The dry: Snail control in 2025

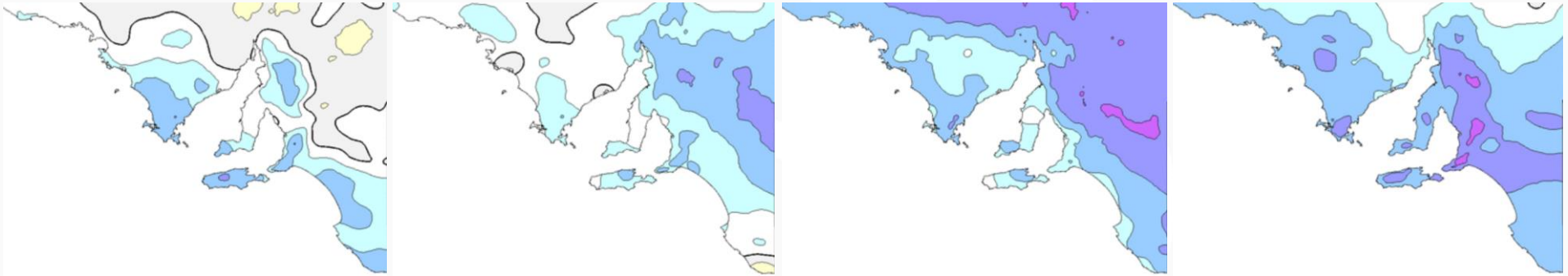




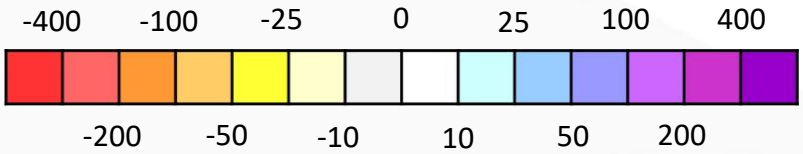
Dr Kym Perry
University of Adelaide

How does the weather drive snail populations?

Why high snail numbers in 2022/23?



