort Innovation
Strategic levy investment

PROCESSING TOMATO FUND

Australian Processing Tomato Research Council Inc.

NEWS and INFORMATION
FOR THE PROCESSING TOMATO INDUSTRY

ISSN 1038-3522 **March 2025** **VOL. 35 NO. 1**

Fresh Market Tomatoes, Drones and Evaluation Trials

On January 17th, the APTRC hosted its annual Industry Field Day, proudly sponsored by Netafim, I K Caldwell, and SLTec. The day commenced with 58 members visiting a Fresh Tomato Farm, Gilleston Fresh Produce, hosted by business owner Ange Borzillo. Ange shared insights into his approach to growing high quality, firm tomatoes, which integrates cutting-edge chemical and fertiliser application technologies to compliment tried and tested management strategies.

Ange reflected on the challenges of tighter rotations in the late 1990s, which led to increased disease issues and discussed how his current rotation system, alternating Canola and Wheat with tomatoes over a four- to five-year cycle, has proven effective in managing disease resistance and soil health.

Planting at Gilleston begins in September and concludes by mid-to-late January, with just over 11,000 plants per hectare. Tomatoes are harvested six to ten times per season, ideally at the three-quarter colour stage. "Entice" is currently regarded as the most suitable fresh-market tomato cultivar for the region.

While the early 1990s saw around 30 active field grown enterprises in the region, the number has now consolidated to five, with glasshouses supplying the remainder of the market demand.

The second stop was Kennedy Agricultural in Corop, where tomato farm manager Brendan Stewart ("Brenzo") and John Kennedy provided an overview of their seasonal operations. A key highlight of the block we visited was Kennedy's use of thick-wall drip tape, which has effectively irrigated crops for approximately 40 years. John originally dug up the tape from another farm in the 1990s and then

Also in this edition:

reinstalled in Corop, where it has now functioned for 32 years. Its durability is credited to its thick-walled construction, which enhances resistance to insect damage.

Brenzo also detailed the importance of potassium supplementation, both as part of base fertiliser applications and through liquid top-ups to meet seasonal demand. This season the farm grew UG16112, H1015, and H3402 tomato varieties.

A drone demonstration followed, led by Aaron Zantuck of Southern Ag Drones. Drawing on their recent work in the tomato industry at GoFARM, the team showcased drone-based spray application, particularly beneficial when field access is restricted.

The drones are capable of spraying in 8-metre swaths at a height of 3 metres and speeds of up to 65 km/h, covering 120-180 hectares per day. For small-volume spreading, 9-metre swaths at 9 metres high can be achieved at 65 km/h, reaching 250-500 hectares per day. High-rate spreading can cover 20-30 hectares per day.

The day concluded at Rich River Golf Club, where 94 participants enjoyed an evening of socialising, reinforcing industry connections and celebrating another successful Field Day.

The final visit of the day was to Campaspe Ag in Rochester, where James Weeks had collaborated with Mark and Sarah Sargeant of OptiAg to establish a successful APTRC Cultivar Evaluation trial site.

The trial site was of interest to seed reps in particular, showing what their cultivars can do on a high yielding management system with a more benign summer than we've had for a few years.

Climate Outlook

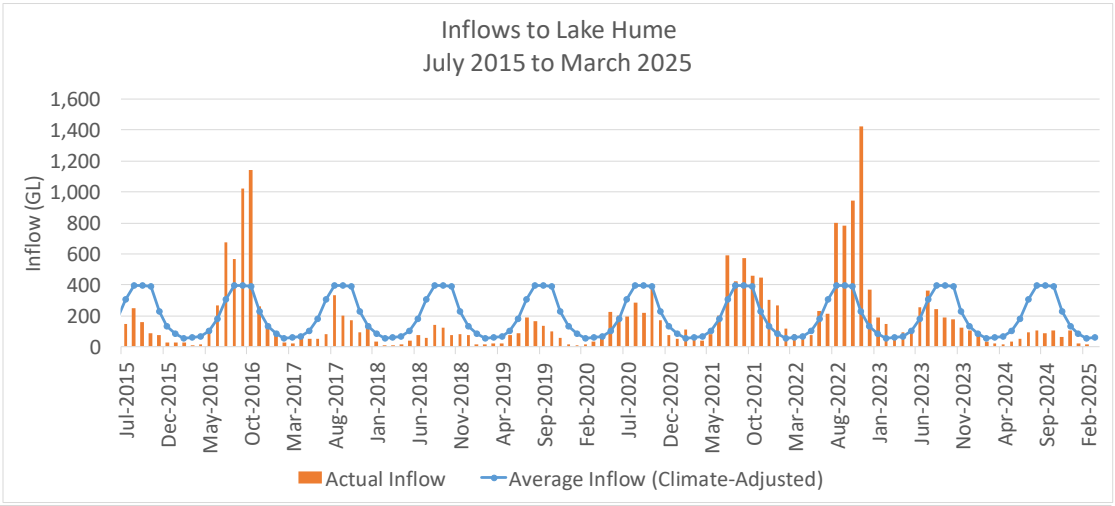
As we move through Autumn, Summer appears very reluctant to let us go this year. And according to the Weather Bureau these conditions look set to continue, with warmer than average temperatures (both day and night) across the country through to June. Rainfall is predicted to be around average over this period, although it may not amount to much across tomato growing regions. Sea surface temperatures remain at or near record levels around the continent, contributing to some of the recent storm events across north-eastern Australia. The El Niño-Southern Oscillation (ENSO) is currently neutral, and the Bureau's climate models predict ENSO will remain neutral (neither El Niño nor La Niña) until at least August.

