

Applying Flexi-N - boomsprayer or seeder?



Background

Over the past four years there has been considerable interest among WA farmers in the application of liquid fertilisers through liquid injection systems on seeders. Not only is this a convenient way to apply nitrogen, but Flexi-N can also be used as a carrier for in-furrow fungicides and trace elements.

On average in 22 trials over five years, Flexi-N banded improved nitrogen use efficiency by 4-8%. This means that the rate of banded nitrogen could be reduced by 10-20% to achieve an equivalent result to topdressed nitrogen.

Key Results

- Banded Flexi-N improved nitrogen uptake and early growth
- Banded Flexi-N treatments produced a 35 per cent yield increase compared to urea topdressed immediately before sowing
- Banding Flexi-N produced higher grain protein than top-dressed treatments
- When nitrogen banded 2-3cm below the seed, Flexi-N was much safer than urea, but plant establishment could be reduced above 100L/ha.



The pressurised liquid system injects Flexi-N behind the seeding tube and in front of the presswheel.

Summary

- Banding nitrogen enhances nitrogen-use efficiency compared to topdressed nitrogen.
- Flexi-N is safer to band than urea, but both fertilisers should be kept 2 to 3cms away from the seed.
- Banding Flexi-N also allows flexible application of in-furrow fungicides and trace elements.
- Banding Flexi-N is more effective than boomsprayer applications, especially on wide rows and in weedy situations.