Aug 2022 | Sep 2022 | Oct 2022 | Nov 2022

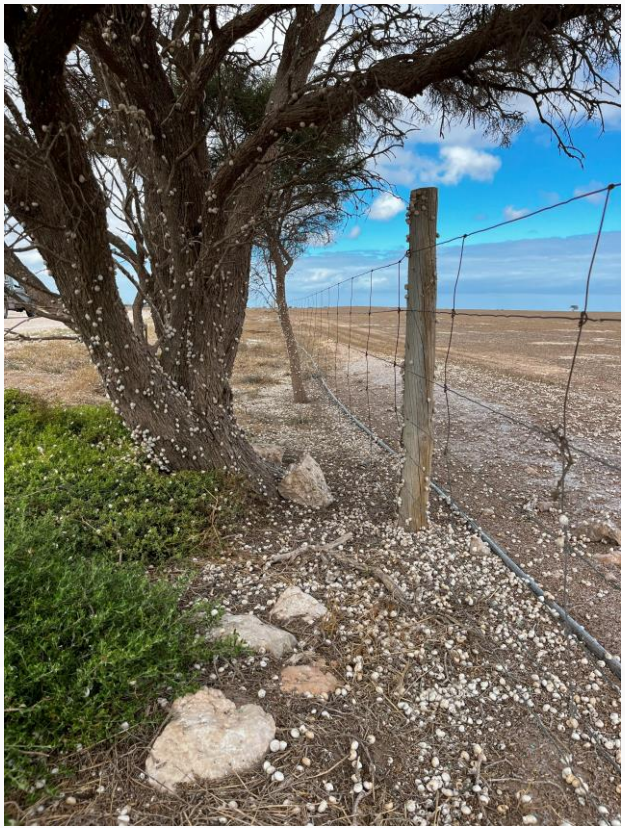


mm above average

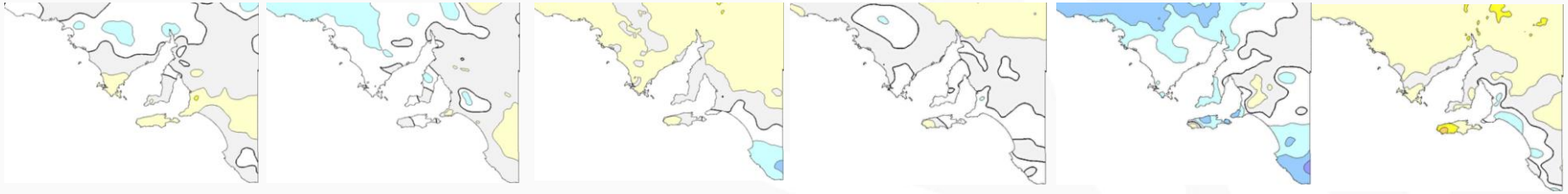
Monthly rainfall anomalies

Australian Bureau of Meteorology

Autumn 2023



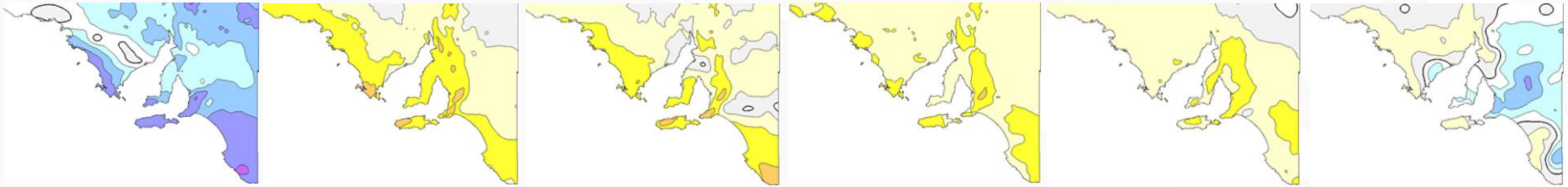
Monthly rainfall anomalies 2023



Dec 2022 Jan 2023 Feb 2023 Mar 2023 Apr 2023 May 2023

High snail carry-over

Decent breeding conditions



Jun 2023 Jul 2023 Aug 2023 Sep 2023 Oct 2023 Nov 2023

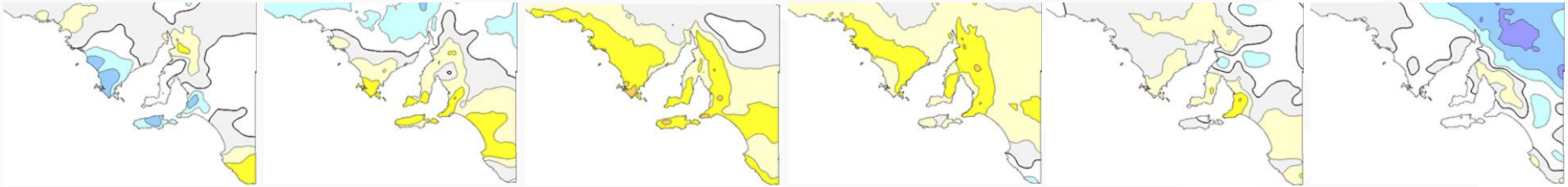
Snail problems at harvest

Monthly rainfall anomaly 2024

Dec 2023 Jan 2024 Feb 2024 Mar 2024 Apr 2024 May 2024

High snail carry-over

Poor breeding conditions



Jun 2024 Jul 2024 Aug 2024 Sep 2024 Oct 2024 Nov 2024

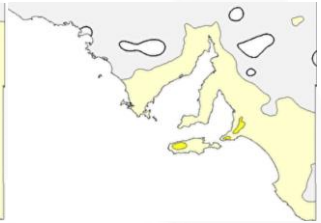
Poor survival and growth

Monthly rainfall anomalies 2025

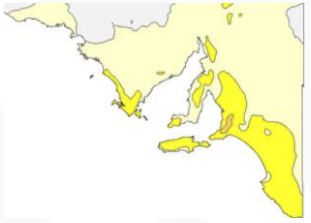
Dec 2024

Jan 2025

Feb 2025



Mar 2025



Apr 2025

?