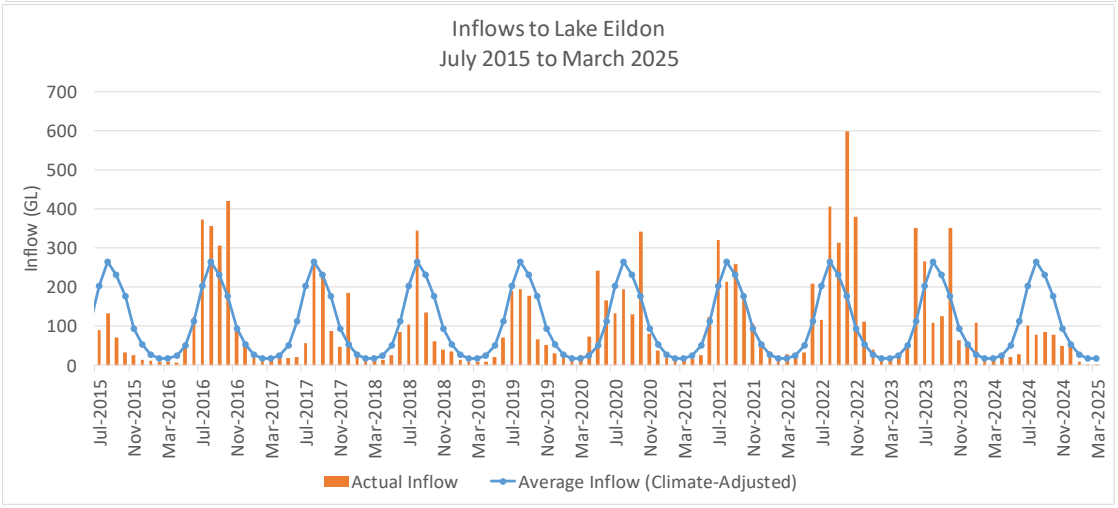
Source: Bureau of Meteorology

Water Inflows (Supplied by Mark Bailey—Goulburn-Murray Water)

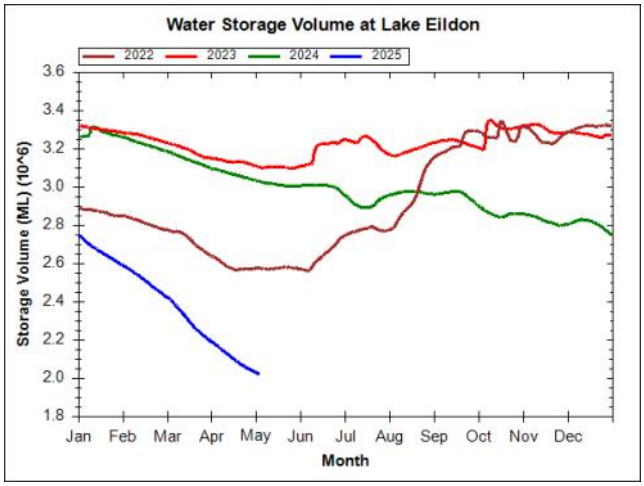
The recent lack of meaningful rainfall means inflow volumes are very low. The volumes recorded since 1 July 2024 would be bettered in around 9 years out of 10 for both storages. This is consistent with the "Dry" scenario for seasonal determination outlooks that are produced by the Northern Victorian Resource Manager.

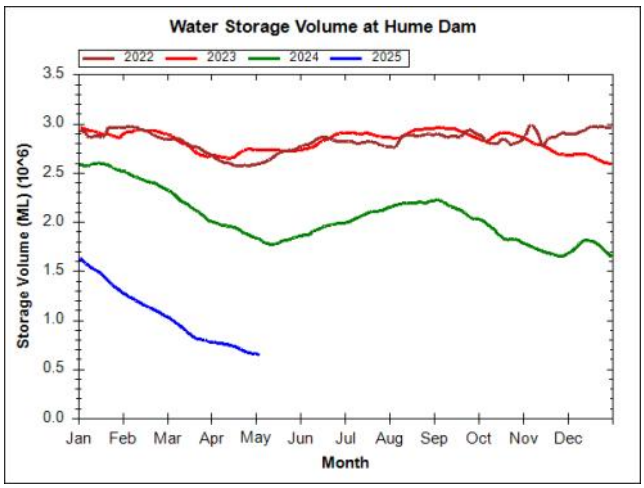
Averages are not necessarily a good indicator of conditions, because the differences between low and high values can cause skewing. However, it is worth noting that the March 2025 inflow to Lake Eildon was only 8 per cent of the long-term average.





Water Storage Levels Goulburn-Murray Water





Did You Know?

