EXCALIA®

FUNGICIDE

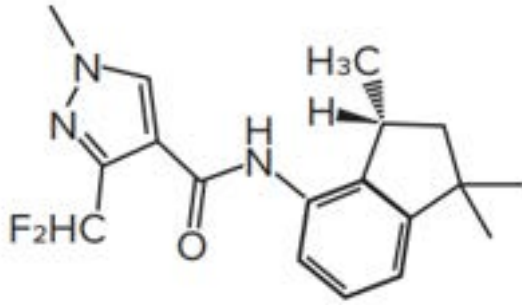
THE NEW STANDARD FOR DISEASE CONTROL IN POTATOES

Technical Guide Potatoes

EXCALIA™
FUNGICIDE

Excalia is a new fungicide from Sumitomo that provides the highest level of protection against Rhizoctonia solani.

- Highly effective control on all strains of Rhizoctonia solani.
- Mode of Action: SDHI (group 7)
- ISO Chemical Name: Inpyrfluxam
- Active Ingredient Name: INDIFLIN®
- 400 SC (suspension concentrate) formulation for excellent compatibility and usability.



Mode of Action

Excalia is a novel fungicide discovered by Sumitomo and belongs to a class of compounds known as succinate dehydrogenase inhibitors (SDHI) that have a mode of action inhibiting the energy production process in pathogenic fungi. New generation SDHIs that are highly active on pathogenic fungi possess pyrazole rings. Sumitomo Chemical was the first company to discover these pyrazole rings in the 1980's. Through later optimisation the active Indiflin (Inpyrfluxam) was synthesised to create one of the most active compounds in this group.

Rhizoctonia in Potatoes

Rhizoctonia solani is a fungus that attacks potatoes and many other crops it is rotated with. It attacks the tubers, underground stems and stolons of potato plants.

The disease is most visible as black scurf, which are black or brown masses of sclerotia on the surface of tubers.

The most damaging phase of the disease however often goes unnoticed and occurs underground. From where it attacks the tender sprouts before they emerge from the soil. Symptoms of such attack appear in the form of lesions (also referred to as stem canker).

Rhizoctonia stem cankers

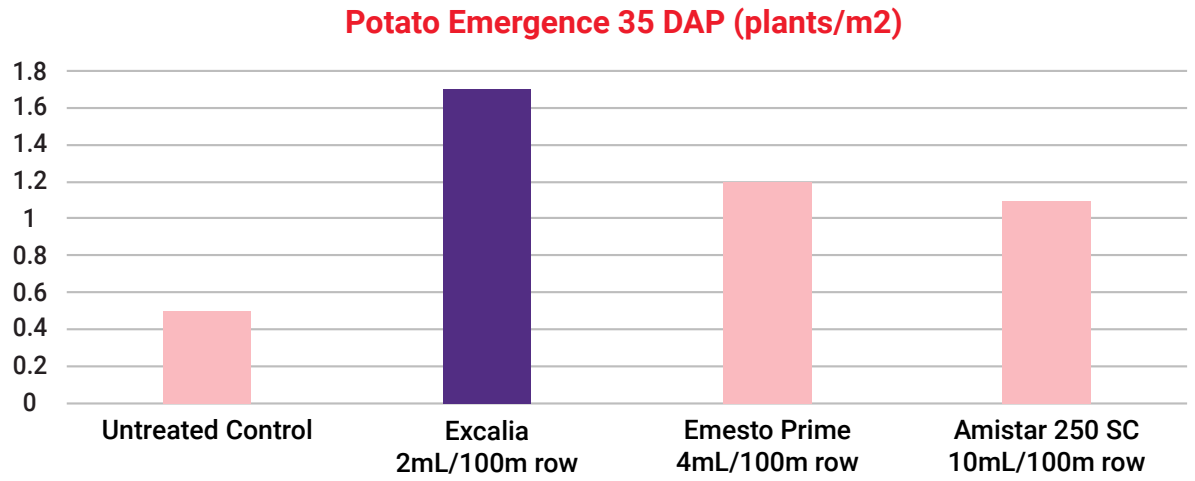
Black scurf on tuber

Directions for use

CROP	DISEASE	RATE	CRITICAL COMMENTS
Potatoes	Soil borne Rhizoctonia solani	2 mL/100 m row	Apply as an in-furrow spray at planting. Preferably use more than one spray nozzle to direct the spray in a 15-20 cm band on to the seed pieces and surrounding soil as they fall into the planting furrow. Apply in 1-3 L of water/100 m row – being careful not to wash previously applied seed treatments from the seed. To reduce the potential for seed piece breakdown, avoid applying in conditions of very high soil temperature or moisture as the addition of moisture to the seed may increase the problem.

