

# National Association of Wheat Growers

NAWG Mandate: Represent wheat growers and, as of October 2006, dedicated biomass energy crop growers

Priorities for wheat production:

1. Develop disease resistant varieties of small grains, especially for highly virulent and aggressive new races of stem, leaf, and stripe rust which now threaten US and world production. Continue research in combating *Fusarium gramineum* (head scab) karnal bunt, and other problem pests. (CSREES Knowledge Area 202)
2. Complete a genomic map of hexaploid wheat and support the International Wheat Genome Sequencing Consortium. This step is essential in any future ability of wheat breeders to apply advanced genetic techniques to wheat variety improvement. Wheat variety improvement has been very slow compared to the other major commodities. (CSREES Knowledge Area 201 & 202)
3. Identify novel genes that provide pathogen resistance, drought tolerance, improved quality and yield, and improved human nutrition. (CSREES Knowledge Areas 201 & 701)
4. Develop comprehensive plant production management systems to reduce costs, improve income, and provide supplemental income, e.g. extend the grazing period for winter wheat, no-till and direct seeding methods for wheat, and efficient use of straw for production of bioenergy. (CSREES Knowledge Area 205)
5. Develop alternative uses for wheat and wheat by-products, e.g. new non-food and food uses for gluten proteins, waxy wheat for biofuels, and wheat as an extender in light-weight building products. NAWG commissioned a New Uses Audit in September 2002 that analyzed and ranked some 20 potential new uses for wheat in terms of volume potential, premium potential, development cost, time to market and technical feasibility. Developmental research needs to be completed on the high-priority possibilities identified in this audit. (CSREES Knowledge Areas 501 and 502)
6. Continued research of methods to control invasive weeds. (CSREES Knowledge Area 203)
7. Develop reliable and accepted methodologies for quantifying carbon sequestration. These methods will be critical for verifying agriculturally produced carbon credits for carbon trading, a supplemental source of income that reimburses growers for adopting carbon conserving production practices. (CSREES Knowledge Area 511)

Priorities for dedicated biomass energy crop growers:

1. Develop annual and perennial dedicated biomass crops adapted to a variety of growing regions. (CSREES Knowledge Areas 202 & 203)
2. Determine the best management practices for the establishment, maintenance, harvesting, and transportation of biomass energy crops; an integrated biomass production system from selection of seed to delivery to the conversion facility. (CSREES Knowledge Area 205)
3. Determine the potential impact of proposed biorefineries on water quality and water quantity. (CSREES Knowledge Area 112)
4. Research alternative processing technologies that would allow the farmer to convert his biomass crop into energy at the farm level or preprocess his biomass crop for added-value. (CSREES Knowledge Area 511)
5. Establish demonstration plots at research stations or at farm sites so growers can become familiar with production, maintenance, and harvesting issues. (CSREES Knowledge Area 205)