

Agriculture

The following appropriations for Oregon are being considered for inclusion in the Agriculture, Rural Development, Food and Drug Administration and Related Agencies appropriations bill for fiscal year 2011.

Northeast Oregon Grown Meat Processing Development Plan-\$125,000

Oregon Cattlemen's Association, Wallowa, Union, and Baker counties, OR

In Eastern Oregon, as in much of the United States, access to U.S.D.A. inspected slaughter and processing facilities is limited and drastically needed. Due to the need to transport animals long distances for slaughter, producers must incur exorbitant costs, there is increased ecological impact, and animal stress is exacerbated.

The project will support a comprehensive business and marketing plan that assesses upgrading regional custom-exempt slaughter and processing plants to USDA inspected, building additional brick and mortar facilities, and/or developing a mobile slaughter unit. This business and marketing plan will take the approach of addressing the current needs from a whole food system perspective and will seek involvement from all stakeholders including producers, processors, regulators, and the diversity of purchasers and consumers. This business and marketing plan will result in recommendations on the infrastructure needed to develop a profitable and sustainable solution for Eastern Oregon that could be replicated throughout the region and country.

STEEP III Water Quality in the Northwest-\$1,000,000

Oregon State University, Eastern Oregon and the Willamette Valley, Eastern Washington and Idaho

The Pacific Northwest (PNW) produces 13 percent of the nation's wheat supply and 80 percent of its soft white wheat for export. The PNW is a unique agricultural area with 75 percent of annual precipitation falling in winter. Soils store this moisture enabling the region to produce the highest dryland winter wheat yields in the U.S. Its silt-based soils are nevertheless subject to water and wind erosion with conventional tillage often leaving the soil surface bare. STEEP researches cropping techniques, including direct-seeding, residue management, weed control, and disease and nutrient management, in cooperation with local extension programs, to facilitate successful conservation farming techniques.

Biosolids Compost Facility - \$3,700,000

City of Florence, OR

The city has a suitable site for composting operations at the north end of the airport. When we consider all of our costs for biosolids production and disposal, the City currently expends \$320,000 annually on power, trucking costs, polymer, landfill tipping fees, and maintenance and operations. This is funding that is spent on a by-product, that if brought to a Class A level can be kept in the community and used as a soil amendment instead of taking up valuable landfill space. The Governor's mandate for 25-percent green energy and the new power rates to sell green energy creates some incredible incentives for developing green energy projects.

Alsea County Service District Storm Water Project - \$270,000

Benton County, OR

Benton County will use funds to replace inadequate and damaged storm drainage pipes, add new pipes, and install catchbasins to collect water. Planning and final design work is included in the estimated cost.

The Alsea County Service District operates water and wastewater systems in this unincorporated community. Storm water drainage systems are inadequate to handle high winter flows causing standing water, damage to roads and alleys, and infiltration into the sanitary sewer system. To alleviate flooding, some property owners illegally discharge storm water into the sewer system causing overloading of the treatment plant.

Benton County Fairgrounds Waste Water Collection and Drainage Project - \$240,000

Benton County, OR

The design is a green technology solution to treat surface animal wastes through a manmade wetland. Project will intercept and manage animal waste to bring the site into compliance with Oregon Department of Environmental Quality (DEQ) regulations. The end product will allow discharge into a fish bearing stream. Components include construction of a wastewater drainage collection, storage and field application system to properly manage runoff from animal wastes at the fairgrounds. Project will include underground drainage pipes directed to two collection sumps. The collection sumps will transfer wastewater into a large storage and supply tank, which will then be pumped onto constructed wetlands. The surface areas where animals are handled outside of the buildings will be resurfaced to direct wastewater runoff into the collection drains and sumps. The animal solid waste storage building will be relocated next to the wastewater collection and storage tank.