Trial Results and Field Testing

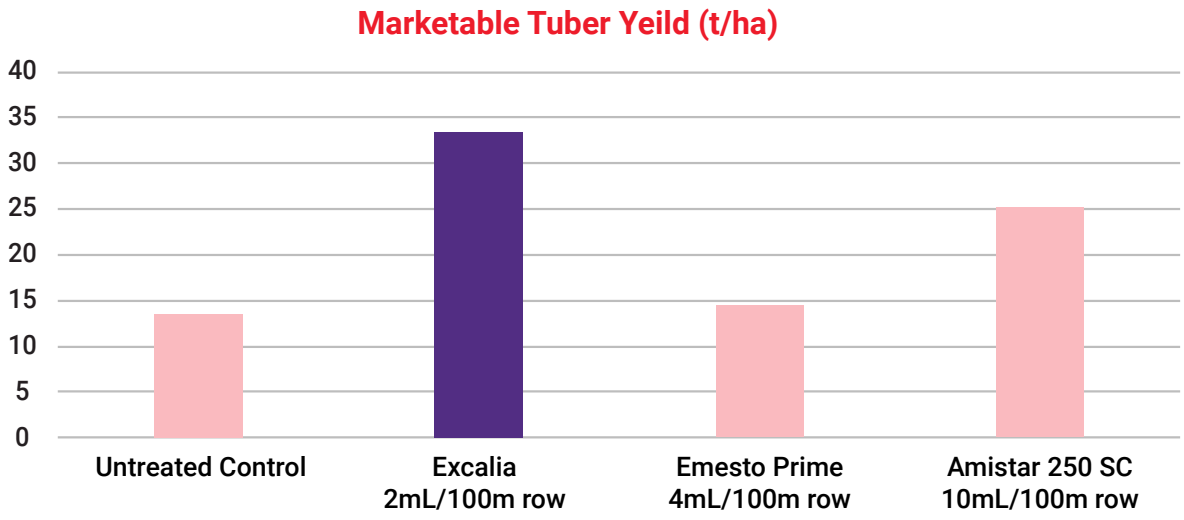
Inoculated Rhizoctonia (AG3) trial. Russet Burbank Forth, Tasmania 2020



