

## WHAT THREATS DO SLUGS AND SNAILS POSE THIS SEASON (2025) – LESSONS LEARNED FROM PREVIOUS SEASONS

### Key points

- Every season poses different challenges – understanding when slugs and snails are active underpins successful management.
- Multiple bait applications are required to reduce snail numbers in the autumn. Rolling in early autumn prior to bait application complements control.
- Establish susceptible crops, such as canola, quickly to outgrow establishment pests.
- Protect susceptible seed/seedlings from slugs after sowing by rolling, then applying baits before crop emergence.
- Long-lasting baits, such as Metarex Inov®, allow seeding to continue whilst protecting emerging crops.

### Importance of long-term spring monitoring for slugs

Since 2013, AgNova Technologies Pty Ltd and the Grains Research and Development Corporation (GRDC) have supported ongoing monthly slug monitoring at three sites in Southwest Victoria. In response to the unprecedented extent of slug damage in 2023, monitoring has been expanded to areas where slugs

have traditionally been a threat and to new areas where slugs caused damage in 2023, for example, northern Victoria and western slopes of NSW.

GRDC monitoring (UOA2308-004RTX) found that slugs were active across several regions despite dry autumn and winter conditions in 2024, however, slug communities varied considerably between individual paddocks. In Southwest VIC, Wimmera VIC and WA, slugs peaked in June and July, while in Riverina NSW, Eyre Peninsula SA, and Southeast and Mid North SA, slug numbers peaked in late July or August. Black keeled slugs were recorded across all southern Australian sites. Numbers increased across all sites in late winter/early spring, with the highest populations observed in Eyre Peninsula SA and Southwest VIC. Subsequent decreases in spring populations were recorded in Southwest VIC, Riverina NSW, and WA after those peaks. These observations support previous results that black keeled slugs are most active and likely to be breeding in late winter and early spring.

No grey field slugs were observed in Riverina NSW, Fleurieu SA, Wimmera VIC or WA during 2024. Grey field slugs are active for over a longer period of months compared to black keeled slugs. Grey field slugs were



Brad Johnson, Area Sales Manager, in the field with an AgNova Metarex Inov and Ironmax Pro Slug and Snail Monitoring Mat. Monitoring and early detection of slug and snail activity is essential for successful management

found laying eggs in December at one irrigated site in Southeast SA. Interestingly, a high proportion of individuals found in several paddocks in Southwest VIC during early spring had ciliate infections, which increase hatchling slug mortality.

These 2024 observations contrast to those following the wet spring in 2022 that favoured slug breeding, with black keeled slugs still laying eggs in late November, leading to extremely high slug populations at crop establishment in 2023. From this long-term monitoring, it can be concluded that long cool springs favour slug recruitment and reduce juvenile slug mortality. Slug activity, when crops are emerging, requires a soil water potential to be somewhere towards field capacity, that is, for a clay loam soil type, volumetric soil moisture >25–30%. Temperature is an important factor determining slug activity, that is, slugs are less active when the soil temperature is <10–12°C. GRDC is supporting the development of models to validate the conclusions presented here and help inform slug risk decision support tools in the future.

### What to expect in 2025 – slugs

In 2024, proactive growers who applied bait after seeding to protect seed and seedlings had no crop losses, even in areas where summer rainfall or irrigation saw slugs active in January. This result could have been due to low populations being less active due to dry establishment conditions, in combination with some bait applied as insurance. Given the dry spring in 2024 and low soil moisture, it is expected that low slug populations will persist into 2025. Furthermore, following two dry springs, the potential for large numbers of black keeled slugs to persist into 2025 is low.

BUT...slugs observed on the soil surface are only the active proportion of the slug population; the total number is often much greater. This highlights the need to not be complacent and, if soils are at field capacity (35–45% moisture) when the crop is establishing, a greater proportion of slugs will be at the surface, feeding on seedlings.

For those areas that traditionally experience slugs, despite the expectation of lower numbers of slugs in 2025, if conditions are wet at seeding and establishment of canola is slow, baiting after sowing but before crop emergence is recommended. Use long-lasting baits, such as Metarex Inov, for sustained control where monitoring of establishing crops every 3–4 days is not possible.

For those areas that are new to slugs, ongoing research is seeking to determine the years where bait needs to be applied, so no recommendations can be made on baiting at present. The question is: can you afford to take the risk of having to resow crops in cold wet conditions?

### Snails – 2025 summer activity

Real-time monitoring of snails using cameras deployed at Warooka SA indicates juvenile snails are active on dews, trying to rehydrate, but are not showing interest in baits. Conical snails are not taking baits either. The current message has been to roll paddocks to reduce snail numbers in February/March prior to baiting once snails are hydrated and actively feeding, but before egg laying occurs.

Timing of controls is critical for success. In 2025, this may mean baiting once heavy dews and cooler temperatures occur; when round snails are actively feeding in March; and again, later in April, when conical snails are actively feeding. However, in 2024, there were few opportunities to bait conical snails due to the late break. Growers need to monitor the state snails are at and apply bait accordingly, highlighting the importance of the development of real-time monitoring tools.

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