

National Barley Improvement Committee

Honorable XX
Office Building
Washington, D.C.

March 3, 2008

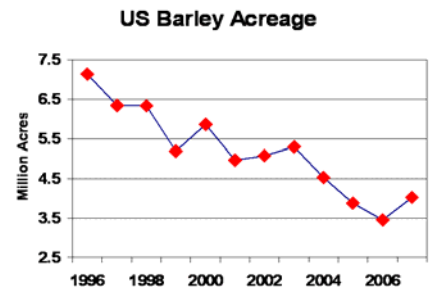
Dear Senator or Representative X:

The National Barley Improvement Committee (**page 34**), which represents the entire US barley industry - growers, researchers, and malting, brewing, and cereal food end-users, is pleased to have this opportunity to meet with you and/or your agricultural specialist to discuss federal funding of barley research and other issues.

Why is federal investment in barley research needed? Barley is primarily a public sector crop. Most barley variety development and research is conducted at state universities and USDA Agricultural Research Service (ARS) facilities. The private sector has limited interest in barley research and variety development because of its limited seed sale potential.

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 (**page 6**). The economic and tax revenue payback from modest federal investments in barley research exceeds by many orders of magnitude the expenditures.

Federal investment in barley research is needed to keep barley an option for US growers and to maintain and enhance value-added job generating enterprises including malt, beer, food, feed, livestock, fish, and biofuel production in the US. US barley acreage has declined significantly in recent years due to a variety of factors, including those that can be addressed through federal investment in research. Critical to maintaining barley as an option to growers is developing improved barley varieties that are more tolerant to drought, diseases, insect pests, and have expanded uses due to improved quality.



We should not concede domestic and world markets for barley and its value-added products to our competitors in Australia, Canada, and Europe. This will have a substantial negative impact on the US economy and federal, state, and local tax revenue.

Continued investment by the federal government is required to realize improvements in crop productivity and quality, that provide food security to the US, contribute to a healthy environment, and foster enhanced economic activity. With reductions of federal support to producers, **our nation's investment in research is critical** to maintain a healthy agricultural economy and competitiveness in world markets.

USDA AGRICULTURAL RESEARCH SERVICE (ARS)
Salaries & Expenses

The USDA-ARS budget for salary and expenses declined by 0.7% from FY07 to FY08 due to rescission, with no provision made for mandatory salary increases. The total reduction was an across the board 0.7% rescission plus an additional \$20 million which was absorbed by ARS to cover salary increases. With the majority of funds at most locations obligated to fixed facility and salary costs, this has resulted in substantial reductions in discretionary funds available to conduct research, ranging from 20 to 25% of discretionary dollars.

For FY09, the Administration proposes an \$84 million or 7.5% decrease in this budget, with elimination of earmark restorations and new terminations/base reductions. The budget does not provide for costs estimated to range from \$30 million to \$50 million related to the separation, transfer, or relocation of approximately 700 employees impacted, and the disposal of property and assets. The budget recommends \$15.1 million to partially finance FY09 pay increases, but these are through the termination and redirection of current research projects.

The decrease in the budget for FY08 coupled with the proposed substantial reductions for FY09 will cripple the ARS and critically undermine the agency's ability to meet its mission. We call on Congress to approve an adequate budget for ARS, including real increases to meet pay costs and meet critical new national research needs.

FY2009 Research Priorities

WE ARE REQUESTING THE ASSISTANCE AND SUPPORT OF YOUR OFFICE TO HELP MEET THE FOLLOWING OBJECTIVES, RANKED IN ORDER OF PRIORITY.

(1) Earmark Restoration of \$308,823 – Cereal Diseases, St. Paul, MN (page 11) The Administration budget calls for elimination of this funding that was added by Congress in FY03-FY05, although it was highly ranked, productive, accountable, and meets Presidential 'Emerging Disease' initiative goals that have been put forward for three fiscal years, including FY09. This funding supports the lead ARS scientist that is working to address the threat posed by African Stem Rust (Pgt-TTKS or isolate Ug99) a highly virulent and aggressive new race that appeared in Africa in 1999. It is only a matter of time before it reaches the US. All commercial barley varieties grown in the US and nearly all wheat varieties are highly susceptible to this race, with potential losses of \$4 billion and \$500 million at the farm gate, for wheat and barley, respectively. Elimination of this funding would result in the termination of this scientist along with supporting personnel and operating expenses.