As the season wraps up, growers and processors will be reviewing planting requirements for next season and assessing cultivar suitability for farm history and end use. For a quick refresher on disease codes, check out this helpful guide from Bayer Vegetables Australia.

Disease Resistance Abbreviation Guide—Bayer Vegetables Australia

Definitions—(As outlined by the International Seed Federation)

Susceptibility is the inability of a plant variety to restrict the growth and development of a specified pest.

Resistance is the ability of a plant variety to restrict the growth and development of a specified pest and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest pressure.

Resistant varieties may exhibit some disease symptoms or damage under heavy pest pressure. Two levels of resistance are defined.

High resistance (HR): plant varieties that highly restrict the growth and development of the specified pest under normal pest pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest pressure.

Intermediate resistance (IR): plant varieties that restrict the growth and development of the specified pest but may exhibit a greater range of symptoms or damage compared to high resistant varieties. Intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest pressure.

Resistance Coding is based on Pathogen Codes of the International Seed Federation.

The order of the resistance claim coding is according to alphabetical order within the pathogen groups, which thave the following order; Virus/Bacteria/Fungus/Nematodes/Insect.

Monsanto follows commonly used strain denomination and ISF guidelines. As there is still some difference of strain nomenclature, the commonly used strain nomenclature of the region is used.

For example:

- Fusarium: **Fol:0,1,2 (EU) = Fol:1,2,3 (US)** is same as **Fol:0-2 (EU) = Fol:1-3 (US)**
- Verticillium: Va:0/Vd:0 (EU) = Va:1/Vd:1 (US)

For more information visit the Bayer Vegetables site and select ‘dropdown’ option “Tomato”.

Industry Notices

The APTRC has been successful in applying for a **Minor Use Permit for REFLEX HERBICIDE**, Containing: 240 g/L FOMESAFEN as the only active constituent, for:

CONTROL/SUPPRESSION OF VARIOUS BROADLEAF WEEDS IN PROCESSING TOMATOES.

PERMIT NUMBER – PER95209

To view or download the full permit, click on the image.


Australian Government
Australian Pesticides and Veterinary Medicines Authority

PERMIT TO ALLOW MINOR USE OF A REGISTERED AGVET CHEMICAL PRODUCT FOR CONTROL/SUPPRESSION OF VARIOUS BROADLEAF WEEDS IN PROCESSING TOMATOES

PERMIT NUMBER – PER95209

This permit is issued to the Permit Holder in response to an application granted by the APVMA under section 112 of the Agvet Codes of the jurisdictions set out below. This permit allows a person, as stipulated below, to use the product in the manner specified in this permit in the designated jurisdictions. This permit also allows the Permit Holder and any person stipulated below to claim that the product can be used in the manner specified in this permit.

THIS PERMIT IS IN FORCE FROM 11 FEBRUARY 2025 TO 29 FEBRUARY 2028

(As always, check with your processor and agronomist prior to any new chemical control inputs to make sure it's an allowable input for your produce and appropriate for your situation).

Program launched to unlock grower solutions for Australia's biggest horticulture challenges

Hort Innovation Frontiers, in partnership with Startupbootcamp and Cluster Connect, has launched a new program designed to drive innovation that will tackle the most pressing challenges in horticulture. The Australian-Grown Innovation program, which is for Australian growers and those across the horticulture supply chain, will accelerate grower-led innovation through three stages of mentorship. The aim is to turn great ideas into commercially viable products and services that make a real difference on the ground. If you have an idea that could change the state of processing tomato farming but aren't sure how to make it a reality, this might be the program for you. Find out more about what's involved and how to sign up here: www.frontiers.au/agi

The 2023/24 Australian Horticulture Statistics Handbook is here!

The 2023/24 Australian Horticulture Statistics Handbook is out! Currently in its 11th edition, the Handbook's data speaks to the strength and resilience of Australia's horticulture industry. It provides a comprehensive insight into 75 horticultural products including fruit, nuts, vegetables, nursery, turf, and cut flowers. Visit the Hort Innovation website to access the full report.

Tomato brown rugose fruit virus (ToBRFV)

Update as of 24 March 2025

Current situation

South Australia's Department of Primary Industries and Regions (PIRSA) and Agriculture Victoria are responding to detections of tomato brown rugose fruit virus (ToBRFV).

The virus has been confirmed on 3 properties in South Australia and one property in Victoria.

Two properties in South Australia were confirmed on 14 August 2024 and the third on 30 August 2024 following the tracing of plant materials.

The virus was detected on the Victorian property on 14 January 2025. The detection in Victoria is linked to a specific movement of plant material as part of a national trial and there is no evidence that ToBRFV is present elsewhere in Victoria.

All properties where ToBRFV has been detected remain under biosecurity control to stop the virus spreading.

Response strategy and actions

The Consultative Committee for Emergency Plant Pests (Committee) has been meeting regularly since ToBRFV was first detected in August 2024. Based on current information, including the limited distribution of virus, the Committee considers that it is technically feasible to eradicate ToBRFV from Australia.

In November 2024, a National Response Plan to eradicate the virus under the Emergency Plant Pest Response Deed was endorsed by the National Management Group.

