

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

CHIPS

VOL 35 NO 04 • JULY / AUGUST 2021

**COVER CROPS AND NEMATODE
MANAGEMENT: TOLERANCE TO
MELOIDOGYNE ENTEROLOBII**

Pesticide maximum residue
limits and market access

**WES-VRYSTAATSE KULTIVARPROEF
ONDER BESPROEING
OP BULTFONTEIN**

Tendense op
varsproduktemarkte

PSA small grower development
programme in Limpopo



The critical role of pesticide maximum residue limits in market access and consumer confidence in potato producers

Principal author: Dr Gerhard Verdoorn • Contributors: Roleen la Grange, Dr Fienie Niederwieser and Desirée van Heerden

Pesticide residues are unavoidable in all crops when these essential agricultural inputs are used to control potato pests, potato diseases and weeds encountered in potato production. It is seldom possible to produce a crop without a residue of the applied pesticide, unless special measures are implemented to manage the residues down to below-detectable limits.

A maximum residue limit (MRL) is set for all pesticides (including plant and insect growth regulants) that are registered in South Africa – and potatoes are no exception. MRLs are published in a regulation by the Department of Health in terms of the *Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)*. Potato producers are therefore legally required to only sell produce that meets the published MRLs of all pesticides used on crops.

If potato producers follow label instructions for dosages, application timings, repeated applications, application intervals, and pre-harvest intervals, pesticide residues should be below or equal to the published MRLs at the time of harvest. CropLife South Africa's Agri-Intel is the perfect tool for potato producers

to ascertain whether pesticides are registered for use on potatoes. It also offers a comprehensive data set on MRLs for local consumption and export markets.

Market requirements

Markets (buyers), processors such as chip manufacturers, retailers and consumers are meticulous about food safety, with a strong focus on pesticides that are used on foodstuffs.

Problems that may arise with potato buyers, processors and consumers are as follows:

- If pesticides that are not registered for use on potatoes are applied, buyers, processors and retailers may reject such stock, which will be returned to producers or destroyed at their expense.
- Even if residues of such unregistered pesticides are below detectable limits, they will be within their rights to reject such potatoes.
- If pesticides registered for use on potatoes are not applied strictly according to label instructions – for example exceeding dosage rates, applying more frequently than advised,

applying too late in the season (within the pre-harvest interval or during the pre-harvest interval), or any other deviation from label instructions – residues may very well exceed the published MRLs. Buyers, processors, and retailers analyse potatoes for pesticide residues and if the MRLs have been exceeded, they may reject these batches.

Unexpected residue exceedance

It is possible, though unlikely, that the MRL of a certain active ingredient may be exceeded even if producers follow label instructions strictly. In such cases, the potato producer must inform the registration holders of such pesticides immediately for investigation and further action on their part.

An example of such an incident occurred in 2015, when cyromazine residues on potatoes exceeded the South African MRLs. CropLife South Africa members, as well as the registration holders and Potatoes South Africa (PSA), collaborated to elevate the MRLs thereby solving the problem.

Market demands vs taking risks

Potato producers should only use pesticides that are registered for

potatoes in South Africa and ensure that MRLs are not exceeded.

Potato producers should also take note that the label is the only legal 'advisor' of a pesticide; neither consultants nor crop advisors may advise the use of a pesticide for any other purpose or in any other manner than instructed on the label. If a potato producer uses a pesticide off-label, any negative consequence of such off-label use is for the account of the producer, even if the producer acted upon the advice of a third party.

The consequences of off-label pesticide usage may be far-reaching and can affect all potato producers in the country. Many producers export potatoes to other countries and a decision by such countries to prohibit import of South African potatoes because of misconduct with pesticides, will affect all South African potato producers.

Trade barriers

The trade in agricultural fresh produce is highly competitive.

Certification agencies, buyers and export destinations use the slightest reason in an attempt to terminate trade agreements with countries like South Africa. It is also evident in the retail market that certain retailers mark their foodstuffs as chemical-free, among others.

Should unacceptable pesticide residues be found in potatoes, trade may very well become a challenging issue for potato producers. The slightest hint of 'unsafe' potatoes, whether true or not, may also cause unfounded consumer resistance against potatoes and potato-derived products. This is something that producers can ill afford.

Sustainability of local producers

Potato producers have a responsibility towards themselves and their fellow producers to protect their commercial interest by only using pesticides that are registered for use on potatoes and by following label instructions meticulously to

prevent unacceptable pesticide residues in potatoes. 🍅

This article is Monograph 2 of the Potato Production Stewardship Programme – A Collaborative Initiative of Potatoes South Africa, CropLife South Africa, and the Insecticide Resistance Action Committee. For more information, contact Dr Gerhard Verdoorn. Growers can subscribe to CropLife Agri-Intel by visiting www.agri-intel.com.



geïntegreerde gewasoplossings
deur

info@inteligro.co.za | www.inteligro.co.za