(2) Funding of \$5 Million for a Cereal Rust Disease Initiative (page 12) Highly virulent and aggressive new races of stem, leaf, and stripe rusts such as African Stem Rust, have appeared in the world, threatening the entire US production of barley, oats, and wheat. A nationally coordinated initiative is needed to support cooperative USDA-ARS and Land-Grant university cereal rust research efforts in twenty nine states where personnel, expertise, and facilities are already established. *Congress was posed to approve funding in both FY07 and FY08 for cereal rust research, but this funding was unrealized in the final bills. The Administration recognizes the need to take action, and the President's FY09 budget proposes funding of \$8.94 million for a Crop and Animal Protection Initiative. However, the Administration's initiative*

would only involve ARS and is funded by redirecting current resources. Increased, not redirected funding, dedicated to cereal rust diseases, is needed so that both ARS and Land-Grant Universities can work together with the necessary resources to address this national research priority.

(3) Regional Small Grains Molecular Genotyping Laboratories (page 16) NBIC expresses its appreciation to Congress for providing funding to establish four Regional Small Grains Molecular Genotyping Laboratories. We are requesting additional funds for these laboratories to enable them to meet their missions.

	<u>FY2009 Request</u>
Fargo, ND (Northern Plains)	\$200,000
Manhattan, KS (Central/South Central)	\$200,000
Pullman, WA (West)	\$400,000
Raleigh, NC (East)	\$200,000

The laboratories are facilitating the application of state of the art genomic and molecular DNA marker technology to small grains improvement, serving wheat, barley and oat breeding programs in up to 36 states. Their workloads have increased dramatically and without additional funding they cannot meet the growing need for their collaborative research and genotyping services.

(4) A \$500,000 Increase in funding for the Cereal Crops Research Unit (CCRU), Madison, WI (page 21) The NBIC thanks Congress for approving funding of \$11.4 million to enable the construction of a new CCRU on the campus of the University of Wisconsin, Madison, which was dedicated in April, 2007. Current base funding is insufficient to meet a substantial increase in operating costs for the new facility (which is 2X larger than the old facility) and maintain programs for eight CCRU scientist positions, two of which are currently vacant due to insufficient funds. Additional resources are needed to operate the facility and ensure that there is enough funding to support the research efforts of currently employed scientists and to allow the two vacated scientist positions to be filled so that the CCRU can effectively meet its mission.

(5) Funding Increase of \$250,000 for Barley Genomics and Germplasm Enhancement at the National Small Grains Germplasm Research Facility, Aberdeen, ID (page 22) *This fits the Administration's \$3.5 million Agriculture Genomics, Germplasm and Collections Initiative.* Funding is requested to provide adequate operating funds to continue conducting leading edge barley variety development, with an emphasis on high yielding malting barleys, winter malting barley, heart-healthy food barleys and specialty feed barley for fish feed. Funding is also required to replace a barley geneticist position at the USDA ARS National Small Grains Germplasm Research Facility Aberdeen, ID that has been vacated due to retirement.

(6) Funding from the President's Proposed Bioenergy and Bioproducts Initiative that will Help Develop Barley as a Feedstock for Biofuels The President's budget proposes \$5.9 million for renewable energy research to more effectively develop and use energy crops and crop residues and to maximize their conversion to biofuels to improve the Nation's energy security, enhance the environment, and benefit the rural economy. Corn alone cannot meet the food, feed, and biofuel needs of the nation. Barley grain and straw offer other biofuel feedstock sources, especially in areas that are not suitable for corn production or are corn deficit areas, and the opportunity for enhanced returns to barley growers. The NBIC asks for increased funding for the following two locations that are working on the utilization of barley as a biofuels feedstock.

Funding Increase of \$670,000 for the Eastern Regional Research Center (ERRC), Wyndmoor, PA (page 23) Funding of \$670,000 is requested for research to enhance the ERRC's underfunded effort to develop improved, cost effective processes to convert barley into biofuels and high valued co-products.

Funding Increase of \$1 Million for the National Center for Agricultural Utilization Research (NCAUR), Peoria, IL (page 26) Grain feedstock resources are limited requiring the US to also look to cereal crop residues as a feedstock for fuel ethanol. The NCAUR research location is at the forefront in research directed at converting cereal crop residues to ethanol, and has initiated research on the utilization of barley straw as a fuel feedstock. Research is needed to overcome the constraints of bioconversion of fibrous barley straw, which is primarily comprised of cellulose and hemicellulose, into ethanol.