The National Response Plan outlines a process for eradicating ToBRFV within affected premises. It aims to balance the need to prevent further spread with facilitating a safe and measured return to trade for affected tomato, capsicum and chilli growers.

Infected properties must undergo a series of activities before trade can resume. This includes rapid destruction and disposal of affected plant material, followed by decontamination and the implementation of a fallow period prior to replanting and an intensive sampling program of hosts. Successful implementation of these activities is required to demonstrate that the virus has been eliminated.

The eradication timeline allows infected properties to complete the disposal and decontamination process, implement a 2-week fallow period and then return sites to production under an intensive sampling program. Full eradication cannot be confirmed until a 12-month proof of freedom phase is completed. The South Australian businesses are well underway with decontamination and return to planting program.

South Australia and Victoria will continue to work closely with the infected properties throughout this process, including through dedicated case managers for infected premises and free support services for all growers.

Detection background and reporting

The source of the outbreak has not been identified however, seed tracing and testing by the Commonwealth and state and territories has led to positive test results for ToBRFV in 4 seed lines from Türkiye and one seed line from Israel. These seed lines were imported in consignments which had offshore testing certification stating negative results for this virus.

o A seed line imported from Israel in July 2023 and December 2023 was among ToBRFV-positive varieties detected from leaf tissue sampling in South Australia. Seed was traced to NSW and seed testing reported a positive result. This positive result relates only to seed, with no plants grown from this seed being confirmed ToBRFV-positive in NSW. DAFF is actively investigating this seed line with both Israel and the offshore laboratory to determine if further measures are required.

Four seed lines were imported into Australia from Türkiye in a single consignment in late May 2024. Two of these seed lines have been traced forward to two of the infected properties and current information indicates they were first planted in July 2024. DAFF has taken a precautionary approach and suspended the acceptance of seed testing certification issued by any Türkiye laboratory.

For further information on international trade and exports, visit www.agriculture.gov.au.

Response arrangements

For this incident, affected industries that are signatories to the Emergency Plant Pest Response Deed include: Australian Processing Tomato Research Council, AUSVEG, Greenlife Industry Australia.

The National Management Group (NMG) consists of Chief Executive Officers from government agencies responsible for agriculture and affected industry organisations. It is chaired by the DAFF Secretary. Plant Health Australia is a non-voting member.

NMG makes decisions on whether to support national eradication programs for pest or disease outbreaks under the Emergency Plant Pest Response Deed. NMG considers recommendations provided by the consultative committee before making decisions on whether a pest or disease is technically feasible to eradicate and cost beneficial to do so.

The Emergency Plant Pest Response Deed is a formal legally binding agreement between Plant Health Australia, the Australian, state and territory governments, and national plant industry bodies representing specific cropping sectors. The Emergency Plant Pest Response Deed covers the management and funding of nationally agreed responses to emergency plant pests.

Following from Tomato News

Global Production Forecast

The WPTC global world production estimate for 2025 stands at **40.5 million tonnes**, 11.5% lower than 2024 final production of 45.8 million tonnes. On average over the last ten years, the final production volume was 1.8% lower than the WPTC February estimate, with production higher than the early forecast only once over the period.

The TOP 50 tomato processing companies in 2024

24/03/2025 - Sophie Colvine - 2024 Season

According to data we have collected by contacting processing companies and experts in different countries, the fifty largest tomato processing companies, for which we have direct information or estimates, processed 30 million metric tonnes of tomato in 2024, which is two-thirds the total volume processed globally.

The MORNING STAR COMPANY maintains the N°1 position with just over 4 million tonnes processed in its 3 factories in California, nearly twice the production of the N°2 COFCO in its 12 factories in China. The next three positions are held by the only 3 companies in the TOP50 managing factories on different continents: KAGOME, SUGAL and CONESA. These five companies, with the addition of XINJIANG CHALKIS in China, each process more than 1 million tonnes per year and together processed 11.9 million tonnes in 2024, more than a quarter of the total volume of 45.8 million tonnes.