May 2025

High snail mortality, low carryover ----→

?

Jun 2024

?

Jul 2024

?

Aug 2024

?

Sep 2024

?

Oct 2024

?

Nov 2024

Autumn 2025

What does this mean for snail control – can I take it easy?

#1: More than meets the eye

Small pointed snails at the base of *Brassica* stalks, Feb 2025

#2: Snails can bounce back

Italian snail	Vineyard snail	Conical snail	Small pointed snail
			
≈ 3000	≈ 3000	≈ 350	≈ hundreds

Egg production per adult breeding pair

Integrated snail management

Weed control

Cabling

Rolling

Grazing

Burning

Baiting

Harvest

Grain cleaning

Biocontrol

Farm hygiene

Getting ahead in summer, autumn

Weed control

Cabling

Rolling

Grazing

Burning

Baiting

Harvest

Grain cleaning

Biocontrol

Farm hygiene

… result -> more effective baiting

Weed control

Cabling

Rolling

Grazing

Burning

Baiting

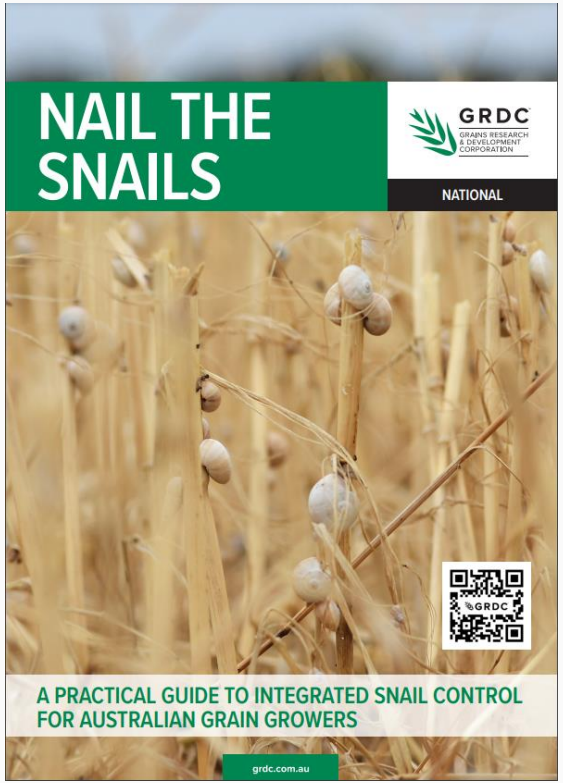
Harvest

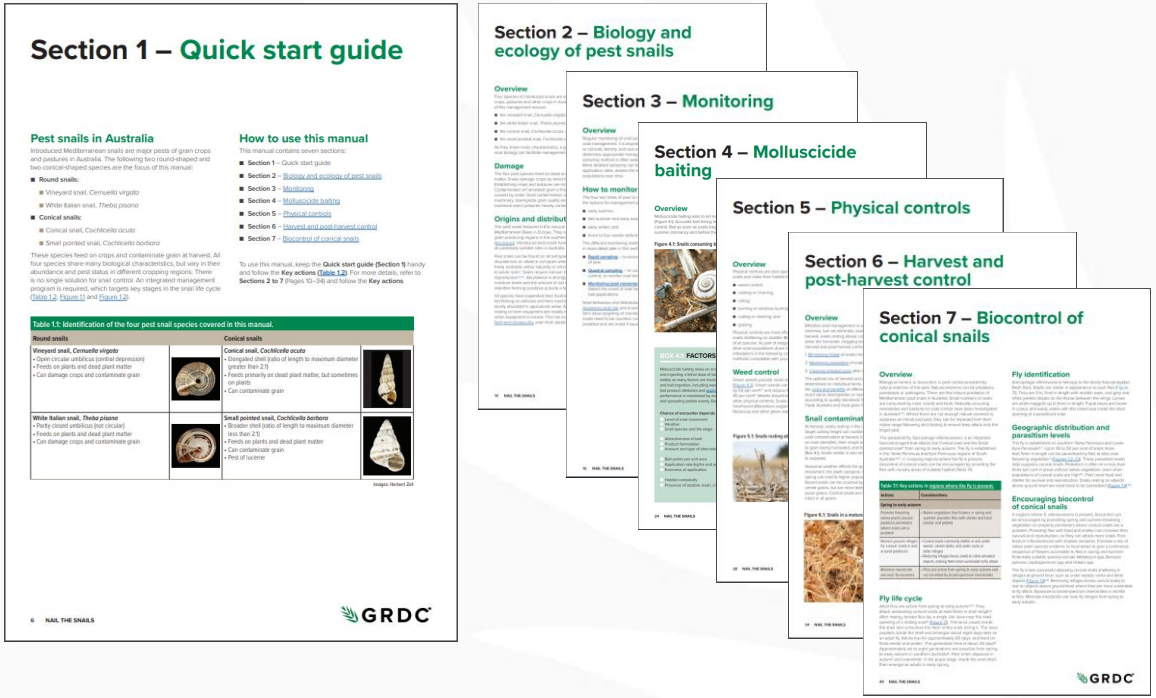
Grain cleaning

Biocontrol

Farm hygiene

Integrated snail management





https://grdc.com.au/resources-and-publications/all-publications/publications/2023/nail-the-snails

Baiting tips for 2025

-> Bait all infested areas

-> Don’t skimp on rates

Aim for 30+ pellets per m^2

-> Spread pellets evenly

-> Get the timing right

Section 4 – Molluscicide baiting

Overview

Molluscicide baiting aims to kill mature snails before they breed (Figure 4.1). Accurate bait timing and application are essential for control. Bait as soon as snails begin feeding at the end of their summer dormancy and before they lay eggs. Broadcast pellets evenly using a calibrated spreader to deliver the label rate of product. Baiting provides partial control and is best used in combination with other physical controls (Section 5).

Figure 4.1: Snails consuming bait.

Image: Helen Brodie

