

**Project Title:** Developing break crop options on upper Eyre Peninsula

S 4/05 Final Report

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**Project Supervisor:** J Egan

**Contact Details:** Ph: (08) 8688 3424  
Mob:0429 822144  
Email: jim.egan@sa.gov.au

**Executive Summary:**

To provide grain growers in low rainfall districts with viable break crop options, selection and evaluation in oilseeds (canola and both canola quality and biodiesel potential mustards) and faba beans was conducted on Minnipa Agricultural Centre on Upper Eyre Peninsula from 2005 to 2007.

While no new varieties have been released specifically from this program to date, important findings and developments are:

- Selection for early maturity is a critical factor in developing oilseed varieties capable of delivering viable yields in low rainfall environments. Minnipa has proven to be an excellent site for this, to complement selection in the low rainfall Murray Mallee.
- The value of early maturing canola varieties such as Tarcoola has been demonstrated, while a number of promising lines of canola and mustard have been identified for low rainfall environments.
- Mustards have not been shown to have an inherent yield advantage over canola in low rainfall districts of Eyre Peninsula. This could change as breeding and selection develop earlier maturing, higher yielding and oil content mustards.
- Faba beans have not been able to match the yields and reliability of field peas as a pulse crop option for low rainfall districts. Faba bean lines showing better adaptation to low rainfall conditions have been identified, and these are now in advanced evaluation (NVT) trials.
- Lines derived from single plant selections taken in canola, mustard and faba beans at Minnipa have progressed to more widespread evaluation in the respective breeding programs.