

Nodulaid™ Use by Water Injection

The number of liquid carts for liquid fertilisers and trace element injection below the seed for cereal and oilseed crops is increasing. This allows the use of these systems for injecting legume inoculant bacteria for legume crops, given the liquid carts are not being used for nitrogen application.

This method has been field tested and proven by Becker Underwood, the CSIRO and Queensland DPI. It utilizes the same Nodulaid formulation that is used to apply to seed and the same rate per tonne of seed applied (see table below).

Application method

- Pre-mix Nodulaid into a slurry or place into a porous bag (eg Hessian or Muslin bag)
- Pour slurry into the tank or attach bag to tank lid while filling tank with chlorine-free water
- Nodulaid is able to be pumped through 80 mesh (0.18mm) filters and 0.22mm orifice plates (Nodulaid peat is ground to 75 microns/ 0.075mm or less)

Lupin, Field Pea, Faba Bean, Chickpea and Soybean

Large packs of Nodulaid per 1000L water

kg treated per packet kg

Water rate ζ (L/ha)

		50	60	70	80	90	100	
Sowing rate (kg/ ha)	60	2.4	2.0	1.7	1.5	1.3	1.2	
	70	2.8	2.3	2.0	1.8	1.6	1.4	
	80	3.2	2.7	2.3	2.0	1.8	1.6	
	90	3.6	3.0	2.6	2.3	2.0	1.8	
	100	4.0	3.3	2.9	2.5	2.2	2.0	
	110	4.4	3.7	3.1	2.8	2.4	2.2	
	120	4.8	4.0	3.4	3.0	2.7	2.4	
		Recommended water rate						

Manual calculation

$$\text{Number of Nodulaid packs} = \frac{\text{Sowing rate}}{\text{kg treated packet}} \times \frac{1000\text{L}}{\text{Water rate}}$$

It is expected that the nodulation effectiveness will be maximised given the rhizobia is mixed with water at sowing rather than when the seed is treated. The liquid band is often placed below the seed where subsoil moisture is likely to be retained and soil temperature is lower compared to where the seed is sown.

At this stage no compatibility testing has been done with other products so it is recommended that the tank be clean of other products.

For any further queries, please give David Clegg, Sales Manager for WA a call on 0408 630 641 or email david.clegg@beckerunderwood.com



Sub Clover, Lentil and Serradellas

Large packs of Nodulaid per 1000L water

kg treated per packet kg

Water rate ζ (L/ha)

		50	60	70	80	90	100
Sowing rate (kg/ ha)	5	0.4	0.3	0.3	0.3	0.2	0.2
	10	0.8	0.7	0.6	0.5	0.4	0.4
	15	1.2	1.0	0.9	0.8	0.7	0.6
	20	1.6	1.3	1.1	1.0	0.9	0.8
	60	4.8	4.0	3.4	3.0	2.7	2.4
	70	5.6	4.7	4.0	3.5	3.1	2.8
	80	6.4	5.3	4.6	4.0	3.6	3.2
			Recommended water rate				

AL, B and some C's

Large packs of Nodulaid per 1000L water

kg treated per packet kg

Water rate ζ (L/ha)

		50	60	70	80	90	100
Sowing rate (kg/ ha)	2.5	0.4	0.3	0.3	0.3	0.2	0.2
	5	0.8	0.7	0.6	0.5	0.4	0.4
	7.5	1.2	1.0	0.9	0.8	0.7	0.6
	10	1.6	1.3	1.1	1.0	0.9	0.8
	12.5	2.0	1.7	1.4	1.3	1.1	1.0
	15	2.4	2.0	1.7	1.5	1.3	1.2
	20	3.2	2.7	2.3	2.0	1.8	1.6
			Recommended water rate				

Bisserulla and some specials

Large packs of Nodulaid per 1000L water

kg treated per packet kg

Water rate ζ (L/ha)

		50	60	70	80	90	100
Sowing rate (kg/ ha)	2.5	1.0	0.8	0.7	0.6	0.6	0.5
	5	2.0	1.7	1.4	1.3	1.1	1.0
	7.5	3.0	2.5	2.1	1.9	1.7	1.5
	10	4.0	3.3	2.9	2.5	2.2	2.0
	12.5	5.0	4.2	3.6	3.1	2.8	2.5
	15	6.0	5.0	4.3	3.8	3.3	3.0
	20	8.0	6.7	5.7	5.0	4.4	4.0
			Recommended water rate				