Image: Kym Perry

BOX 4.1: FACTORS AFFECTING BAITING PERFORMANCE

Molluscicide baiting relies on snails encountering bait pellets and ingesting a lethal dose of toxin. Baiting efficacy can vary widely as many factors are involved in the chance of encounter and bait ingestion, including weather conditions, snail behaviour, bait product attributes and application (see table below). Baiting performance is maximised by accurate timing of bait application, and spreading pellets evenly. Baits are most toxic to snails during autumn and early winter, just before and early in the breeding season[1] (Figure 4.3). Baits kill both adult and juvenile snails, but juveniles are less likely to encounter pellets[2]. Controlling mature snails at the end of summer, as soon as they start feeding, provides the best return on investment in molluscicide baiting. This is after natural mortality and cultural control has already reduced populations and before they lay eggs.

Chance of encounter depends on:

- Level of snail movement
- Weather
- Snail species and life stage
- Attractiveness of bait
- Product formulation
- Amount and type of alternative food (plants, dead plant matter)
- Bait points per unit area
- Application rate (kg/ha and pellets per m^2)
- Evenness of application
- Habitat complexity
- Presence of stubble, trash, crop plants

Ingestion of a lethal dose depends on:

- Snail physiological state
- Time of year
- Snail hunger levels and metabolism
- Bait palatability
- Product formulation
- Product hardness (snails prefer soft pellets)
- Bait points per unit area
- Application rate (kg/ha and pellets per m^2)
- Pellet size
- Active ingredient (a.i.) concentration
- Product formulation (g a.i/kg)
- Product integrity and persistence (a.i. loss via temperature, moisture or microbial breakdown)