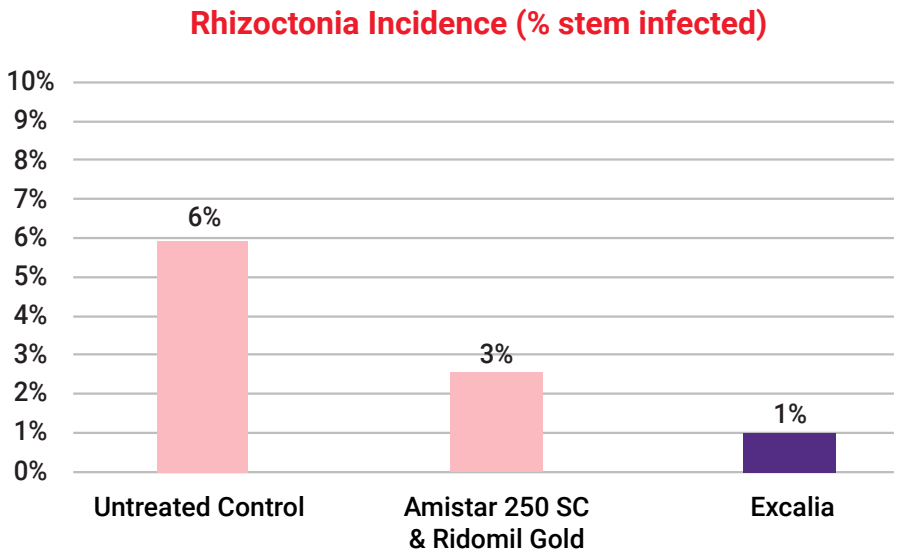
Untreated Control

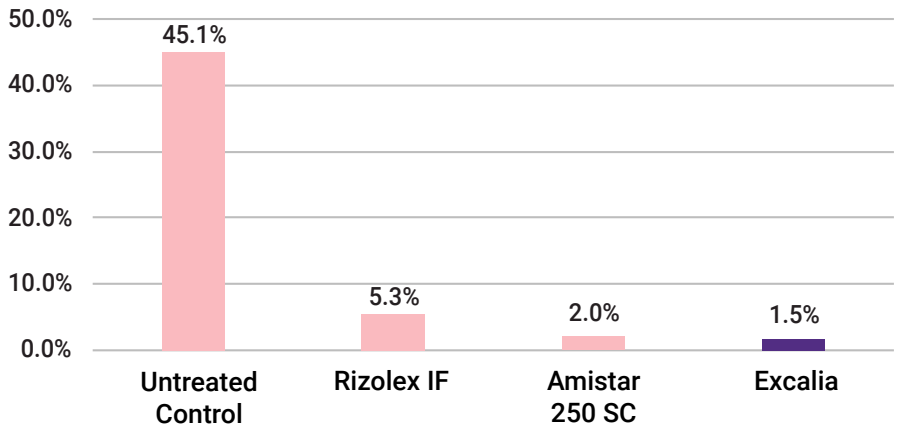
Excalia® 2mL / 100m Row

Amistar® 250SC 10 mL/100 m



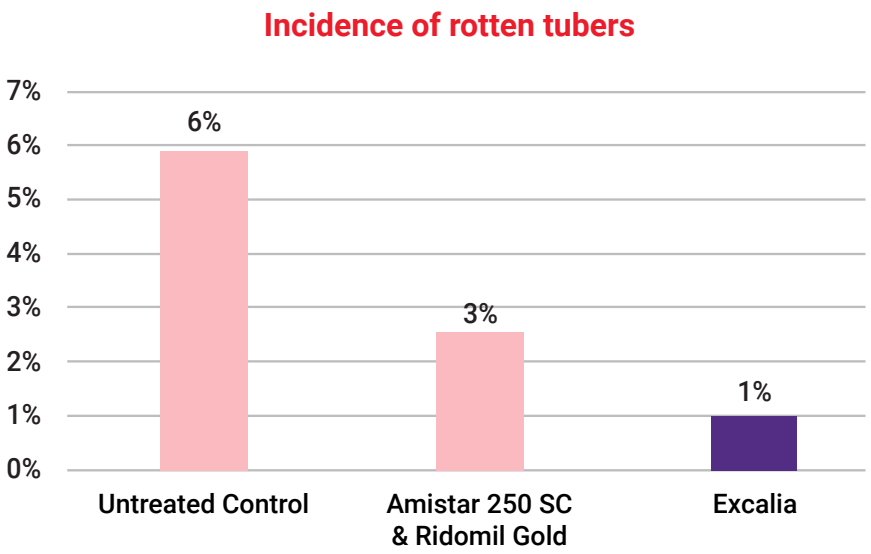
Inoculated Rhizoctonia (AG3) trial. Russet Burbank Forth, Tasmania 2015.





