

World Potato Congress: Lessons from Down Under

By Dirk Uys and Willie Jacobs, Potatoes SA

South African potato production compares very well with that of leading potato-producing countries in the world. Using yield as a benchmark, the national South African average was 48.5t/ha in 2023 which compares well with Australia, New Zealand, and the United States.

In June this year, during the World Potato Congress held in Adelaide, Australia, a delegation of South African producers and agronomists joined Potatoes SA on a grower tour across key potato production regions in Victoria, and Western and Southern Australia.

The Australian potato industry

The Australian potato industry is co-ordinated by AUSVEG, which supports Australian vegetable producers, including potato growers. Their mandate is to support research and development, advocacy, consumer awareness, and market information.

Research, being a focus area in Australia, is funded through a levy system managed by AUSVEG and administered by Hort Innovation. This levy, set at AU\$0.60/t (R7.2/t), generates AU\$1.5 million (R18 million). The federal government matches this investment to enable innovation within the potato industry.

The International Potato Partnership programme was initiated during

the World Potato Congress in a bid to address pressure on research resources. This initiative involves collaboration between South Africa and countries such as Australia, New Zealand, the Netherlands, the United Kingdom, and Germany, the aim being to share research priorities. Common challenges include soil health, potato tuber moth, powdery scab, and bacterial and virus diseases. This affords the opportunity to share resources and expertise.

A major challenge for Australian growers is labour cost. Backpackers are recruited as seasonal labour mainly from European countries such as France, Germany, and Ireland to assist with tasks such as potato sorting.

Soil health

Australia benefits from vast areas containing 'virgin' soils. Despite this advantage, the primary soilborne challenge is powdery scab (*Spongospora subterranea* f. sp. *subterranea*). Interestingly, nematode damage is limited to potato cyst nematodes that are rigorously monitored by their certification scheme.

Unlike South Africa, nematicides are not widely used in Australia. This can be attributed to their rotation systems, which typically include *Brassica* crops followed by green manure crops. Rotating with maize

and soya, known nematode hosts, is uncommon.

The secret to healthy soils lies in the accumulation of organic material due to the continuous presence of living roots, which maintain soil biology. *Brassica* crops are also known to reduce *Verticillium* early dying complex.

A strong livestock element is included in grazed pastures, promoting root development. Animals are integrated for at least two seasons before potato planting commences, resulting in improved soils and increased root biomass. Ideally, the soil should remain covered as living roots will maintain its biological population. Spring cereals or *Brassica* crops are planted ahead of potatoes, with winter cereals cultivated after the potato cycle. It is important to emphasise that improving soil health takes time.

Insect control

As in South Africa, potato tuber moth is a concern in Australia, with notable damage having occurred in recent years. Successful crop protection strategies have been achieved by integrating beneficial insects and avoiding broad-spectrum crop protection products that may harm these beneficials. This strategy requires tremendous courage but has proven effective. At least five species have been identified as predators of the potato tuber moth in areas with softer insecticidal programmes.

Additional control strategies include planting border crops to support beneficial habitats. Typical Australian programmes still rely on the diamide insecticide group, which specifically targets tuber moths and has a minimal impact on beneficial insects. Softer and targeted alternatives, including biologicals,

Table 1: South African potato production compared to Australian production.

	Australia	South Africa
Total production	1.4 million tonnes	2.4 million tonnes
Potato production area (ha)	26 381 ha	49 841 ha
Producers	490	495
Per capita consumption (kg)	54	35
Average yield (t/ha)	53 tonnes	48 tonnes
Average farm size (ha)	54	100
Varieties	>400	141



The South African delegation at Durkin Produce in Thorpdale, Victoria in Australia.

offer alternative modes of action to prevent insecticidal resistance. This is supported by cropping systems that minimise soil cracks through irrigation and ridging, along with the timely lifting of potatoes to minimise tuber infection in soils after haulm decay.

Another closely managed concern is zebra chip, transmitted by leafhoppers, which is also well controlled by predators.

Global consumer trends

During the congress, attention was given to marketing and consumer trends, with some worrying but also exciting trends emerging.

Fresh potato consumption has stagnated globally and is declining in regions such as Europe, particularly among younger consumers. Conversely, the processing segment, especially in respect of crisps, is increasing globally. Various new trends in the processing segment include new categories in prepared meals, such as basic recipes including prepared mashed potatoes.

There is a global drive to promote the potato as a good carbohydrate which is critical for health and performance



Australian baby potatoes positioned as microwave potatoes.

due to their good nutrients and fibre content. Global trends include:

- Increased use of air fryers for preparation.
- Consumers wanting to understand the purpose of their potatoes.
- Increased processing, particularly in the snacking segment.
- Greater trust in producers that can be leveraged to promote potatoes.
- Decreasing potato consumption among the younger generation (Gen Z).
- A decrease in the use of unwashed potatoes in Australia due to the demand for convenience.

The Australian market

In contrast to South Africa, where 20% of potatoes are processed, approximately 65% of Australian potatoes are processed, 32% consumed fresh and 3% exported. This is attributed to higher spending power and convenience, hence the shift to processing. Consequently, the Australian potato industry is showing a growing trend in respect of processing varieties.

In the fresh potato category, consumers are spoiled for choice with value propositions such as microwaveable baby potatoes and low-carb options.

Unlike South Africa, where fresh produce markets (FPMs) play an important role in price determination, Australian prices are negotiated annually based on supply agreements between retailers and producers. Some retailers also put their requirements out for tender.

While unwashed potatoes were once common in Australian produce markets, this trend is declining as consumers now prefer washed

potatoes, which also carry a premium at the retail level.

Value propositions are widely promoted, such as:

- One or two potatoes = one vegetable serving.
- Lower in carbs (Spud Lite).
- Microwaveable.


This is often supported in diets when potatoes are prepared with their skin on and there is a preference for baby potatoes.

The congress delivered some interesting take-home messages:

Agronomic innovation

- The integration of biological crop protection products and crop enhancers in future crop protection programmes is here to stay.
- Soil health is crucial for reducing nematodes and diseases, and has the potential to shorten rotation cycles.
- Tuber moth control strategies should integrate beneficial insects rather than broad-spectrum insecticides.
- Crop protection programmes should be designed based on disease risk, avoiding 'just in case' spray applications.

Marketing

- An opportunity exists to differentiate potatoes based on consumer benefits rather than cultivars.
- Processing is increasing specifically in the snacking segment.
- A global trend is emerging to position potatoes as a healthy food that fuels performance, a good source of carbohydrates and fibre, and that pose a low allergen risk.
- Our FPM system remains an effective price-forming mechanism that also supports smaller producers. 

For more information, contact Dirk Uys at dirk@potatoes.co.za.

Mondstuk van die Suid-Afrikaanse aartappelbedryf • Mouthpiece of the South African potato industry

CHIPS

VOL 38 NO 5 • SEPTEMBER / OCTOBER 2024

**SUCCESSFUL 2024 CONGRESS
PAVES THE WAY FOR 2025**

**COMPETITION COMMISSION ON
FRESH PRODUCE MARKETS**

**Potato waste:
Quantity, value, causes**

**Physiological disorders
in potato tubers**

**Potato cultivation
and climate change**