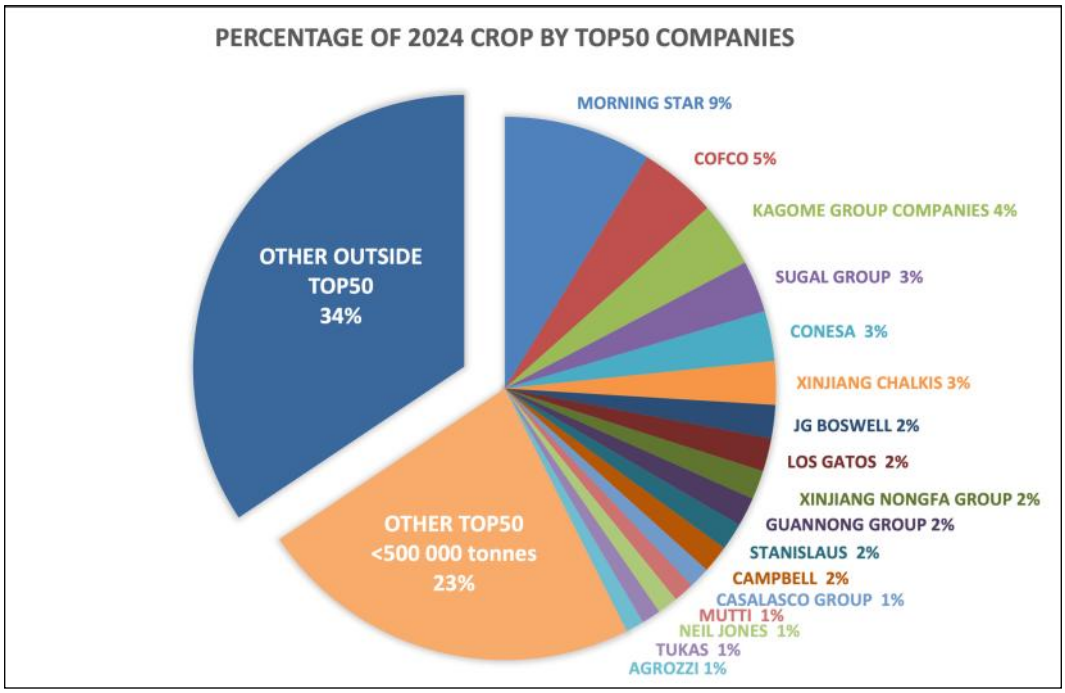
The TOP50 tomato processing companies ranked per volume processed in 2024 (in metric tonnes)

	RANK (BY 2024 PRODUCTION)	COMPANY	COUNTRY	NUMBER OF FACTORIES	LOCATION OF FACTORIES	DAILY PROCESSING CAPACITY	YEARLY PROCESSING CAPACITY	2024 VOLUME	2023 VOLUME	2022 VOLUME
Over 1 million tonnes	1	MORNING STAR	USA	3	CALIFORNIA	70 600	5 300 000	4 040 000	4 820 000	3 460 000
	2	COFCO	CHINA	12	CHINA	40 000	2 120 000	2 120 000	2 060 000	1 780 000
	3	KAGOME GROUP COMPANIES	JAPAN	6	CALIFORNIA, PORTUGAL, AUSTRALIA, JAPAN	29 500	2 300 000	1 783 370	1 960 537	1 771 543
	4	SUGAL GROUP	PORTUGAL	5	PORTUGAL, SPAIN, CHILE	31 650	2 700 000	1 412 000	1 669 000	1 364 000
	5	CONESA	SPAIN	9	SPAIN, PORTUGAL CHINA, CALIFORNIA	30 800	1 500 000	1 360 800	1 107 354	910 766
	6	XINJIANG CHALKIS	CHINA	7	CHINA	28 000	1 520 000	1 190 000	800 000	602 000
500 000 to 1 million tonnes	7	JG BOSWELL (*)	USA	2	CALIFORNIA	15 000	1 200 000	910 000	1 050 000	1 010 000
	8	LOS GATOS	USA	1	CALIFORNIA	10 900	1 100 000	903 913	995 723	855 156
	9	XINJIANG NONGFA GROUP	CHINA	5	CHINA	15 000	800 000	792 000	714 000	479 000
	10	GUANNONG GROUP	CHINA	5	CHINA	17 600	900 000	785 163	613 166	540 675
	11	STANISLAUS	USA	1	CALIFORNIA	11 000	800 000	750 000	775 000	725 000
	11	CAMPBELL (*)	USA	2	CALIFORNIA	10 800	980 000	750 000	810 000	780 000
	13	CASALASCO GROUP	ITALY	5	ITALY NORTH	17 400	1 044 000	580 000	825 000	820 000
	14	MUTTI	ITALY	3	ITALY NORTH, ITALY SOUTH	9 458	660 000	565 000	525 000	603 000
	15	NEIL JONES (*)	USA	2	CALIFORNIA	10 600	950 000	560 000	630 000	580 000
	16	TUKAS (*)	TURKEY	3	TURKEY	11 000	550 000	520 000	480 000	470 000
	17	AGROZZI	CHILE	1	CHILE	8 000	500 000	500 000	368 500	357 000
300 000 to 500 000 tonnes	18	CONAGRA (*)	USA	2	CALIFORNIA, ONTARIO	6 400	565 000	490 000	566 000	661 000
	19	AGROFUSION	UKRAINE	2	UKRAINE	9 000	590 000	459 000	388 000	32 000
	20	INNER MONGOLIA FUYONG	CHINA	3	CHINA	11 200	616 000	440 000	420 000	187 000
	21	CONSERVE ITALIA	ITALY	7	ITALY, FRANCE	12 000	700 000	435 000	422 000	416 000
	22	PCP (*)	USA	1	CALIFORNIA	7 900	660 000	430 000	480 000	360 000
	23	TAT KONSERVE (*)	TURKEY	3	TURKEY	11 600	560 000	420 000	450 000	542 000
	24	XINJIANG RISING SUN TOMATO	CHINA	3	CHINA	8 000	425 000	400 000	330 000	n/a
	24	RED GOLD (*)	USA	3	INDIANA	n/a	n/a	400 000	400 000	400 000
	26	TOMATES DEL GUADIANA	SPAIN	1	SPAIN	8 000	400 000	390 000	330 000	218 490
	27	CARGILL ALIMENTOS	BRAZIL	1	BRAZIL	4 000	380 000	380 000	379 000	373 000
	28	KRAFT HEINZ BRASIL	BRAZIL	2	BRAZIL	3 000	380 000	370 000	257 000	331 000
	28	STERILTOM	ITALY	2	ITALY NORTH	7 000	460 000	370 000	400 000	390 000
	30	PREDILECTA	BRAZIL	6	BRAZIL	5 500	400 000	340 000	340 000	355 000
	31	XINJIANG WEISHENG TIANTONG TOMATO	CHINA	3	CHINA	6 000	365 000	330 000	260 000	n/a
	31	PATAGONIAFRESH	CHILE	2	CHILE, PERU	4 000	320 000	330 000	258 000	220 000
	32	SICAM	TUNISIA	2	TUNISIA	9 000	500 000	326 000	241 000	289 000
	34	TACHENG HONGXIANG	CHINA	2	CHINA	8 500	350 000	310 000	230 000	161 000
	34	P&J FOR JUICE AND PASTE	EGYPT	3	EGYPT	2 000	660 000	310 000	290 000	280 000
	36	TIANCHENG TOMATO PRODUCTS	CHINA	2	CHINA	5 500	400 000	300 000	270 000	n/a
under 300 000 tonnes	37	PRONAT	SPAIN	1	SPAIN	5 800	348 000	291 163	223 009	203 123
	38	LA DORIA	ITALY	4	ITALY NORTH, ITALY SOUTH	7 700	370 000	286 500	249 500	239 000
	39	SULTAN (*)	TURKEY	4	TURKEY	8 200	370 000	250 000	350 000	350 000
	39	DEL MONTE (*)	USA	1	CALIFORNIA	6 200	570 000	250 000	280 000	240 000
	41	XINJIANG XINQIE FOOD	CHINA	1	CHINA	12 000	636 000	245 000	n/a	n/a
	42	TRANSA (*)	SPAIN	2	SPAIN, PORTUGAL	10 500	420 000	230 000	n/a	300 000
	42	RODOLFI MANSUETO	ITALY	3	ITALY NORTH	6 300	300 000	230 000	265 000	280 000
	42	ESCALON (*)	USA	1	CALIFORNIA	3 600	348 000	230 000	260 000	250 000
	45	TOMALIA	SPAIN	1	SPAIN	4 500	200 000	226 000	154 000	106 000
	45	SOCODAL	TUNISIA	1	TUNISIA	2 100	230 000	226 000	205 000	113 646
	47	NOMIKOS	GREECE	3	GREECE	6 100	300 000	225 000	145 000	130 000
	47	BURCU (*)	TURKEY	4	TURKEY	3 500	160 000	225 000	220 000	180 000
	49	ALSAT	SPAIN	1	SPAIN	4 700	230 000	213 000	191 000	122 000
	50	SUN-BRITE FOODS	CANADA	2	ONTARIO	5 000	275 000	210 000	220 000	210 000
	TOTAL			151		582 108	38 412 000	30 089 909	29 676 789	25 047 399