Small Fruits Initiative - Plant Improvement - \$1,350,000

Northwest Center for Small Fruits Research – Corvallis, OR

Funds will be used for small fruit pathology, and to research post and pre harvest plant pathology to address disease and pest issues including botrytis, alternaria and fruit flies to increase shelf life and marketability. Funding will support an ARS research scientist, one full time technician, a greenhouse, office and laboratory space, and \$100,000 for specific cooperative agreement for a technical support position. Additionally, the project includes a site feasibility study and Phase 1 Design for Additional or New Research Facilities. \$350,000 will be used for a full assessment, strategic evaluation and functional analysis of current facilities and infrastructure. An additional \$500,000 will be used for the competitive grants program peer reviewed small fruits research projects.

Bioremediation of Munitions Residues - \$600,000

Oregon State University, Corvallis, OR

There are approximately 30 to 40 million acres of U.S. military ranges and bases contaminated with munitions, including TNT, RDX, and HMX, that the EPA estimates will cost more than \$30 billion to clean-up. Agricultural-based bioremediation technologies are a potentially low-cost approach to munitions clean-up because they would eliminate the need to excavate, transport and then process large volumes of contaminated soil. If effective, clean-up costs could be reduced by 90 percent, saving the federal government billions of dollars. This project couples specially bred grasses with ruminants (grazing animals such as sheep) to investigate whether grasses can absorb munitions into their foliage to then be detoxified in the rumen of grazing animals by anaerobic

bacteria without harmful effects to the host. Funds requested for this project would be used to study the absorption potential of three grass species – tall fescue, perennial ryegrass, and orchard grass – and continue efforts to develop an economically and environmentally-friendly method of bioremediating munitions residues using plants and animals.

Endophyte Toxicosis Research - \$1,400,000

Oregon State University - Corvallis, OR

This project seeks to alleviate the toxic effects of fungal endophyte-infected grasses fed to cattle and other livestock while maintaining and improving the grass's ability to persist on poor soils during drought. Endophyte toxicosis costs \$1 billion in losses to U.S. livestock producers annually. Exports of U.S. grass products have also been greatly restricted due to the presence of high concentrations of endophyte toxins in U.S. products. This project, conducted jointly by Booneville ARS, Oregon State University, University of Arkansas and University of Missouri, seeks to solve the toxic endophyte dilemma through the development of new varieties of pasture grass that are nontoxic to livestock and by developing new ways to detoxify commonly infected grasses such as tall fescue and perennial ryegrass. Researchers will also investigate how animal health and performance are affected by endophyte toxins.

Grass Seed Cropping - \$500,000

Oregon State University, Grass seed growing counties in Oregon, Washington and Idaho

Over 90 percent of U.S. cool-season forage and turfgrass seed is produced in the Pacific Northwest. This program supports sustainable grass seed cropping practices. The industry faces environmental and economic challenges including pressure to phase out open-field burning; alleviation of smoke and chemical trespass from crop production areas; lack of integrated cropping systems; protection of genetic diversity and identification of germplasm diversity; alternate production strategies; and better utilization of post seed harvest residues. There is growing interest in using grasses in pasture-based livestock feeding systems, exploring the effects of endophytes in grasses and using grasses to provide ecosystem services.

Meadowfoam Research - \$275,000

Oregon State University, Willamette Valley counties

The goal of this research program is to increase the supply of renewable industrial oils for U.S. manufacturers through use of the crop plant meadowfoam. Meadowfoam is a newer crop in the Pacific Northwest (PNW) that produces oil with unique chemical properties that are utilized by manufacturers of personal care products and are being explored for use as a fuel additive, as a component of vehicle lubricants and in pharmaceutical products. Meadowfoam meal, a by-product of oil extraction, also has unique properties and research into use of meal and meal extracts as biological pesticides and plant growth enhancing agents is underway. These materials may be of use in organic crop production systems. This project supports research in breeding and management practices for this alternative crop in the PNW as well as investigation into potential uses of meal.