Black scurf

Innovator Potato trial Lileah, Tasmania

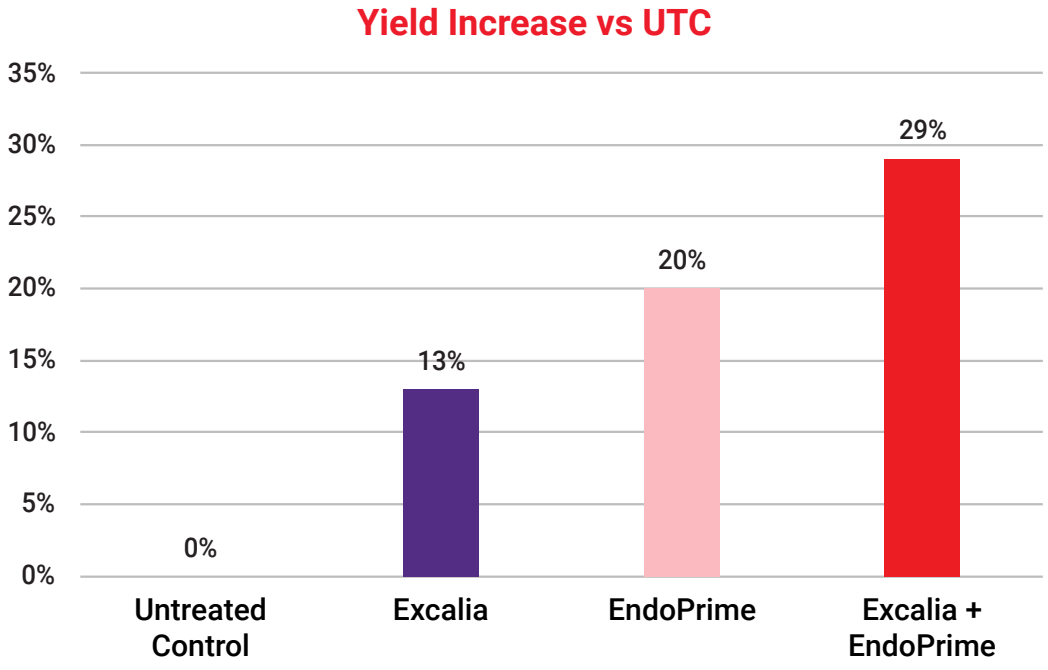


Rotten tubers

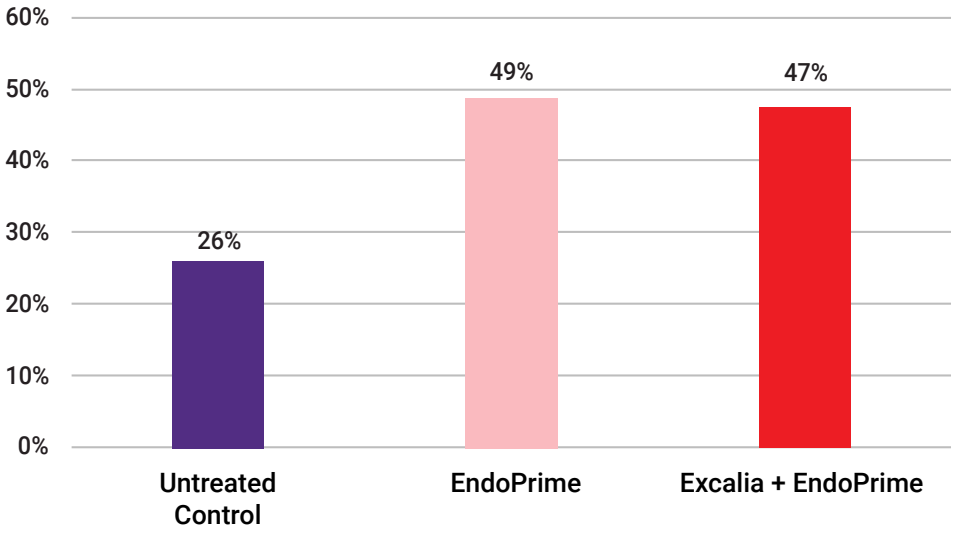
Compatibility with EndoPrime

EndoPrime is an important part of any Potato program looking to maximise yield and potato size. Excalia can be applied in furrow with EndoPrime. Not only is the tank mixture compatible but results are synergistic as highlighted in this trial from Gin Gin Queensland.

The physical compatibility of EndoPrime with Excalia was also tested. The spray mixture was prepared and sent through # 50 and # 80 mesh sieves at 30 minutes after preparation. The solution passed through the sieves without leaving any levels of residues.



Mycorrhizae % Root Colonisation



Application

Excalia Fungicide is applied as an in-furrow application at planting. Mount the spray nozzle so the spray is directed into the furrow at the seed as a 15-20 cm band to apply product just before the seed is covered. Alternatively use a 2-nozzle system per row spraying the furrow prior to seed drop and after it has dropped just prior to covering. To reduce the potential for seed piece breakdown, strictly follow label instructions regarding water volume and follow industry recommended seed piece handling and planting practices.

Typical single nozzle in-furrow spray setup suitable for applying Excalia at planting.

Effective chemical control of R.solani depends on the ability of the fungicide to protect the emerging shoots and growing stems while they are soft and tender, and therefore most susceptible to the disease. Placement of the fungicide in the germination zone – that area directly above and around the seed piece into which the emerging shoots will grow, is therefore critical.

Restraints

DO NOT apply by boom sprayer.
DO NOT apply if heavy rains or storms are forecast within 3 days.
DO NOT irrigate to the point of field runoff for at least 3 days after application.

SPRAYER CLEAN UP If clean-up is required, clean up spray equipment by rinsing all application, pumping and mixing equipment twice with clean water after use.

For further information on Excalia Fungicide please contact:

Andrew Franklin (FNQ)	0408 063 371
Danita Clark (Central QLD)	0447 000 622
Patrick Press (SE Qld & NSW Northern Rivers)	0417 085 160
Ardina Jackson (NW NSW)	0477 967 509
Phil Glover (Central & Coastal NSW)	0418 668 586
Charles McClintock (S NSW)	0429 004 290
Frank Galluccio (NW VIC & Riverina)	0418 502 466
Jack Bartels (Eastern VIC & TAS)	0488 036 313
Matthew Hincks (SA)	0409 807 301
Imre Toth (WA)	0429 105 381
OR our Sydney office:	(02) 8752 9000

EXCALIA™
FUNGICIDE

Scan here to see more information about Excalia Fungicide

SUMITOMO CHEMICAL
AgroSolutions Division
www.sumitomo-chem.com.au
ABN 21 081 096 255
Level 5, 51 Rawson Street EPPING NSW 2121
TEL: (02) 8752 9000 FAX: (02) 8752 9099