

## GENERAL SUMMARY

- A. VARIETY SELECTION:** Variety selection remains one of the most important components of wheat production. In our variety plots, yields and test weight values varied considerably between varieties. The best source of information available for selecting small grain varieties is Virginia Cooperative Extension publication “Small Grains for 2005.”
- B. SEED TREATMENTS:** In two wheat seed treatment demonstration plots with little powdery mildew or barley yellow dwarf pressure, Gaucho XT yielded 6 bushels per acre better than the untreated check.
- C. MICRO-NUTRIENT FERTILIZATION:** In five plots evaluating copper applications to wheat, we got no statistically significant yield increase due to the copper in any of the plots. Last year we got a statistically significant yield increase in two out of seven plots. In one plot evaluating a manganese application to wheat, we did not get a statistically significant yield response to the manganese. Last year, we got a yield response to manganese in two out of three plots. Micronutrient fertilization of small grains should be evaluated on a field by field basis. Fields with high soil pH levels (6.5 or higher) are more likely to develop micronutrient deficiencies. Soil and plant tissue testing should be used by producers to help determine micronutrient needs. Further analysis of this work is available from Dr. Mark Alley, Extension Soil Fertility Specialist.
- D. CROP PROTECTION:** In one plot evaluating fungicide applications at heading to wheat planted using minimum tillage, there was no yield increase due to the fungicide applications. In one plot evaluating fungicide applications at heading to no-till wheat, Stratego increased yields by about seven bushels per acre and Quilt increased yields by about 5 bushels per acre with wheat yields about 100 bushels per acre. In one plot evaluating fungicide applications just prior to head emergence, Stratego increased yields by just over 4 bushels per acre and Quadris increased yields by just over 3 bushels per acre with wheat yields about 100 bushels per acre. In general, disease pressure was low this year.
- E. COVER CROPS:** Cover crops are receiving renewed attention as tools to help improve water quality in the Chesapeake Bay. The revised cover crop practice in Virginia’s BMP program provides a financial incentive to plant cover crops. Review this study that looked at four different small grains at three planting dates and three nitrogen fertilizer rates.