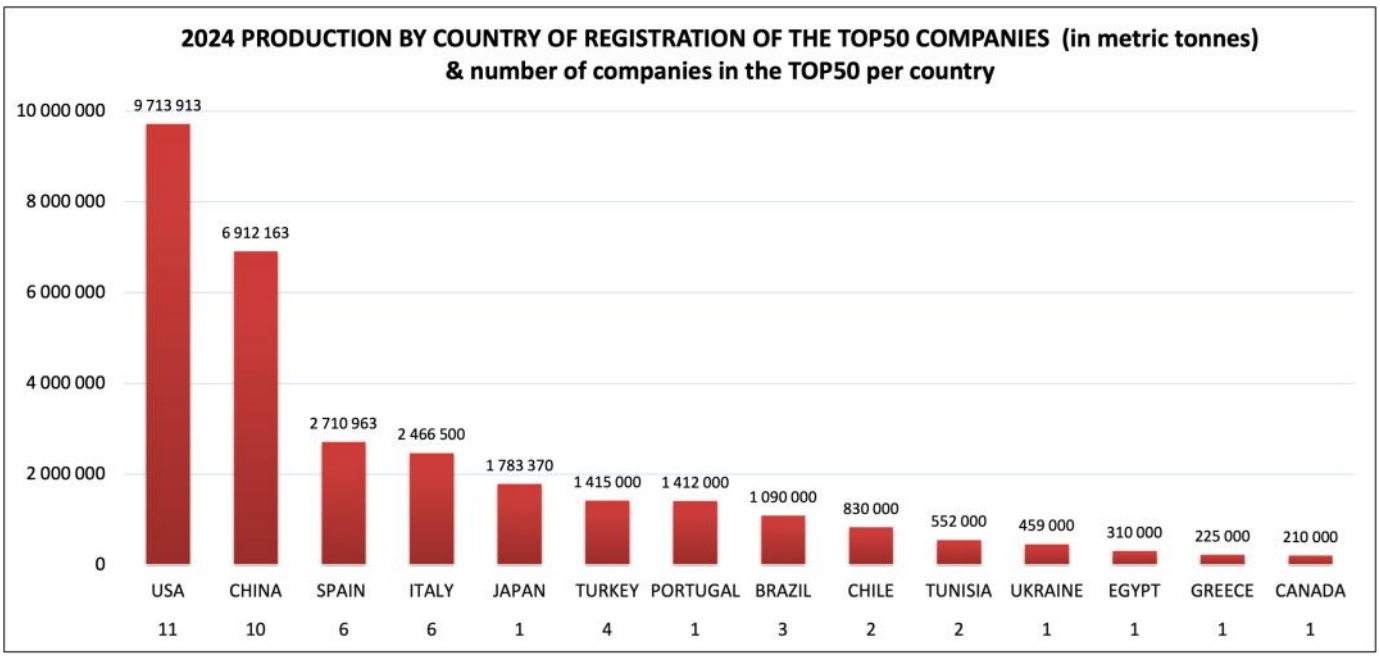
(*) Estimate as no information provided by the company or a trusted source

