FY2011
The National Institute of Food & Agriculture (NIFA)
SPECIAL RESEARCH GRANTS

Funding of $800,000 for the Regional Barley Gene Mapping Project

Barley production, and the manufacture and sale of value-added barley products (malt, beer, food, feed, livestock, fish, biofuels) have a significant impact on the US economy, supporting millions of jobs and generating billions of dollars in business activity and tax revenue for the US and state governments. Barley acreage has declined to historically low levels and the US is in danger of conceding domestic and world markets for barley, and its value-added products (malt, beer, food), to competitors from Australia, Canada, and Europe. This would have a substantial negative impact on the US economy and federal, state, and local tax revenue.

Barley researchers in **Washington, Oregon, North Dakota, Minnesota, and Wisconsin** have developed a coordinated research plan, Enhancing Barley Through Genomics (EBTG), to apply genomics tools to research areas that have the greatest potential for success to increase barley production – winter hardiness; disease resistance; and quality. EBTG is funded via the Regional Barley Gene Mapping Project special research grant. Funding of $800,000 annually is needed and was requested for FY2011. Congress appropriated funding of $471,000 for this special research grant in FY2010; the final USDA-NIFA award amount was $438,345, which was allocated equally between the five states ($87,669 per state). Researchers in Minnesota, Oregon, and Wisconsin (5 projects) are focusing on winter barley – the most exciting alternative for US barley producers and processors. Winter varieties can yield 25 percent or more than spring varieties, and mature earlier, often prior to the onset of high temperature conditions and water stress. With earlier maturity, winter varieties require fewer irrigation applications, a plus in water short regions. Researchers in Minnesota, North Dakota, and Washington (4 projects) are addressing the genetics of disease and disease resistance – including UG99 stem rust. In Minnesota, a project is systematically mining novel genes from wild barley for disease resistance and quality enhancing genes.

The FY2010 EBTG project is just now being implemented and needs continued funding for the next few years to meet its goals. Funding of $800,000 is requested for FY2011 for the Regional Barley Gene Mapping Project special research grant to continue this project in the five states ($160,000/state).