Molluscan Shellfish Research - \$600,000

Oregon State University, Corvallis and Newport

The Molluscan Broodstock Program (MBP) seeks to improve desirable traits of West Coast oysters by means of a selective breeding program. The West Coast oyster industry employs

about 3,000 people in rural coastal communities with harvests worth an estimated \$84 million per year. The primary trait of interest for industry is increased yield but recent severe difficulties in rearing larvae in commercial hatcheries have emphasized larval survival as an important trait. The causes of these hatchery problems have not been determined but are correlated with upwelling deep, acidic seawater that may be associated with global warming. Selected MBP broodstock is used by commercial hatcheries for large-scale seed production with about 400 million larvae produced from MBP broodstock last year by Oregon's Whiskey Creek Hatchery.

Multi-Commodity Research - \$347,000

Oregon State University - Portland, OR

This project enhances competitiveness and expands the economic value-added component in Oregon agricultural products through research and outreach in food processing, product development, business strategy, marketing, and consumer testing. There is growing consumer demand for high quality, value-added products from the Pacific Northwest that can compete effectively in the marketplace. Value-added processing and marketing of agricultural-based products offer potential for expansion, economic growth and job creation. Research will support food processing and product development, investigate consumer perceptions of product quality and value, and evaluate marketing and food industry strategies suitable to the small and medium sized firms of the Northwest.

Organic Cropping - \$400,000

Oregon State University, Oregon and Pacific Northwest

Strong agricultural infrastructure and a unique climate position Oregon agriculture to continue to grow dramatically in market share of organic dairy and meat, cereals, tree fruits, specialty seed, berry crops, wine grapes, and processed and fresh market vegetables. Oregon's location on the 45th parallel, mild winters, dry summers, access to irrigation water, and the presence of experienced and successful organic farmers position Oregon to become a world leader in organic production. Research directed at problems facing these commodities will enhance Oregon agriculture's competitiveness in the marketplace. Projects aim to increase the efficiency of Oregon's organic farmers, enabling them to improve profitability, meet a larger portion of the demand for organic products, and be more competitive in the international market place, while protecting and enhancing Oregon's natural resources.

Potato Research - \$1,800,000

Oregon State University, Potato producing counties in Oregon, Washington and Idaho

This multi-state project works to develop and commercialize new potato varieties that will directly benefit all segments of the Northwest potato industry and indirectly benefit all U.S. producing regions. The funds are used to develop and identify varieties with high yield, improved processing quality, genetic resistance to major pests and diseases, higher levels of resistance to stresses, increased nutrient use efficiency, improved human nutritional value, and high tuber quality. An additional environmental benefit comes with reduced use of pesticides, water, and fertilizers, which are typical by-products of improved varieties.

Regional Barley Gene Mapping - \$800,000

Oregon State University, Cereal growing counties in Oregon and Minnesota, North Dakota, Wisconsin and Washington states

Researchers from Oregon, Minnesota, North Dakota, Washington, and Wisconsin developed the Enhancing Barley Through Genomics (EBTG) initiative to stimulate economic activity and enhance human health and welfare through improved barley varieties. The EBTG is a coordinated application of genomics tools to four research areas that have the greatest potential to increase barley production – winter hardiness, drought tolerance, disease resistance, and quality. A vigorous public sector research community, in cooperation with the private sector, has developed a robust set of genomics and molecular breeding tools. These discoveries in basic biology will be used in practical applications to develop varieties more tolerant of the stresses caused by disease, insects, and climate change. This will lead to greater productivity with fewer inputs and the superior quality needed to compete in domestic and world markets.

Small Fruit Research - \$500,000

Oregon State University, Hood River, North Willamette, Coos Bay

The Northwest Center for Small Fruits Research (NCSFR) provides competitive grants to enhance profitability and sustainability for a number of crops, including blueberries, strawberries, raspberries, blackberries, cranberries, table grapes, wine grapes, huckleberries, gooseberries, and black currants. Research priorities for each small fruit crop are established by the combined efforts of industry representatives and scientists. Research priorities are based on constraints on production and processing in the areas of breeding, integrated pest management, physiology, enology, small fruit horticulture, and genetics. The priority setting process ensures an effective means to respond to current challenges within the small fruits industries.

