Lentil Inoculants

OLUME 5 ISSUE I

Government of South Australia

lesources Management Board

GRDC

Grain& Graze

AIM: To compare different inoculants on Lentils with untreated

<u>CROP</u>: Nipper Lentils (Lentils grown in the paddock in 2010 as well)

<u>OUTCOMES DESIRED:</u> To measure the difference in yield by inoculating Lentils

To assess whether a difference is measured in yield after only 2 years break between Lentil crops

Table 1. Summary of assessments.

<u>Irt</u> . No.	Treatment	Yield T/ha
1	Untreated	1.24 b
2	Nodulaid peat	1.48 a
3	Nodulator granule	1.47 a
4	Nodulaid peat + NT	1.46 a
Co-efficient of variation		8.3%
LSD 5%:		0.14

Means followed by the same letter do not significantly differ.

The use of inoculants in this trial had a resounding positive impact on yield with responses being up to 20% over the untreated. The results from this trial would indicate that the benefits of utilising inoculants, even in a tight pulse rotation, are worthwhile in this environment.

Inoculants are not commonly used on Lentils due to the close rotation of them on NYP, but those that do use them report back yield increases on an annual basis.

On the lighter, less fertile soil types throughout the NSS region, the rhizobia bacteria in the inoculants supply much needed nutrition to the Lentil plants. In years with less mineralisation (like 2012) and on these soil types, you can see a visual response (and now measured response) to the addition of these inoculants.

There was no difference between inoculant types. It has been touted that the granule type is better for dry sowing and even though this trial was planted prior to the break of the season into quite dry soil, there was still enough moisture to germinate the lentils, so not true dry sowing in this case.

Farmers with triple boxes on their air-seeders, or with small seed boxes have the advantage of applying the granular inoculants easily. Peat inoculants can be a pain to handle and require getting the treated seed sown within 24 hours. For these reasons, some prefer the granules for logistic or convenience reasons.



Inoculated Lentils (right) vs Untreated, showing the difference in early vigour.

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