

## **Stock Journal Article due 6 July 07**

### **SA Leads in Barley Breeding Technology**

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Under research conducted by SARDI and funded by SAGIT, barley varieties can be bred 3 to 4 years more rapidly using a biotechnology known as isolated microspore culture, where plants are grown from immature pollen grains.

This research investigated selection for plants with superior salt tolerance, boron tolerance and manganese efficiency.

Results indicated that selection in barley for some boron tolerance and manganese efficiency genes is possible using this advanced biotechnology but selection for salt tolerance was not successful.

The project concluded that a more profitable approach to obtaining barley breeding lines with salt tolerance, boron tolerance and manganese efficiency may be to exploit genes for these characteristics from wild barley species *Hordeum bulbosum* and *H marinum*.

A new research project funded by SAGIT is exploring this approach and already 3 hybrids have been made and are being further tested.

A spokesperson said that this project involved an internationally significant approach and was typical of SAGIT's policy to support innovative technologies with a high risk but high potential payoff.

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