The next eleven companies processed between 500 000 tonnes and 1 million tonnes each for a total of 7.6 million tonnes, with the next 19 processing between 500 000 and 300 000 tonnes (total of 7.2 million tonnes). The last company in the TOP50 processed 210 000 tonnes in 2024, validating our initial assumption that 200 000 tonnes would be the cut-off level to feature in this table.

Eleven companies are new in our table, of which 4 in China and 2 in Brazil.



If we look at the individual countries, 11 of the TOP 50 are registered in the USA (10 of which in California), with 10 in China. Most of the other companies are in Europe, with 5 in South America (Brazil & Chile), 3 in North Africa (Tunisia & Egypt), and only one in Asia (Japan, where N°2 Kagome is headquartered, although most of its volume is processed on other continents).



These fifty companies, headquartered in 14 different countries, operated 151 processing sites in 2024 in seventeen countries, with only 15 of the factories located in the Southern Hemisphere. Altogether, these have over 38 million tonnes of total processing capacity, far exceeding their annual production volume, even on a record year like 2024.

From Pomace to Bioleather

An Indian start-up, The Bio Company, won the Best Innovation in Textile at the PETA Vegan Fashion Awards for its Bioleather.

Pritesh Mistry, founder of The Bio Company (TBC), created a sustainable process to turn tomato waste into bioleather. He developed this process while still in college and has since patented the process and its technology. His inspiration came from witnessing the environmental pollution caused by the leather tanning industry, as well as the significant amount of food waste – and particularly from tomatoes – in India.

TBC uses tomato waste, primarily skins and seeds, from local processing units and farms in India. It is then combined with biopolymers, plant-based binders, and natural fibers, undergoing a process that includes blending and non-toxic curing to create a durable and leather-like material. The resulting product is a vegan, carbon-neutral, and biodegradable alternative to traditional leather, dyed with natural materials. It is PU and PVC free, unlike conventional faux leathers.

Bioleather has already been adopted in fashion, accessories and automotive sectors.

The company currently produces around 5,000 meters per month at its facility.

PlantTape introduces new automatic transplanter

PlantTape, a leader in agricultural technology, has announced the commercial launch of an automated tomato transplanter, describing it as a cutting-edge solution set to transform the way tomatoes are transplanted, delivering increased efficiency and precision to growers around the world.

Designed with input from numerous tomato growers and industry experts, the automated tomato transplanter addresses the specific needs and challenges faced by modern farmers. This innovative module can plant plants up to 30 cm (12 inches) tall, ensuring rapid and uniform planting in the field.

According to the manufacturer, “PlantTape enables rapid transplanting: a crew of 3 (including the tractor operator) can transplant 5 to 7 acres (2 to 2.8 hectares) of tomato plants per hour. Compared to other transplanting systems that require a crew of 15, PlantTape reduces transplanting labour requirements by 80% while increasing transplanting productivity and crop yield.” With the ability to bury plants 8 inches (20 cm) deep and inject over 400 gallons (3.74 m3/hectare) of water per acre, this technology optimizes growing conditions for maximum crop health and productivity.

The automated tomato transplanter was available for commercial planting trials for the 2025 tomato season.

Machine Learning meets Tomato Farming

Israeli researchers have developed a machine learning model that uses hyperspectral imaging to assess the quality of tomatoes before harvest. It is a cost-effective and non-destructive method for predicting critical quality parameters, including weight, firmness, and lycopene content.

This innovative approach allows farmers to monitor fruit development in real time, optimize harvest timing, and improve the overall quality of harvested fruit. The results of this research represent a significant leap forward in precision agriculture and sustainable food production.

A research team led by Dr. David Helman from the Faculty of Agriculture, Food, and Environment at the Hebrew University of Jerusalem has developed a new machine learning model that uses hyperspectral imaging to assess the quality of tomatoes before harvest.

Hyperspectral images of specific wavelengths of light, called spectral bands, are used to study the properties of fruits based on how they reflect light. This innovative new approach addresses challenges posed by traditional methods and is faster, non-destructive, and more cost-effective.

