## **Agronomy**

The main messages from the agronomy trial work undertaken in 2005 were:

- After a slow start, our season in 2005 ended up producing excellent yields and quality:
  - The TT canola variety Beacon suffered badly with blackleg in 2005. Find a new TT variety such as Bravo, Summit or Tornado.
  - Subsoil limitations hurt Southern Mallee crops during the dry period over August and September. The water was there but crop roots could not make it past the sodicity/salinity/boron and yields and quality suffered.
  - Most pulse crops performed well in 2005. Chickpeas are making a comeback with ascochyta resistant lines now available. Check the actual resistance status of any variety you grow and know the required fungicide spray program.
- Grass weeds are becoming more and more of a concern across our region:
  - There was a large increase in the number of paddocks with Group A resistant ryegrass in 2005 and also an increase number of cases of Group A resistant wild oats.
  - Mataven® also had several failures with wild oat control whether this was resistance or problems with application is not known as yet.
  - As a non-chemical alternative sow cereals on narrow row spacings if possible, to reduce the competitiveness of grass weeds against the crop
- Timely summer weed control is important. Spraying summer weeds over 2004/05 resulted in a 0.5 to 0.7t/ha yield increase. It is a waste of summer rains to feed heliotrope rather than your crops and your profit.
- Climate variability is something we need to learn to live with.
  - In 2005, the Yield Prophet® was accurate where soil parameters were correct. This is going to be an important tool to help match crop inputs to the seasonal conditions.
  - Most forecasts such as the BOM, SOI and GESS struggled to give a definite forecast as the signals were not strong enough to make a solid forecast for wet or dry conditions. The soft spring was definitely a bonus but something that was not predicted with great certainty by any of the major forecasts.
  - It is critical to know the potential of the soil before applying inputs: are there any subsoil constraints? How much stored water is there? How much soil nitrogen is available?

Without the answers to these questions inputs cannot be matched to the crop demand and profit will suffer.