



AGRICULTURAL
RESEARCH FOUNDATION

History and Highlights of the Agricultural Research Foundation Competitive Grants Program



1978-2019

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Agricultural Research Foundation Competitive Grants Program -- History and Highlights

The Agricultural Research Foundation (ARF) was established in 1934 to facilitate and encourage research in all branches of agriculture and related fields for the benefit of the agricultural industry and to collaborate and work in close partnership with the Agricultural Experiment Station to accomplish these goals. Throughout its long history, it has provided grants for specific projects beginning with an \$840 grant from the Hood River Apple Growers Association to study beneficial use of by-products from apples and pears. Initial year entries from the ARF accounting ledger for this project are shown below.

4 *Hood River Apple Growers Assn.
(By-products of Apples and Pears)*

<i>Date</i>	<i>Item</i>	<i>Check no.</i>	<i>Receipts</i>	<i>Disbursements</i>	<i>Balance</i>
<i>1934</i>					
<i>Oct. 30</i>	<i>Hood River Apple Growers</i>		<i>840.00</i>		
<i>Dec. 5</i>	<i>Myron Powers - wages</i>	<i>(W) 3</i>		<i>31.50</i>	<i>808.50</i>
<i>Dec. 6</i>	<i>E. H. Wiegand - travel</i>	<i>(T) 4</i>		<i>16.75</i>	<i>791.75</i>
<i>6</i>	<i>American Copper Works - supplies</i>	<i>(C) 6</i>		<i>38.00</i>	<i>753.75</i>
<i>6</i>	<i>Corvallis B.T. (1/2 of 30.25) stationary</i>	<i>(C) 8</i>		<i>15.13</i>	<i>738.62</i>
<i>6</i>	<i>Supt. of Bldgs. OSC. - express</i>	<i>(P) 9</i>		<i>50</i>	<i>738.12</i>
<i>7</i>	<i>Shell Oil Co. - gas & oil</i>	<i>(T) 10</i>		<i>7.13</i>	<i>730.99</i>
<i>6</i>	<i>Crane Co. - supplies</i>	<i>(C) 11</i>		<i>2.06</i>	<i>728.93</i>
<i>13</i>	<i>R. M. Kerr - legal services (1/2 48.40)</i>	<i>(S) 14</i>		<i>24.20</i>	<i>704.73</i>
<i>18</i>	<i>Pac. Tel. & Tel. - telephone</i>	<i>(P) 15</i>		<i>3.25</i>	<i>701.48</i>

Other first year projects included a study on cherry brining funded by The Dalles Cooperative Growers, Inc. and another on use of sulfur in agriculture funded by the Texas Gulf Sulfur Company. The objective of the latter study was to develop and test a portable burner to transform lump sulfur into sulfur fumes that could be infused into irrigation water. Work was done by Dr. Wilbur Powers in both Corvallis and Vale, Oregon. This technique is still used today in organic blueberry and other acid-loving crop production in eastern Oregon and Washington.

The beginning of the Competitive Grants Program is also not completely clear, but in the history document published by Floyd and Foote in 1984, an item appears in the minutes of the 1978 meeting, "Following the recommendations of the directors, Foote had circulated a list of

requests for projects, part of a plan to support small research projects. Members of the Foundation Board rated the top six, which were to be supported with amounts ranging from \$1,500 to \$6,000, for a total of \$18,600.” This is the first mention of a program whereby proposals are requested and Board members select those to be supported from ARF General Funds. Therefore, the beginning of the Competitive Grants Program is assumed to be 1978.

Name of the Committee

In the beginning, the research proposals were apparently rated by the entire Board or perhaps a few volunteers. One year, a few members of the Board were joined by representatives from the Agricultural Experiment Station to rate the proposals and provide a recommendation to the full Board for those to be funded. The record is not clear, but sometime in the 1980’s, a standing committee, the “Projects Committee,” was established. This name was used for many years in the ARF Annual Report, but in the minutes of Board meetings, “Venture Capital” became the most common name. In 2006, the Committee suggested that the name be changed to more accurately describe the activities of the Committee. The Board agreed to change it to the Competitive Grants Committee, but the name in the Annual Report continued to be the Projects Committee until this was finally noticed and changed in the 2011-2012 Report.

