Genetic focus in saline study

By PETER HEMPHILL

AUSTRALIAN researchers have begun a $2.5 million three-year program to tackle salinity affecting cereal crops.

Program leader Stuart Roy, of the Australian Centre for Plant Functional Genomics in Adelaide, said the program would identify genetic material in wheat and barley varieties that allowed crops to tolerate saline soils.

The program was funded by the Grains Research and Development Corporation and involved scientists at the ACPEG, the University of Adelaide, CSIRO Plant Industry and the University of WA.

Dr Roy said 70 per cent of the Australian wheat belt was affected by salt, costing the grain industry about $200 million to $1.3 billion in lost production.

He said Western Australia was the worst affected state with one in two farms affected by salinity, while in South Australia, every fourth farm had a salt problem.

He said the research would benefit all states, including areas in NSW and Victoria with sodic soils.

Dr Roy said researchers would screen existing and older cereal varieties, plus pre-breeding lines, to find traits that allowed plants to adapt to salinity.

He said there were two damaging aspects of salt:

- The build-up in the soil reduced plant growth; and
- Salt accumulation in plant leaves affected their ability to harvest sunlight.