Potato NEWS

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Owners of illegal potato chip factory nabbed

The Johannesburg metro police recently collected evidence from the scene of an illegal potato chip factory. Officers found steel containers where the vegetables were being cut, fried, and packaged at a property in Marlboro.

"Environmental health inspectors were summoned to the scene, and it was discovered that the owner did not have a manufacturing certificate and the relevant documents for operating the business." Metro police spokesperson, Xolani Fihla, says they made the discovery after officers searched a vehicle and found packets of chips without the necessary South African Bureau of Standards approval mark. Seven illegal immigrants were also arrested.

The raid came days after consumer inflation data revealed that the price of potatoes went up 64% over the past year.
– *East Coast Radio*

France's potato prices surge

France is grappling with a severe farming crisis, as national inflation has dramatically increased potato prices, affecting various potato-based products. The National Institute of Statistics and Economic Studies reported an almost 23% rise in potato prices within a year.

By September 2023, a kilogram of potatoes cost €2.09, a significant increase from the previous year. This surge is attributed to the "worst harvest in 30 years" with producers citing poor crop yields. Factors such as the Ukraine war impacting fertiliser availability and rising energy costs, coupled with damaging heatwaves, have severely affected potato growth.

The crisis has disrupted the French supply chain, leading to a 50% hike in prices for potato processors buying potatoes from growers. Contracts between growers and manufacturers have become 36% more expensive, with no immediate relief in sight. The ongoing climate change poses additional threats, such as flooding and continued droughts, further jeopardising future crops. – *Express*

AI transforms Canadian potato farming

In a groundbreaking development for the agricultural sector, Canadian potato growers are now turning to artificial intelligence (AI) to monitor and predict the nutritional needs of their crops in real time. This innovative approach is set to transform the way potatoes are cultivated in Canada.

Researchers from Dalhousie University, including PhD candidate Reem Abukmeil and associate professor Ahmad Al-Mallahi, are at the forefront of this agricultural revolution. Their research involves the use of a portable spectrophotometer, an optical sensor, to rapidly determine petiole nutrient values in potato fields.

Technological advances in optical sensors and their wavelength ranges has led to wide-ranging applications of spectroscopy to evaluate the nutritional composition of plants using machine learning techniques. This technology, combined with machine learning algorithms trained on historical data, allows for near real-time assessment of the plant's nutritional needs.

This AI-driven approach offers numerous advantages. It enables producers to apply fertilisers more efficiently and timely, ensuring that the plants receive the right nutrients at the right time. This not only optimises crop quality and yields but also helps in balancing production goals with environmental protection.
– *The Conversation*

Genetically edited potato to prevent browning

Scientists from the National Institute of Agricultural Technology of Argentina, the public entity in charge of carrying out and centralising agricultural research in the country, are close to releasing the first genetically edited potato in Latin America, according to a report by Agro-Bio.

The development aimed to turn off the gene that causes the potato to darken after being cut, peeled or from being hit during the harvesting and transportation process. This trait, known as enzymatic browning, occurs due to the oxidation of the potato and alters the flavour, texture and colour, thus affecting its nutritional properties and the quality of the product.

Through the revolutionary CRISPR-Cas9 genetic editing technique, within the framework of Dr Matías González's doctoral thesis developed in the Agrobiotechnology Laboratory of the Balcarce Agricultural Experimental Station co-directed by Dr Sergio Feingold and Dr Gabriela Massa, managed to turn off the gene that encodes the expression of polyphenol oxidase enzymes, responsible for browning. – *Agro-Bio*

Aartappel NUUS

Potato prices a driver of food price inflation

Food inflation has been topical over the past few months and South Africa saw double-digit levels from mid-2022 to mid-2023. This was not unique to South Africa but a global phenomenon underpinned by various factors, including drought in South America, China's strong demand for grains and oilseed, higher energy prices, and the Russia-Ukraine war.

October 2023 disrupted the six-month consecutive decline, with consumer food inflation having quickened to 8.8% from 8% the previous month. The product prices underpinning this increase were mainly milk, eggs, cheese, fruit and vegetables.

Regarding vegetables, potatoes were mainly the driver of the prices in the basket as the harvest was limited following quality challenges caused by irrigation disruptions in some fields due to load shedding during the first half of the year. – *Wandile Sihlobo, Agbiz*

GM potato variety free from late blight

In a groundbreaking development, scientists in Kenya have engineered a new genetically modified (GM) potato variety that is resistant to the devastating late blight disease. The Global Biotech Potato Partnership project, spearheaded by Dr Eric Magembe, has shown promising results in confined field trials across Uganda, Kenya and Nigeria.

The trials, which began in May last year following approval from the National Biosafety Authority, were conducted at three Kenya Agricultural Livestock Research Organisation (KALRO) sites. This initiative is a collaborative effort involving Michigan State University, KALRO, the Africa Agricultural Technology Foundation, and the International Potato Centre, among others.

The new GM potato variety boasts a tolerance to late blight, caused by *Phytophthora infestans*, potentially eliminating the need for harmful chemical applications. The innovation promises to significantly boost yields from the current 10t/ha to over 40t/ha, without the need for chemical sprays.
– *Nation Media Group*

European Commission to extend glyphosate use

The European Commission will continue the use of the controversial chemical herbicide glyphosate in the European Union (EU) for ten more years, after its 27 member countries again failed to find a common position for or against a prolongation.

The chemical, which is widely used in the bloc to the great anger of environmental groups, had been approved in the EU market until mid-December. The Greens political group of the EU Parliament immediately urged the Commission to backpedal and ban the use of glyphosate.

Greenpeace had called on the EU to reject the market re-approval, citing studies indicating that glyphosate may cause cancer and other health problems and could also be toxic to bees. The agroindustry sector, however, says there are no viable alternatives. – *Associated Press*

The battle against acrylamide intensifies

A research team based in Italy monitored the acrylamide (AA) levels in 15 674 samples from 12 processed food commodities in a scientific study. Potato-based products and coffee were found to be the main sources of AA exposure. The data was then compared to the information previously published by the European Food Safety Authority (EFSA) to assess the trend over time and the effectiveness of the mitigation measures.

This study presents an accredited method for the assessment of AA in various foods, highlighting its consistency with established standards. The study found that the presence of AA in various foods poses significant health risks. This emphasises the critical need to monitor AA levels for consumer safety and to evaluate the effectiveness of new food preparation methods to minimise contamination. Recent research supports the 2015 findings of the EFSA, which showed reduced levels of contamination in most food categories. However, it is important to note that processed potatoes and coffee had higher contamination levels.

The overall reduction in contamination levels is promising. This reduction is particularly noteworthy as the sampled products adhered to a strict self-monitoring plan. This compliance ensured that products exceeding the benchmarks set by the EU did not enter the market. In particular, baby food showed a remarkable improvement, with a fivefold reduction in contamination levels compared to the levels reported by EFSA.

This significant reduction underscores the effectiveness of European regulations and the proactive measures taken by food manufacturers to reduce AA levels. It also highlights the critical need for continued monitoring and strict enforcement to protect public health. – *Potato News Today*

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

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VOL 38 NO 1 • JANUARY / FEBRUARY 2024

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'n Kykie na die *pepper ringspot*-situasie

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