Number of grants and dollars allocated

The initial grants set the stage for supporting research in a range of agricultural areas. The initial six projects included bulk cheese starters, *Fasciola hepatica* antigens, mechanisms of resistance in wheat cultivars, response of forages to grazing systems in foothill rangeland, possible mechanisms of chalk brood disease resistance in the leaf cutting bee, and clover products. The following year allocation was more extensive with ten funded proposals from seven departments for a total of \$38,458. The table below shows the increasing number of proposals submitted and the amount of funds provided to those funded. Table 1 is incomplete as details were not always provided in the minutes of the Board meetings or elsewhere. The funds available for the Competitive Grants varied from year-to-year as rate of return on Foundation investments rose and fell and because of other commitments from the General Fund. However, it is clear that the dollars committed to the Competitive Grant project rose significantly through the years.

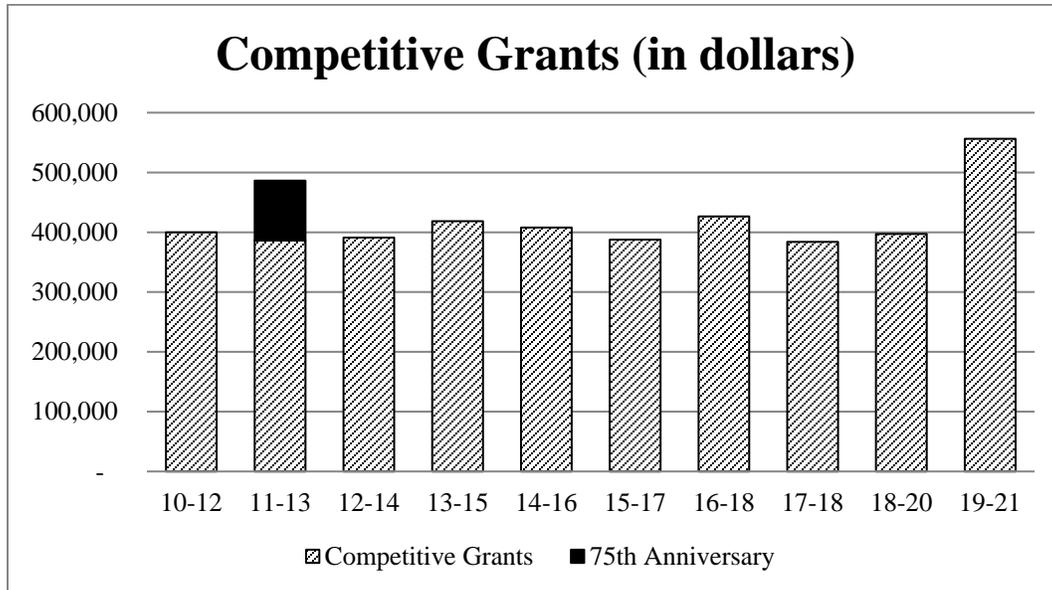
Table 1 - ARF Competitive Grant Program Funded Proposals*

Year	No. of proposals	No. funded	Total dollars (Gross)	
1978		6	18600	
1979		10	38458	
1984	46	29		
1985	45		146433	
1986	70	23	138185	
1987	56	22	148255	
1988	61	20	127704	
1989	75	23	156610	
1990	54	17	116300	
1991	63	16	106549	
1992			67652	
1993	36	12	40277	
1994				No awards
1995				No awards
1996	75	23	153849	
1997		23	147000	
1998		26	176652	
1999	39	26	172878	
2000	44	25	172271	
2001	50	27	188099	
2002	64	29	247000	
2003	43	27	250000	
2004		29	249990	
2005	65	31	294797	
2006	74	35	337844	
2007	89	33	372235	
2008	69	33	373761	
2009	88	33	399548	
2009	49	2	100000	75th Anniversary
2010	80	33	400000	
2010	49	2	100000	75th Anniversary
2011	95	33	398790	
2012	84	35	427328	
2013	72	34	418546	
2014	80	34	420314	
2015	80	34	399912	
2016	76	35	426396	
2016	1	1	12195	Hemp research
2017	71	31	383911	
2017	10	7AY,2SU,1BTH	12000	Undergraduate research**
2018	82	32	397285	
2018	15	3AY,9SU,3BTH	12000	Undergraduate research
2019	82	45	556415	
2019			12000	Undergraduate research
	Total		9118039	

* A missing number means no information was available in ARF records

**Academic year (AY), summer (SU), both (BTH)

The chart below shows Competitive Grant total dollar allocations for the program years 2010-12 to 2019-21.



