

ARIZONA GRAIN RESEARCH AND PROMOTION COUNCIL
PROJECT PLAN/RESEARCH GRANT PROPOSAL

Project No.

Calendar Year: 2003 Anticipated Duration: 11/03 to 11/04

This Project is: Ongoing

Project Leaders: Mike Ottman

Location: Maricopa Agricultural Center

Project Title: Testing Low Input Barley and Wheat Lines

- I. Problem and its Significance: The low input barley line, Solum, was released in 1992 by Dr. Tom Ramage. Dr. Ramage continued his breeding work with low input barley after Solum was released, and also worked with low input wheat. Dr. Ramage retired in 1999 and left me with over 200 barley and wheat lines adapted to water stress conditions. The Arizona Grain Research and Promotion Council supported the initial screening of these lines in 2001 and the first and second years of testing of 20 selected wheat and barley lines in 2002 and 2003. The last year of testing will be 2004, and seed purification and increase will occur in 2005.
- II. Objectives: Identify low input barley and wheat lines that have less lodging and higher test weight than Solum but have equal or better grain yield.
- III. Project's Benefit to the Industry: Availability of wheat and barley varieties adapted to low water use conditions.
- IV. Research Collaboration: Tom Ramage (USDA, retired)
- V. Plans and Procedures: Low input barley (20 lines) and wheat (20 lines) will be evaluated at the Maricopa Agricultural Center in small plots (6 ft. x 20 ft.). These lines will be evaluated under one, two, and six irrigations. Maturity, height, lodging, test weight, and grain yield will be measured.
- VI. Technology and Information Transfer to Industry: Via extension newsletters and personal communication.
- VII. Budget: \$5000

Travel	\$1000
Operations	<u>4000</u>
Total	\$5000