

Idaho Department of Agriculture

SPECIALTY CROP BLOCK GRANTS FUND RESEARCH AND TECHNOLOGY PROJECTS IN IDAHO



The Idaho State Department of Agriculture annually awards projects with funding provided by the United States Department of Agriculture's Specialty Crop Block Grant Program. Funds are provided for projects that enhance the competitiveness of specialty crops in Idaho. Specialty crops include fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops. Projects may include pest and disease control, enhancing food safety, improving production efficiency and sustainability, developing new and

improved seed varieties, market development, or developing good agricultural, handling or manufacturing practices.

Over the past few years, the ISDA has funded **nearly \$2 million** specifically for research and technology projects. The announcement for 2015 funded projects will be coming out soon.

For info: www.agri.idaho.gov under Marketing and Development, Specialty Crop Grant.

Sample Projects

Idaho Apple Commission— Maximizing Production and Fruit Quality and Optimizing Mineral Nutrients in Fuji Apple

An apple orchard with a traditional style of training and planting has 175-200 trees per acre. Preliminary experiments, selection of suitable dwarf rootstocks and new tree spacing, produced approximately 50% more apples per acre in 2012 and 2013 than in traditional orchards. These intensive orchard systems are expected to reduce water consumption while producing much higher production per acre. Even higher production levels are expected when trees are fully mature. Producers in Idaho have adopted the new trellis system and are planting 600-800 trees per acre compared to 175-200 trees before substantially increasing yield per acre.



Northwest Nazarene University— Development of a Crop Monitoring and Assessment Platform in Specialty Crops in Idaho

Researchers developed a cost-effective crop monitoring and assessment platform using remote sensing data (multispectral images) for apples and grapevines. The project used image processing techniques to process and analyze the multispectral data and to correlate the multispectral data with the water stress, nitrogen content, and disease condition of the field. The project also resulted in the development of an image processing algorithm that can process and analyze the acquired images.

Research and Technology Projects

Year	Applicant	Project	Funding
2014	Boise State University	Sunnyslope Soil Analysis	\$72,420
2014	Idaho Apple Commission	The Impact of Tree Architecture and Girdling at Full Maturity in a Modern Super High Density Orchard on Yield Efficiency, Fruit Quality, Mineral Partitioning and Post-harvest Physiology of Apples in Idaho	\$113,124
2014	Idaho Bean Commission	Developing Season-long Integrated Weed Control Systems	\$56,685
2014	Idaho Hop Commission	Evaluating Experimental Hop Selections in Idaho	\$68,250
2014	Idaho Potato Commission	Identification of Potato Genes Conferring Resistance to NTN & N-Wilga Recombinants of Potato Virus	\$149,420
2014	University of Idaho	Identification and Exploitation of Resistance to Zebra Chip Disease in Potato	\$95,090
2014	USDA-ARS	Deciphering the Effects of Grapevine Virus on Idaho Grape/Wine Quality	\$64,940
2014	USDA-ARS	Method Development for Automated, Real-time Monitoring of Wine Grape Vine Water Stress for Use in Wireless Sensor-based Irrigation Networks	\$109,502
2014	Boise State University	Protocol to Improve the Efficiency and Quality of Fried Potato Products	\$155,735
2014	University of Idaho	Studying Adaptation, Introduction, and Quality of Alternative Fruits to Enhance Profitability of Small Businesses and Public Health in Idaho	\$103,420
2013	Idaho Apple Commission	Search for Suitable Rootstocks to Improve Yield Efficiency, Precocity, Mineral Nutrient Uptake and Fruit Quality of Apples in Idaho	\$106,491
2013	Idaho Bean Commission	Slow Release Nitrogen Trials for Dry Bean Production	\$13,397
2013	Idaho Potato Commission	Monitoring Potato Psyllid Biotypes as well as Off-season and Overwintering Distribution and Abundance of Potato Psyllids and Candidatus Liberibacter Solanacearum in Idaho	\$157,363
2013	University of Idaho	Eradication of the Necrotic Isolates of PVY from Idaho Potatoes	\$155,442
2013	USDA-ARS	Impact of Grapevine Viruses on Idaho Grape Quality	\$93,960
2012	Idaho Hop Commission	Developing an Economic Threshold for Twospotted Spider Mites in Hop	
2012	Boise State University	Preparing Idaho Viticulture for Future Extreme Temperature Events - Wine Grapes Need for and Tolerance to Cold	\$22,994
2012	Idaho Potato Commission	Novel Control Strategy for Pale Cycst Nematode, Lesion Nematode and Fungal Pathogens of Potato	\$100,876
2012	Northwest Nazarene University	Development of a Crop Monitoring and Assessment Platform for Specialty Crops in Idaho	\$84,236
2012	University of Idaho	Monitoring Potato Psyllids and Zebra Chip in Idaho and Determining Effects of Disease on Tubers During Storage	\$108,862
2011	USDA-ARS	Preparing Viticulture for Climate Change: Cold hardiness of Grape Cultivars in Response to Weather Events During Dormancy	\$62,470
2011	Idaho Apple Commission	Maximizing Production & Fruit Quality & Optimizing Mineral Nutrients in Fuji	\$104,388
2011	Idaho Bean Commission	Development of Virus-resitant Yellow Bean Seed for Domestic Sale and Export to Mexico	\$121,925
2011	Idaho Potato Commission	Development and Sustainable Production of New Potato Varieties for Idaho	\$255,940
2011	University of Idaho	Eradication of Necrotic Strains for Potato Virus Y In Idaho	\$151,382
2010	Dr. Ron Bitner	Development of a Commercial Nesting Block for the Blue Orchard Bee, Osmi Lignaria Say	\$43,070
2010	Northwest Coalition for Alternatives to Pesticide	Biological Control for Disease and Virus Management in Beans and Potatoes	\$71,000
2010	Rocky Fence Vineyard	Increasing Berry Size of Organic Table Grapes	\$17,019
2010	University of Idaho	Improved Tolerance of Drought, Salinity and Disease in Idaho Potatoes	\$96,436
2010	University of Idaho	Evaluation of Adaptability, Bloom and Harvest Dates, Yield, Fruit Quality, Mineral Nutrition and Introduction of Modern Cultivars to Increase Global Competitiveness of Idaho Stone Fruit	\$72,778
2010	West Foothills TIC	Dry Farmed Vineyards in the Boise Front Foothills	\$22,930
2009	USDA-ARS	Adaptation of Lesser-known Wine Grape Cultivars to Climate Features of the Snake River Valley AVA	\$58,307
2009	Idaho Bean Commission	Development of Virus-resistant Yellow Bean Seed for Domestic Sale and Export to Mexico	\$122,002
2009	Idaho Potato Commission	Sustainable Production of New Varieties from the Pacific Northwest Potato Variety Development	\$167,080
2009	Snake River Table Grape Growers Assn	Variety Selection and Evaluation of Growth Regulators, Canopy Design, and Crop Load to Improve Fruit Quality in Idaho Table Grape for the Global Market	\$73,691
2009	University of Idaho	Potato Virus Y Control in Idaho	\$75,000
2009	Idaho Apple Commission	Increasing Fruit Quality and Global Competitiveness of Idaho Apple Through Efficient Use of Water, Nutrition and Orchard Design	\$93,000
			\$1,925,386