



# SAGIT Research Snapshot

S0213: Forage peas – a potential new break crop option for SA

## **FAST FACTS**

### **The details**

**Start:** July 1, 2013 **Finish:** June 30, 2015

**Project participants:** SARDI – Larn McMurray, Michael Lines, Dr Liz Farquharson, Ross Ballard, Stuart Nagel, Leigh Davis. Dr Joe Panozzo, DEPI Horsham. Pat Connell (Tarlee) and Gary Fhlor (Lameroo).

### **The problem**

Pulse Breeding Australia's new forage/dual purpose field pea varieties PBA Coogee and PBA Hayman provide an alternative to vetch and other break crops. However, there was limited evaluation and agronomic understanding of these alternative field pea types.

### **The research**

Field trials were conducted in SA to compare these varieties with other pea and vetch varieties to determine agronomic suitability.

## **BACKGROUND**

With field pea and vetch making up about 120,000 ha of South Australia's cropping area, the introduction of these new varieties offers an alternative to growers looking for a break crop option, particularly in lower rainfall zones.

## **RESEARCH AIMS**

The research was designed to assess the potential of the forage field peas, as well as providing agronomic management guidelines and assessing the nitrogen fixation and hay quality of the forage field peas compared with grain field peas and vetch.

## **In a nutshell**

New forage and dual purpose field pea varieties provide growers with an alternative break crop to vetch. However agronomic management to reduce blackspot disease risk and maximise biomass production will be essential to make the most of these new options.

## **IN THE FIELD**

Forage and dual purpose field peas were compared with grain field peas and vetch at four replicated trial sites in South Australia in both 2013 and 2014. This has provided an understanding of their performance and potential for use as a break crop option in SA.

Trials comparing plant biomass and grain yield production of field pea and vetch were completed at Minnipa, Lameroo, Hart and Tarlee in 2013 and 2014. Nodulation and nitrogen fixation assessments were collected at Hart and Tarlee. The hay quality and digestibility of field peas and vetch samples were analysed for samples from the Tarlee site.

## **RESULTS**

The forage field pea variety PBA Hayman agronomically performed very differently to the grain variety Kaspera and dual purpose varieties Morgan and PBA Coogee and will require a different management strategy to optimise production.

PBA Hayman was found to have a higher biomass production potential than the other field pea varieties evaluated and in some situations than vetch. This increase was up to 70% greater than Kaspera and Morgan in some conditions and was more evident when sown early or grown in more favourable environments.