GRDC

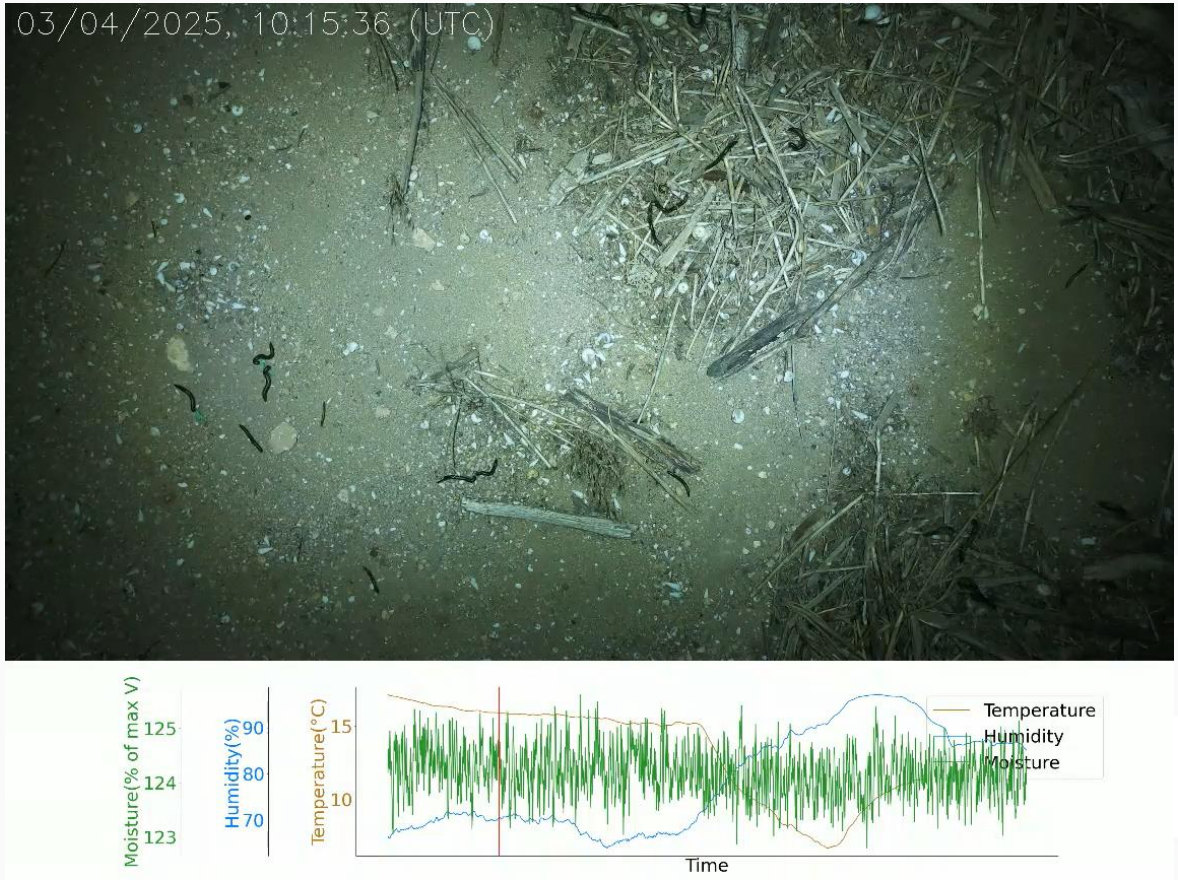
Table 4.2: Bait product selection guide†.

