SUNFLOWER | SCLEROTINIA HEAD ROT

The desiccation dilemma

Drying sunflower heads earlier aims to reduce the living green tissue available for disease to infect, but timing is critical. It may also reduce the number of sclerotia returned to the soil and the disease pressure next season, although this was not measured. Drawing on field trials, this guide supports informed decisions alongside crop maturity, growers' experience, local agronomic advice and registered product labels.

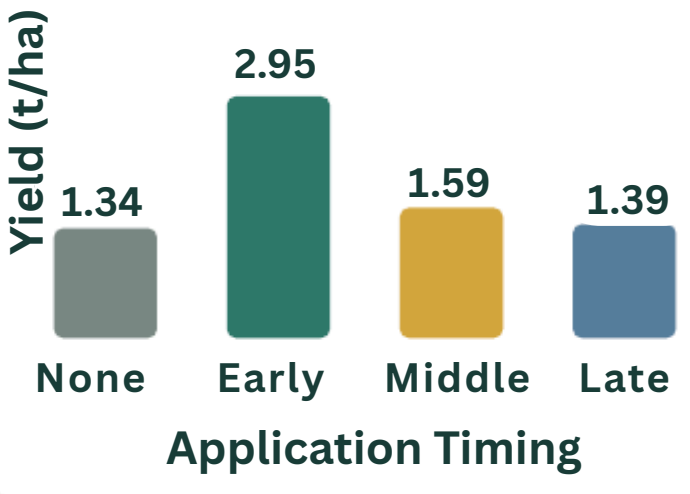
01 WHAT THE FIELD TRIALS SHOWED

Delmas, Mpumalanga | Reglone (diquat) | Inoculated, unwounded heads

**Head rot incidence is the percentage of plants with head rot, averaged across all treatments.*

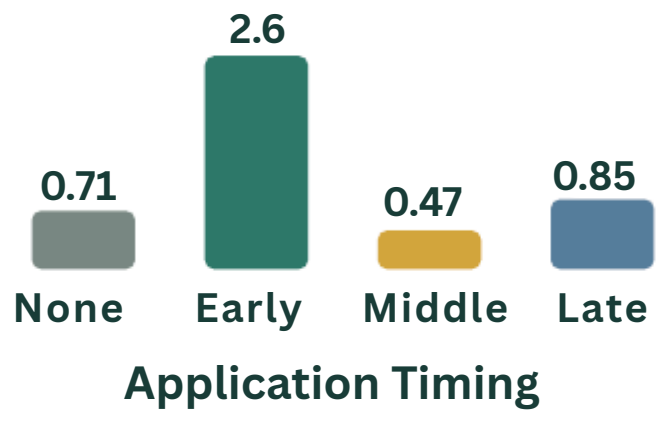
23 DEC 2023

72% mean head rot*



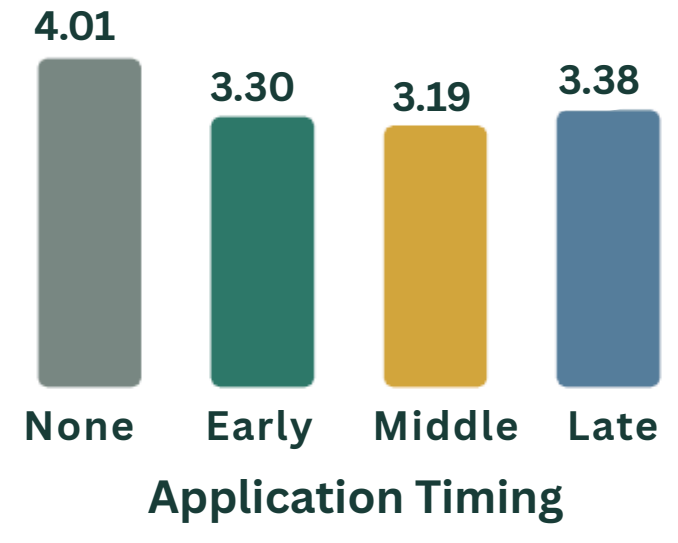
15 JAN 2024

76.8% mean head rot*



23 JAN 2025

12.6% mean head rot*



None = No desiccant was applied; Yield estimates: 150 heads per treatment in 2023/24; 30 in 2024/25, with extensive bird damage.

Approximate application timing by planting date

Planting date	Early	Middle	Late
23 December 2023	93 DAP	101 DAP	109 DAP
15 January 2024	100 DAP	106 DAP	113 DAP
23 January 2025	108 DAP	115 DAP	122 DAP
Estimated BBCH stage*	**83–85**	**85–87**	**89**

DAP = days after planting.

*Estimated equivalents of early R7–R8, middle R8–R9 and late R9; BBCH stages were not recorded at application.

02 CONSIDER THESE BEFORE MAKING A DECISION

CROP MATURITY

Is seed filling complete? Application timing must be considered alongside crop development.

DISEASE IN YOUR FIELD

Consider how badly heads are affected, as well as how many plants have head rot.

UNCERTAINTY

There is no clear application threshold yet. Trial results may differ under normal field conditions.

03 RESEARCH TIMINGS ARE NOT A SPRAYING RULE



Results presented here are for Reglone, although other diquat-based products are available. The supplied Reglone label specifies application at 30–40% moisture or when the peripheral bracts on sunflower heads are brown and becoming brittle (late R9). Please take note of the labelled withholding period. Reducing sclerotia returned to the soil is a possible benefit; it was not directly measured. Research is continuing, including closer assessment of disease severity, yield benefits and return on investment.

LEARN MORE:

Watch these videos for practical perspectives on desiccation in sunflower and canola, including crop maturity, application timing and product considerations. Always follow the current registered label for your specific product, and use only products registered locally for sunflower.

For more information please feel free to contact Dr Lisa Rothmann at 079 270 9691.

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SOUTH AFRICAN SCLEROTINIA RESEARCH NETWORK