

VETCHES AND THEIR POTENTIAL IN WESTERN AUSTRALIAN FARMING SYSTEMS

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BACKGROUND

- Vetch first investigated in WA in the 1960's
- The National Vetch Breeding Program was developed by GRDC and SARDI in 1992
- Vetch is seen predominately as a low rainfall legume option where pulses struggle
- The main growing areas have traditionally been the Mallee areas of South Australia and Victoria
- Has been seen as being best suited to neutral to alkaline sandy loam soils
- Trials conducted in low pH soils (4.5-5.0pH) in WA and NSW have show vetch can be successfully grown in these soils, particularly with the right inoculum

REASONS FOR GROWING VETCH

Direct benefits

- High value fodder production, as green grazing, hay or silage
- Common vetch produces high protein grain that can be fed to ruminants
- Can fix significant amounts of nitrogen in the soil, which can increase yields and protein levels in subsequent cereal crops
- Improves soil organic matter and structure
- End use targets can be changed depending on seasonal conditions

Added benefits

- Can be used to target chemical resistant grass weeds
- Grass free vetch crops can break the life cycle of some soil borne diseases which affect cereal crops
- Can assist in rehabilitating run down paddocks
- The crop does not need to be taken through to seed like pulses, saving soil moisture for subsequent crops

VETCH IS NOT VETCH

There are three different species of vetch grown commercially in Australia

- Common vetch (*Vicia sativa*), varieties include Morava [®], Rasina [®], Volga [®], Timok [®], Blanchefleur and Languedoc
- Woolly pod vetch (*Vicia villosa subsp.*) varieties include Capello [®], Haymaker [®], RM 4 [®] and Namoi
- Purple vetch (*Vicia benghalensis*) varieties include Popany and Barloo

[®] Varieties displaying this symbol beside them are protected under the Plant Breeders Rights Act 1994.

COMMON VETCH



WOOLLY POD VETCH



CONSIDERATIONS WHEN GROWING VETCH



- Paddock selection, weed background is important as some broadleaf weeds can be difficult to control
- Targeted end use and reason for using vetch
- Which species and variety to choose to achieve the end goals
- For specific details on vetch variety characteristics please refer to the 2019 SA field Crop Sowing Guide <https://grdc.com.au/resources-and-publications/all-publications/publications/2019/south-australian-crop-sowing-guide>
- In hostile soils (low pH) or soils with a poor legume history inoculate your seed
- Monitor for pests and diseases as they can significantly impact yield
- Treat it as a crop, not a break or fallow

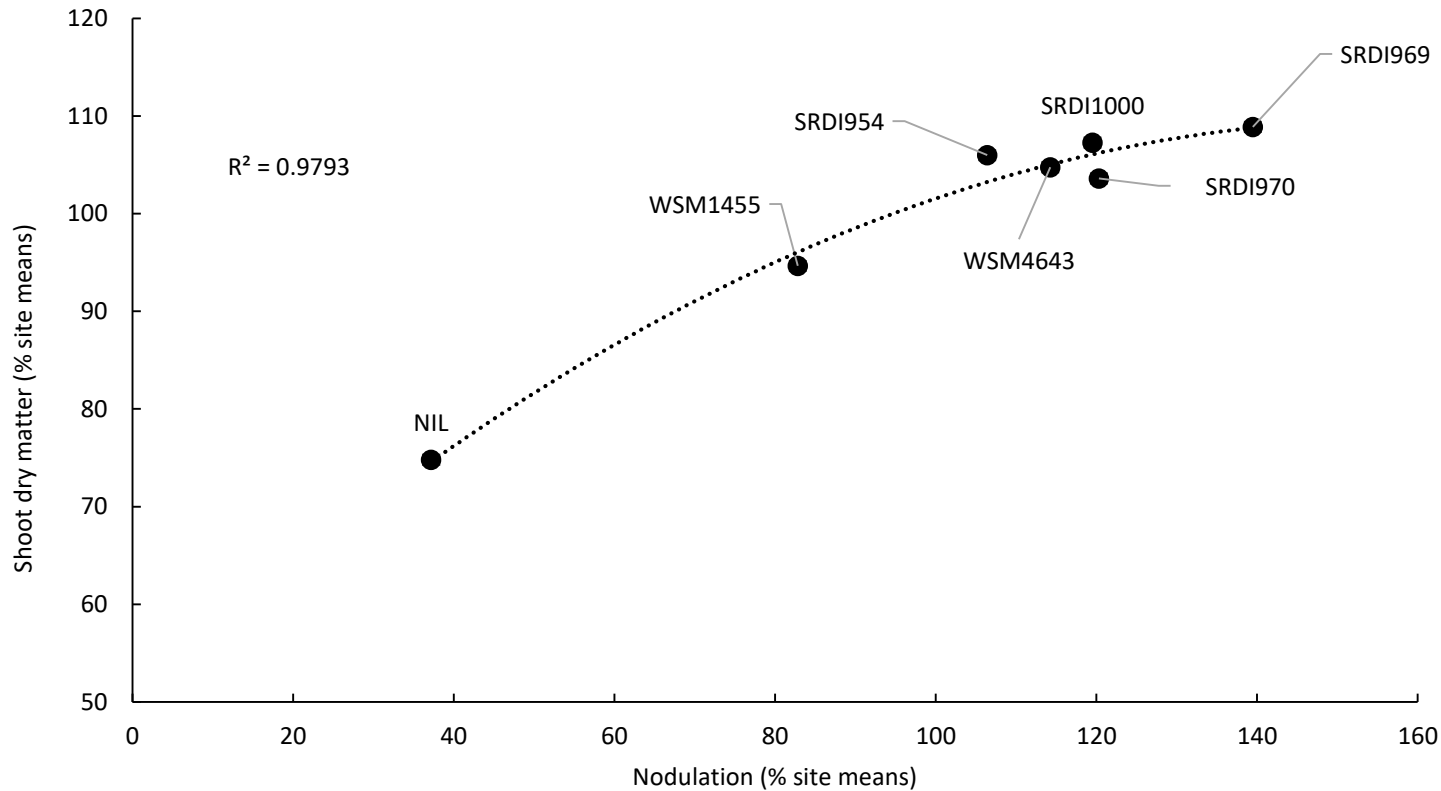


Figure 1. Relationship between nodulation by the different rhizobia strains and total above ground dry matter production (at mid pod fill) of legumes at acidic field sites. (Source, Ross Ballard, SARDI. 2019 Wagga Wagga, GRDC Update paper, for more information see GRDC Project 9176500)

TAKE HOME MESSAGES

- Vetch can be grown in lower pH soils, trials have shown good results in soils with a pH between 4.5-5.0 but the right inoculant should be used
- Inoculation is very important and should be considered every time the crop is sown in hostile soils
- The versatility of vetch can be used to target different issues in the cropping rotation while still obtaining the benefits of including a legume break in rotation
- Treat it like a crop, not a break or fallow, if you want to get the most benefit from it in your rotation

For more information please contact:

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Thankyou

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