Wood Utilization Research - \$7,000,000

Oregon State University - Corvallis, OR

The Wood Utilization Research (WUR) program is a research and outreach program that initiates creative and innovative science, technology and advanced business practices that: 1) enhance the domestic and global competitiveness of the U.S. wood products industry; 2) foster sustainable and environmentally acceptable product manufacturing and forest operations; and 3) lead to greater and more efficient use of renewable wood-based materials that aid America's energy independence and reduce greenhouse gas emissions. WUR is a multistate program with partner universities in Oregon, Mississippi, Michigan, Maine, North Carolina, Louisiana, Minnesota, Tennessee, Montana, Washington, Idaho, Alaska, and West Virginia. The program focuses on research endeavors that cannot be supported by a fragmented industry largely made up of small-to-medium sized enterprises that lack research capacity. OSU researchers focus problems and opportunities specific to Oregon.

Spalding Avenue Sewage Pump Station - \$920,000

City of Grants Pass, OR

Funds for this project will be spent for final design and engineering of the sewage pump station in the Spalding Industrial Park, located on the eastern side of Grants Pass. Due to existing sewer locations in the area, this 65 acre tract, site of the former Spalding & Sons sawmill, has no access to sewer service, preventing development in the area with much needed industrial jobs. The project also includes acquisition of needed land to site the facility, construction of the pump station, and installation of a force main to connect the station to existing gravity sewer mains. With this installed, the City will be able to actively recruit larger industries to the area, helping to stimulate the local economy and create jobs.

City of Riddle Wastewater Plant Upgrade - 1,000,000

City of Riddle, OR

The wastewater treatment plant serving the City of Riddle is over 30 years old. The plant has significant issues 1) failing equipment, 2) insufficient hydraulic capacity and 3) increasingly stringent discharge requirements. Inadequate hydraulic capacity has been responsible for sewage overflows at the plant putting the City in noncompliance with the Oregon Department of Environmental Quality. The City recently completed construction of improvements to its wastewater collection system and must now address the needs of its treatment plant. The low-moderate income rate of the citizens of Riddle is 65%, well above Douglas County average of 40%. Without significant help, City residents will be faced with monthly sewer bills in excess of \$100. This grant will provide for lower wastewater rates in a low-income community.

Western Wheat Quality Laboratory- \$1,050,000

Agricultural Research Service, Pullman, WA

The USDA-ARS Western Wheat Quality Laboratory in Pullman, WA, supports the entire wheat industry, including breeders, growers, millers, bakers, and exporters. An erosion of funds, staffing, and antiquated equipment jeopardizes research responsible for processing and product quality attributes of wheat grown in the PNW; over 300 million bushels each year, worth \$1.5 billion. The Pullman USDA-ARS Regional Genotyping Laboratory conducts research to reduce threat of virulent rust diseases and supports variety development efforts throughout the west. This ARS laboratory is critically underfunded and unable to meet the rapidly growing demand for marker information needed to develop disease resistant wheat varieties.

Relocating Seaside School District out of the tsunami zone - \$10,000,000

Seaside School District - Seaside, OR

The project proposes to relocate schools within the Seaside School District out of the Tsunami Zone of the Pacific Ocean. Funds would be spent on site selection, environmental impact statements, and will begin construction for two elementary schools, one middle school and one high school.

ARS Office Expansion - \$9,000,000

EOARC/ARS, Burns, OR and in research field studies, Burns, OR

This will be the Burns site's section of a 10 station coordinated, collaborative, and cooperative effort based on long-term regionally integrated research. Multidisciplinary basic and applied research is needed to meet the current and future challenges concerning a highly diverse set of ecosystems throughout the Great Basin.