(7) Increased Funding for the Human Nutrition Research Center, Beltsville, MD (BHNRC) (page 27) *The President's budget, through redirections, proposes \$12.18 million for an Obesity Prevention Initiative which includes research at the BHNRC.* This location is the site for the very productive Barley Foods Health Benefits research project, which documented that whole grain barley and barley-containing products reduce the risk of coronary heart disease by lowering serum cholesterol. The barley project can now be aligned with research on obesity prevention at this location, specifically to investigate the role of barley and barley fiber consumption on satiety, in prevention and management of obesity, and in the prevention and management of pre-diabetes and diabetes. The NBIC supports increased, not redirected funding for this Initiative.

(8) Maintain funding of \$1,949,084 for the Land Management & Water Conservation Unit, Pullman, WA (page 28) This funding is proposed for elimination in the Administration's FY09 budget. This unit is conducting important sustainable agriculture research that benefits barley and wheat, including the projects "Soil conservation systems for sustainability of pacific northwest agriculture," "Cropping systems and precision land management in dryland pacific northwest," and erosion prediction technology to enhance conservation planning."

USDA COOPERATIVE STATE RESEARCH, EDUCATION & EXTENSION SERVICE (CSREES)

Hatch Act Formula Funds - The Administration FY09 budget would decrease Hatch Act funds by \$57 million for FY09. It again proposes to modify the program by expanding the multi-State research programs to approximately 70 percent from the current base of 25 percent, with 42 percent redirected to nationally, competitively awarded, multi-State/multi-institutional projects in the first year. The remaining multi-State funds would be phased into competitive grants from formula funding over a four year period as existing multi-State projects are completed. **The NBIC opposes the Administration proposed budget reduction and modification.**

NATIONAL RESEARCH INITIATIVE (NRI) The NBIC is supportive of this basic, competitive plant science grant program, which provides valuable supplemental support to barley and other crop scientists. **We support an increase for NRI, but not at the expense of the important directed research programs that we are asking Congress to maintain or provide**

with new funding. The NBIC feels that competitive grant programs must be balanced with adequate support for the USDA-ARS and CSREES directed research programs that are responsive to the immediate needs of the US agricultural economy.

SPECIAL RESEARCH GRANTS

(1) Funding of \$700,000 for the Regional Barley Gene Mapping Project Special Research Grant (page 30) The NBIC thanks Congress for reinstating funding for this important special research grant at \$502,458 in FY08 which funds the very productive project known as the U.S. Barley Genome Project (USBGP). However, this is \$258,000 less than the project's funding of \$760,000 in FY02 and \$198,000 less than the \$700,000 needed and requested for FY09. The long-term goal of the project is to enhance the profitability and sustainability of U.S. barley production and value added end-use by achieving a complete understanding of the gene networks that determine economically important traits. The USBGP is an inter-disciplinary, multi-institutional endeavor comprised of integrated projects conducted in State Experiment Stations and Federal labs throughout the U.S. Through a competitive funding process, projects are selected each year that have the potential to have a major impact on U.S. barley production, that promise to make a significant contribution to genetics, and that have the potential to leverage funding from other agencies.

(2) Funding of \$1,000,000 for the Barley for Rural Development Special Research Grant, equally distributed at \$333,333 each to the University of Idaho, Montana State University, and North Dakota State University (page 32) The NBIC thanks Congress for reinstating funding for this important special research grant at \$547,143 in FY08, which is about \$181,000 less than the project's funding of \$728,000 in FY06 and \$453,000 less than the funding needed and requested for FY09. Research is directed at the continued development of improved malt, feed, cellulosic ethanol and food barley varieties for growers and value added end-users in rural Idaho, Montana, and North Dakota communities. This project addresses the critical need of growers in production agriculture to increase economic yield, enhance domestic and international market access, improve production technologies, better compete with Canadian imports and reduce dependence on government subsidies. Research supported by this project will increase the manufacture and sale of value-added barley products (malt, beer, biofuel, food, livestock) in these states, having a substantial positive impact on their economies, supporting jobs, generating business activity, and federal, state, and local tax revenue.

Additional information on barley and these topics are included in this folder. Your consideration and assistance in meeting these objectives will be greatly appreciated.

Sincerely,

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Chair

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