Product name	Active ingredient A.I.	A.I. g/kg	APVMA Product No.	Label rate kg/ha	No. pellets / m² at label rates	Pellet type
Sabakem® Metaldhyde Snail and Slug Pellet	Metaldehyde	15	86284/115239	10	25	dry bran
Snailex Slug and Snail Pellets	Metaldehyde	15	68580/110574	5–7.5	13–20	dry bran
SlugOut® All Weather Slug and Snail Bait	Metaldehyde	18	49324/58633	10	88–112	granule
Delicia® SLUGGOFF® Lentils	Metaldehyde	30	60931/0409	3	30	wet extruded
Axcela® Slug and Snail Bait	Metaldehyde	30	87576/118701	5–7	36–51	wet extruded
Metarex Inov® Slug and Snail Bait	Metaldehyde	40	88160/120463	4–5	24–30	wet extruded
Metarex® Micro Slug Bait	Metaldehyde	50	68958/59492	5 drilled	–	wet extruded
Imtrade Metakill Snail and Slug Bait	Metaldehyde	50	64990/117488	5–8	30–60	wet extruded
Imtrade Transcend® Molluscide and Insecticide	Metaldehyde + 1.5g/kg fipronil	50	87832/125262	4–8	28–55	wet extruded
Multicrop® Multiguard® snail and slug killer	Iron EDTA complex	60	60104/0905	5–16	9–38	dry bran
Eradicate® Snail and Slug Killer	Iron EDTA complex	60	68634/58804	5–16	14–45	steam process bran
IRONMAX Pro® Slug and Snail Bait	Iron as iron phosphate	9	89908/126325	5–7	31–43	wet extruded
Protect-us® Mineral Snail and Slug Killer	Iron powder	10	81712/103787	50 applied @ 15	110 @ 15kg/ha	wet extruded

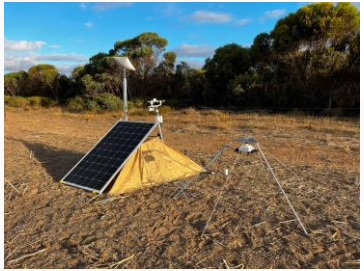
Control millipedes before baiting snails

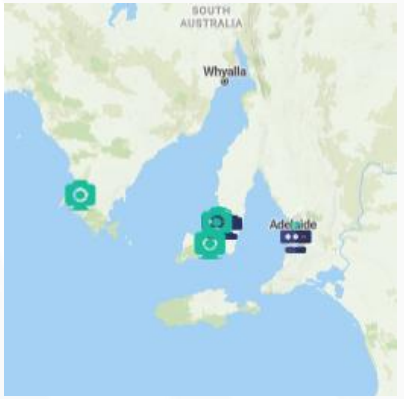
Control millipedes before baiting snails

3 Apr 2025,
Warooka SA



Getting the timing right



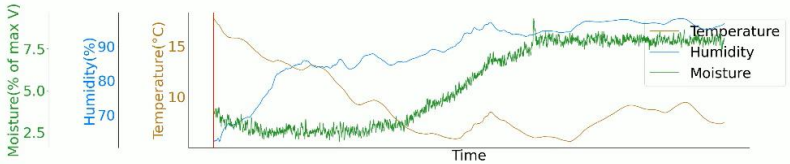


Part of GRDC investment

More effective control of pest snails in Australian grain crops

RH ≈ 90-95%

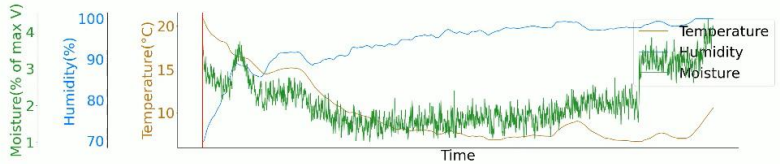
Round snails



3 April 2025

RH ≈ 97+%

Round + conical



6 April 2025

Coulta, SA

Snail research

More effective control of pest snails in Australian grain crops
GRDC, 2022-2026


Revegetation for enhanced biocontrol of pest conical snails
SAGIT, GRDC, 2022-2028*


Calcium requirements of Australian pest snails and the impact of liming
GRDC, 2024-2028


Key points

- Take advantage of the dry weather to keep snails down
- Monitor and bait snails now, when relative humidity >90%
- Follow me on socials to keep updated on snail activity

Dr Kym Perry

+61 421 788 357

kym.perry@adelaide.edu.au

https://researchers.adelaide.edu.au/profile/kym.perry

@x_slimeminister

@the_slimeminister