Harney Basin Riparian Areas, Collaboration, Facilitation - \$250,000

High Desert Partnership - Burns, OR

This project will build upon the High Desert Partnership's existing Silvies River Flood plain initiative. The project will use available research, scientific reports and general information regarding the ecosystems of riparian areas (Silvies and Blitzen rivers and other riparian zones) in Harney Basin. It will look at the importance of these areas for agricultural production, wildlife and other uses while developing a bases of shared science between the diverse interests. It will also include facilitation of the diverse interests through forums that will assist both private and

public land managers in developing sustainable long term strategies based on shared science. The project will also develop educational curriculum as a means to broaden the acceptance of the shared science by the general public.

**Hubbard Creek Impoundment Improvement Project, Port Orford - \$2,000,000
City of Port Orford, OR**

This project will ensure that the City has sufficient water to treat for the community needs. At present, the impoundment is too small to meet the needs of the community during the dry summer months. The creek has almost dried up several different years. The City of Port Orford is presently using all of the stream flow to provide water to the City. This water comes from the impoundment and goes to the treatment plant for treatment before being delivered to the community water users. This project will enlarge the impoundment, which will allow for an adequate supply of water. Having adequate water will allow for growth, and additional business to locate in the City of Port Orford.

**Hubbard Creek Water Distribution Improvement Project, Port Orford - \$10,000,000
City of Port Orford, OR**

This project will replace deteriorated waterlines and pump stations within the City. The City of Port Orford has old waterlines, some of which were installed in the 1920's and 1930's, which are leaking and causing excessive repair costs, and loss of treated water. Presently, the City is losing nearly 60% of our treated water to leaks. The City has had leak detection companies look for leaks, as well as its own public works crew looking for leaks. The entire system is well beyond its design life, and the deterioration is systemic, and widespread. It is not a result of a lack of maintenance—it is just plain worn out. The City has capacity issues in some locations, which will be addressed by the pump station upgrades. Most of the lines are cement asbestos (AC) pipe. This pipe deteriorates over time and starts to leak. The City believes (along with their engineer) that the leakage is probably a lot of small ones that are difficult to detect, rather than large leaks that would have been located and repaired. None of the system is still within design lifetime.

**Energy & Climate Change Research/Technical Assistance for Oregon Agriculture -
\$1,175,000**

Oregon Department of Agriculture – Salem, OR

Together, this package of components will help Oregon agriculture producers adapt to changing economic conditions, and to prepare for and mitigate climate change impacts, including increasing drought, pests and disease. Water is key to long-term viability of agriculture and our world's food and material needs. Rotational oilseed crops may be used to produce renewable energy. Oregonians, and our nation's taxpayers, have a vital interest in maintaining Oregon's diverse and enviable farmscape, local food structure, sustainability efforts, and economic viability. Oregon's producers can also reduce their contributions to greenhouse gas emissions, and if those reductions can be measured, growers may be eligible for tax credits, cost-share or other market-based programs to the benefit of the environment and grower's bottom-line. Job creation: The research and technical assistance funds requested as part of this proposal will create approximately 8 research and technical jobs in the short term. Economic Impact: In the long term, the research and assistance funded through this collective effort will protect Oregon's

agricultural economy and minimize the threats associated with changing climate conditions and fluctuations in energy costs. There is no capital investment/buildings with these funds; they are primarily tied to salaries for research, technical assistance, monitoring invasives, and related travel, supplies, etc.

Potato Breeding Research - \$2,800,000

Oregon Potato Commission - Portland, OR

The project provides funding for potato breeding research projects which are developed through direct grower input and coordination of research planning and execution by multistate breeding programs. The program focuses on national breeding priorities that will directly improve the efficiency of potato production and increase the utility and value of potatoes and potato products to consumers. The goal is to improve production and quality of potatoes for processing and fresh market. The researchers have developed potato varieties that fill specific niches in the potato industry where the new varieties have reduced or overcome production, storage, processing or marketing problems. The program effectively coordinates the activities of individual state breeding programs. This eliminates any waste or redundancies and focuses research on grower identified priorities. Most of the potato growers in Oregon have taken advantage of new potato varieties developed by this program.