The study used a handheld hyperspectral camera to collect data on 567 tomatoes from five cultivars. The researchers used machine learning algorithms, including Random Forest and Artificial Neural Networks, to predict seven critical quality parameters: weight, firmness, total soluble solids (TSS), citric acid, ascorbic acid, lycopene, and pH. The models demonstrated high accuracy, with the Random Forest algorithm achieving an R^2 of 0.94 for weight and 0.89 for firmness, among others.

The study mainly led to the following conclusions:
• Effectiveness in the choice of spectral bands: a model with five spectral bands is sufficient to effectively predict the determined quality parameters, which makes it possible to develop less expensive portable devices;

• Flexibility of implementation: the model proves to be both robust and scalable regardless of varieties and growing conditions;

• Gain in terms of harvest: precise monitoring of the state of ripening and quality of fruits allows producers to optimize the choice of harvest date and thus improve the quality of harvested products.

"*In addition to improving nutritional quality, the team's AI-based technology could also enable "better adaptation to environmental changes, strengthen the resilience of agricultural systems and contribute to global food security*," explained Dr. Helman.

"*Our research aims to bridge the gap between advanced imaging technology, AI, and practical agricultural applications*," he adds. "*This work has the potential to revolutionize quality monitoring not only in tomatoes but also in other crops. Our next step is to build a low-cost device (ToMAI-SENS) based on our model that will be used across the fruit value chain, from farms to consumers*."

The study highlights the opportunities created by integrating this technology into agricultural practices, from intelligent harvest optimization systems for professionals to tools that can be used by the general public to assess the quality of produce in supermarkets.

The research paper, "*Hyperspectral imaging-based machine learning models for monitoring tomato fruit quality before harvest*," is available in Computers and Electronics in Agriculture and can be found at:

https://doi.org/10.1016/j.compag.2024.109788

Following from AusVeg

How to help stop the spread of high-risk weeds

In the latest issue of Agriculture Victoria's Weed Spotter newsletter.

- *A good news story about the permanent eradication of a water hyacinth site*
- *An unusual species of horsetails and where you might find them*

Partnerships to support the management of alligator weed and hawkweed

READ MORE

2026 Nuffield scholarship applications now open

2026 Nuffield Scholarship applications are now open to Australian primary producers and those working in the agriculture industry to travel and study.
It's a unique opportunity to gain knowledge, form business friendships and bring new ideas home.

Applications close 16 May 2025.

Nuffield scholarships (MT22003) has been funded by Hort Innovation using industry research and development levies and contributions from the Australian Government.

READ MORE

Australians urged to 'Stop. Check. Protect.' to stay safe from scams

The 'Stop. Check. Protect.' campaign, launched by the Federal Government, seeks to tackle the threat of scams by educating the community about sophisticated scam tactics, reminding people that anyone can be vulnerable to scams, and empowering victims to report scams to Scamwatch.

READ MORE

Identifying biosecurity risks associated with wet weather events

This video overviews the biosecurity risks NSW vegetable growers need to consider when faced with wet weather events. Intense or prolonged rainfall, and runoff and overflow from drains, rivers, creeks and dams can create the potential for damage to crops through flooding, ponding and soil saturation.

Impacts on existing crops can be direct and immediate where plants and soil are submerged for periods of time or washed away by fast moving water. Other biosecurity and agronomic challenges may take longer to reveal themselves.

This video was produced by the Building Biosecurity Capacity and Resilience within the NSW Vegetable Industry project, funded under the Storm and Flood Industry Recovery program, jointly funded by the Australian and NSW governments and supported by AUSVEG.

READ MORE

Thanks to Kagome Farms, who this year helped out the APTRC by making available a dedicated Guaresi harvester. It certainly helped our new team at OptiAg harvest our APTRC cultivar Trials in a more timely manner than would have otherwise been possible. Thanks also to the volunteer drivers at all sites who helped get all of our trials harvested!

Image here of Chirnside Farms harvest in action. The image captures the essence of our beneficial season with high quality fruit, strong yields and non-stop action.

Mark Cashin of Kagome seen here at the APTRC cultivar evaluation seed representative field day, giving a hands on demonstration of Kagome's new "Red Velvet Oil"—a premium cosmetic oil crafted from upcycled tomato seeds.

This latest innovation from Kagome Australia and Native Extracts will be featured in the next Tomato Topics.

UPCOMING EVENTS

Annual APTRC Processing Tomato Forum & Dinner

When: Friday 16th May, 2025 BOOK NOW

Where: Rich River Golf Club, Tatalia Function Room 1 & 2. (24 Lane, Moama NSW)

Hort Connections

When: 4-6 June, 2025

Where: Brisbane Convention Centre

Links: **https://hortconnections.com.au/**

ACKNOWLEDGMENTS:
This project [Australian Processing Tomato Industry Development and Extension (TM20000)] is funded by Horticulture Innovation Australia Limited with co-investment from Australian Processing Tomato Research Council Inc. and funds from the Australian Government.
"Tomato Topics" is a quarterly newsletter compiled and edited by the Industry Development Manager, APTRC Inc., P.O. Box 547, ECHUCA, VIC 3564. **E-mail: aptrc.idm@outlook.com**
Opinions expressed in "Tomato Topics" are not necessarily those of the APTRC unless otherwise stated.