Cereal Aphid Risk Assessment   
South Australia (CARASA)

SARDI Staff Maarten van Helden and Tom Heddle are piloting the SAGIT funded Project CARASA (**C**ereal **A**phid **R**isk **A**ssessment **S**outh **A**ustralia) on the risk of cereal aphids.

Cereals (barley, wheat, Durum Wheat) were sown every month (April to July) in three sites (Bool Lagoon, Loxton, Roseworthy) and aphids (Russian Wheat Aphid, Oat Aphid, Corn Aphid) and symptoms are observed fortnightly.

# Observations results as of 11 July 2017

Our observations (see figures) show that so far (July 11th) the pressure of aphids is mainly due to Russian Wheat Aphids in early sown crops (April sowing) in Loxton and Roseworthy.

The amount of Russian Wheat aphids (Figure A) is low, and the percentage of tillers (Figure B) with symptoms is still very low, far from the intervention threshold (20% of plants with symptoms) at this stage of crop development. Russian Wheat populations do increase slowly.

We are expecting little increase of aphid numbers over the winter months, and cold, rain and natural enemies could reduce numbers. Risk of yield loss will only occur if aphid numbers build up in spring during stem elongation and flowering. During that phase an intervention threshold of 10% of infested tillers is used.

Oat and Corn Aphids do occur only in very low numbers at this stage (Figure C).

We also have visited some paddocks with agronomists, confirming that early sown paddocks are at a higher risk of Russian Wheat Aphids. During April and early May weather conditions might have been good enough for the aphids to migrate.

## Field observation graphs



Above: Figure A



Above: Figure B



Above: Figure C