

**Project No.:** AM 1/03

**Project Title:** Increasing Wheat Yields and Grower Returns Through Improved Nitrogen and Water Use Efficiencies.

**Project Supervisor:** Dr Alan Mayfield

**Contact Details:** Ph: (08) 8842 3230  
Fax: (08) 8842 3330  
Mob: 0418 818 569  
Email: [mayfield@chariot.net.au](mailto:mayfield@chariot.net.au)

### **Executive Summary**

The efficiency of nitrogen use in wheat can be improved by shifting the application from sowing to post crop emergence.

In trials at two sites in 2003 and 2004 there were no significant differences in grain yield between any of the post emergent nitrogen treatments.

The improvement in efficiency is mainly the result of higher protein levels and not grain yield. Delaying N applications to later growth stages will increase protein more. Crop dry matter and tiller production increased with earlier timing and higher rates of N, resulting in higher tiller mortality and wasted fertilise and water.