

FY2011 Agriculture Appropriations Requests

(listed in alphabetical order)

Bioremediation Research – Oregon State University - \$600,000

Researchers are investigating an agricultural solution to the multi-billion dollar problem of soil contamination by munitions residues including TNT, RDX, and HMX. OSU researchers are on a path to develop an economically and environmentally-friendly method of bioremediating these munitions residues using plants and animals. This agricultural biotech-based solution couples specially bred grasses with ruminants (grazing animals such as sheep). Select grasses absorb the munitions into the foliage and those grasses are grazed by ruminants. The munitions residues are detoxified in the rumen of the animal by anaerobic bacteria into nontoxic compounds with no harmful effects to the host.

Oregon State University
600 Kerr Administration
Corvallis, OR 97333

Chemeketa Institute for Sustainable Horticulture (CISH) - \$750,000

CISH supports Oregon's agriculture, horticulture, viticulture, and enology industries, as well as those who use plants to address environmental needs, such as civil engineers, landscape architects, foresters, and growers of specialty plants. These industries continue to expand and demand more highly educated employees; at the same time, they also wish to respond to increasing consumer interest in environmentally sustainable practices.

Chemeketa Community College
4000 Lancaster Dr. NE
Salem, OR 97309

Endophyte Toxicosis Research – Oregon State University - \$1,400,000

The goal of endophyte toxicosis research is 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. Some of the alkaloids in endophyte fungus promote the hardiness of infected grasses, however, others have harmful effects on grazing animals. Endophyte toxicosis costs \$1 billion in losses to the 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.

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Enhancing Barley Through Genomics – Oregon State University - \$800,000

The purpose of this project is to stimulate economic activity and improve human health and welfare by using the tools of genomics to develop improved barley varieties. These varieties will be more tolerant of stresses caused by diseases, insects, and climate change. Enhanced tolerance will lead to greater productivity with fewer inputs. Varieties will be developed that have distinct end uses. For example,

superior malting quality will net a premium for barley growers and provide more jobs in the US malting and brewing industries. Varieties with higher levels of beta glucan will be a key component of dietary strategies to reduce obesity. Locally-grown barley feeds and forages will provide new options for decentralized livestock and dairy industries.

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Grass Seed Cropping – Oregon State University - \$500,000

Over 90% of the United States' cool-season forage and turfgrass seed is produced in the Pacific Northwest. Currently, the grass seed industry faces some critical environmental and economic challenges including public pressure to phase out open-field burning; alleviation of smoke, dust, and chemical trespass from crop production areas; lack of integrated cropping systems; protection of genetic diversity and identification of germplasm diversity and identification of germplasm resources for alternate production strategies; and better utilization of post seed harvest residues. Cooperating in the effort are research and extension faculty from Washington, Idaho, and Oregon, and scientists from the USDA-ARS National Forage Seed Production Research Center.

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Meadowfoam Research – Oregon State University - \$275,000

The goal of this research program is to increase the supply of renewable industrial oils for United States manufacturers through use of the crop plant meadowfoam. 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. Presently, the United States is the sole supplier of this oil and meal.

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Corvallis, OR 97333

Molluscan Broodstock Research – Oregon State University - \$600,000

The oyster industry on the West Coast of the US, mainly focuses on production of the Pacific oyster. The industry was established over a century ago and provides income and jobs to many coastal communities, with an overall dock-side production valued at about \$70 million per year. In contrast to many other U.S. agricultural commodities, there has been no long-term, funded research program to select and manage Pacific oyster broodstock for enhanced production. With the emergence of ocean acidification, research for broodstock is as important as ever as larvae production diminished greatly over the past few years.

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Corvallis, OR 97333

Multi-Commodity Research – Oregon State University - \$347,000

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. The State of Oregon has a high percentage of specialty crops that have been traditionally sold into commodity markets as undifferentiated product. Due to pressures from globalization, it is increasingly difficult to compete in commodity markets, because of increased production and energy costs. There is also a growing consumer demand for high quality, value-added products from the Pacific Northwest that can compete effectively in the marketplace.

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Northwest Center for Small Fruit Research – Oregon State University - \$500,000

The Northwest Center for Small Fruits Research (NCSFR) provides competitive grants to enhance profitability and sustainability for a number of crops. This includes blueberries, strawberries, raspberries, blackberries, cranberries, table grapes, wine grapes, huckleberries, gooseberries, and black currants. The Pacific Northwest is the largest blueberry production area in the world and demand has risen dramatically in recent years both in domestic and international markets. The importance of berry and grape production has long been recognized in the Pacific Northwest where these high value specialty crops now make up a large component of agricultural product sales.

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Organic Cropping Research – Oregon State University - \$400,000

Oregon's growing organic agriculture industry has developed strong links between producers and consumers and provides important economic benefits to the citizens of the state. In 2006, Oregon's 357 certified organic farms generated more than \$52.1 million in organic products from approximately 59,200 certified acres. Certifiers issued 142 processor and 25 handler certificates, a significant increase from 65 in 2005, resulting in over \$76.3 million in trade. Certified organic acreage increased 41% to 83,280 acres in 2007. Oregon's strong agricultural infrastructure and unique climate make Oregon's agriculture uniquely positioned to continue to grow dramatically in its market share of organic dairy and meat, tree fruits, specialty seed, berry crops, wine grapes, and processed and fresh market vegetables.

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Small Fruits Initiative (Northwest Center for Small Fruits Research)

Oregon State University - \$1,350,000

- **Small Fruit Pathology Program.** The Pacific Northwest is a major producer of small fruit crops. These crops are susceptible to pre- and post-harvest infection by fungal and bacterial diseases significantly impacting fruit quality of all crops. Funding will be used for: New ARS small fruit pathologist; Cooperative research between ARS and OSU, WSU, or UI.
- **Site Feasibility Study and Design for Additional or New Research Facilities.** Current facilities are over crowded, with some needing replacement and other's in need of an upgrade. The entire research effort in the Unit is focused on Specialty Crops. The feasibility study is needed to determine the best approach to move forward, either upgrade and expand existing facilities or to build a new research facility.
- **Competitive Research Grants.** The competitive grants program funds peer reviewed small fruits research projects that foster collaboration between research groups working to enhance profitability and sustainability of the small fruits industry.

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STEEP – Water Quality in Northwest – Oregon State University - \$1,000,000

The STEEP project strives to provide sustainable, cereal-based crop production systems for dryland farms in eastern Oregon and Washington and northern Idaho and the cereal component in irrigated cropping systems technologies across the PNW. Conservation practice information obtained through this work is transferable to other parts of the U.S. and world. The focus of this research is moving toward long-term cropping system assessment including issues such as carbon sequestration and biofuels production potential.

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Wood Utilization Research – Oregon State University - \$7,000,000

The WUR Program is a multistate research and outreach program that initiates creative and innovative science, technology and advanced business practices in the wood products industry. Oregon State University is one of the schools that is part of the WUR and focuses on problems and opportunities in Oregon, one of the world centers of forestry and wood product manufacturing. The WUR:

- Enhances the domestic and global competitiveness of the US wood products industry,
- Fosters sustainable and environmentally acceptable product manufacturing and forest operations, and
- Leads to greater and more efficient use of renewable wood-based materials.

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