Upper dollar limit for each grant

The upper dollar limit for each grant has been frequently discussed. Given that limited funds were available each year to support the grants project, the question of size of grant versus number of grants was routinely asked. If more dollars were available for each proposal, fewer grants could be awarded. In the beginning years, the record shows no mention of an upper limit. The first mention was in 1986 when the limit was set at \$7,000. This continued until 1996 when the limit was increased to \$7,500. In 2002, it was increased to \$10,000. In 2007 it was increased to \$12,500 where it remains at the present time. The Board recognizes that funding at this level will not support a major research effort, but the objective is to provide seed money for innovative ideas and to supplement research in new areas. It is the Board’s hope that introductory data obtained will lead to larger grants from federal, state, and private sources, as has often been the case. As can be seen in the above table and chart, total dollars allocated to the Competitive Grant Program has increased over time, but the Board has made the specific decision to retain the current upper dollar limit. This stance was affirmed in 2016 by a Competitive Grant Committee discussion and vote. An effort is underway in 2019 to reassess the limit. Given inflation over the past 12 years, an increase may be warranted.

Rating system

Prior to 2001, proposals were rated on a scale of 1 to 5 (1 being the best score). In 2001, ten of the proposals had equal ratings and the grants committee was asked to change the method of rating in order to reduce the chance of ties. The Committee suggested a 1-10 scale (1 still best), thus spreading out the possible scores and reducing the chances of ties. This was approved by the Board and the number of ties at the fund/not fund break point has significantly reduced in subsequent years.

In 2013, the committee recommended that the highest and lowest ratings be eliminated when compiling the ratings. This was thought desirable because in one instance, a proposal from a newer faculty member was rated highly and would certainly have been funded except one committee member rated that proposal with a 10 (complete rejection). The Committee was small that year, so the 10 caused that proposal to drop below the funding level. More recently, the Committee commonly consists of 12-14 members. In 2017, given number of members, the Committee decided to discontinue the high/low score dropping procedure.

In 2017, the Committee also decided to reverse the scoring system with 1 being worst and 10 best. The Committee decided such scoring was better aligned with other rating systems. The Committee also asked that reviewers, if possible, provide their rationale for all "1" (low) scores. Investigators sometimes ask for reasoning behind low ratings. Comments from reviewers would be useful in this regard.

In a few cases ties do still occur in the rating process. In these instances, the Committee has agreed that tied proposals be ranked by reviewers to resolve ties.

Change of allocation timing

In the beginning of the program, the call for proposals was sent out in early spring, proposals were rated in late spring, and funds were available on July 1. Because many of the proposals involved research that needed to start in the spring, this meant that in a number of cases there were delays of many months between funding and the beginning of research. In 2009, the Committee recommended shifting the process to the fall such that funding would be available on February 1, in time for spring activities. This would also allow for proposal preparation by researchers and rating work by Committee members to be done in less busy times of the year. This proposal was approved by the Board and resulted in two granting periods during the 2009-10 fiscal year.

75th anniversary year

In 2009, the Board discussed ways to celebrate the 75th anniversary year of the Foundation. A number of suggestions were made, but in recognition of the Foundation's primary mission, it was finally decided to make two large, special grants of \$100,000 each to be awarded at \$50,000 in each of two years. Abbreviated pre-proposals were invited and 49 were received. The Committee rated these and narrowed them down to eight. Those researchers were then asked to submit a full proposal. These were rated and narrowed down to the two successful proposals – Dr. Sujaya Rao, Crop and Soil Science, “Enhanced Crop Production in Oregon: Augmentation and Management of Bee Pollinators” and Dr. Don Armstrong, Botany and Plant Pathology, “A New Class of Herbicides for the Control of Grassy Weeds.” These large grants plus the two \$400,000 granting periods combined to a total of nearly a million dollars spent on competitive grants in the 2009-2010 fiscal year.

Newer faculty favored

From the beginning, the intent of the Board was to favor proposals from newer faculty, those who had five years or less of service. These small grants were relatively easy to obtain, in comparison to other grants, and were seen as a means to help launch careers. For years, newer faculty proposals were just identified and each committee member rated them a bit higher than those from older faculty. However, this rating could vary from one committee member to another. It was decided that committee members should ignore length of service and a sub-committee would meet after all ratings were in to determine an equal adjustment that would be given to all proposals from newer faculty. Over time, this adjustment settled in on a bonus value of -0.375 (negative given that 1 was the best score). In 2016, an assessment of a sliding “bonus” scale was made versus the fixed value. Less than one year of service was given a bonus of -0.5, two years -0.4, etc. In reviewing four years of data, it was found that a sliding scale gave no different results than the fixed value and so the fixed value bonus was retained. However, a change that was made in 2016 by Committee vote was that only assistant professors with five years or less of service would be given bonus points. Oregon State University (OSU) has been successful in the last ten years in hiring mid-career associate and full professors. While these individuals could have five or less years of service at OSU, the Committee decided that they did not need the same “leg up” that was beneficial to assistant professors. With the reversal in rating system approved in 2017, the bonus to newer faculty became +0.375.

Call for proposal and other process changes

Prior to 2012, hard copies of proposals were sent to all Committee members. Booklets of hundreds of pages were being printed and mailed to ten or more Committee members. In 2012, committee members were given the choice of electronic or hard copy.

In 2013, based on some confusion among researchers in prior year submissions, the Board recommended that the Call for Proposals be revised to clarify the intent and procedures for those submitting proposals. A sub-committee of Bud Weiser, Steve Price, and Arnold Appleby spent many hours making needed revisions. A section was added to advise the faculty how to write a proposal. Included was the suggestion to avoid complicated scientific terminology; “explain your intended research like you are discussing it with your neighbor over a cup of coffee.” They were asked to emphasize how the research could benefit Oregon agriculture, not just fill up more files with data to lead to another scientific paper. A copy of the current Call for Proposals is provided in Appendix One. Several committee members have commented that since these revisions, the quality of proposals has improved.

Undergraduate Student Research Funding

In the fall of 2016, the ARF Board decided to allocate \$12,000 from its Competitive Grants funds pool to support undergraduate research in the College of Agricultural Sciences (CAS). ARF worked with the Academic Programs Office in CAS to develop an upper class, undergraduate research program through which \$700-1000 was allocated per grant to support research experiential learning for students in either summer or the school term. This allocation meant that one less faculty research proposal could be funded but in essence 12 additional faculty received a small amount of funding to support their research efforts.

Funded proposals

Electronic records for the Competitive Grant program are available from 2006 to present. The principal investigators and the titles of their funded proposals for the period 2009 – 19 are listed in Appendix Two. Reports for proposals for 2013-15 and later grant periods can be found at <http://agresearchfoundation.oregonstate.edu/past-projects>

Conclusion

The ARF Competitive Grants program has infused over \$9 million dollars into the OSU research system since its inception in 1978. We know that these funds have met their intended goal of launching the careers of young scientists and of opening the doors for new scientific discoveries. This program is an optional funding item within the ARF General Budget, but each year it is among the highest priorities for ARF Board members. It will be continued into the future.



AGRICULTURAL
RESEARCH FOUNDATION

Competitive Grants Program 2019-2021

Application and Instructions

Agricultural Research Foundation
1600 SW Western Blvd., Suite 320
Oregon State University
Corvallis, OR 97333
(541) 737-3228

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Proposal Instructions/Criteria	Page 2
Proposal Guidance	Page 4
Rating Criteria	Page 5
Proposal template	Page 5

Dates to Remember

Proposals Due by	November 14, 2018
Awards Announced	Early February 2019
Funding Available	Early February 2019
Progress Report Due	January 31, 2020
Final Report Due	January 31, 2021

Overview of the Competitive Grants Program

The Competitive Grants Program of the Agricultural Research Foundation (ARF/Foundation) is designed to encourage and fund research studies at OSU that will enhance Oregon's agricultural productivity; the quality of its produce and products; and wise management and use of its natural resources - air, water, watershed, forest, fisheries, and wildlife. Our goal is to make catalytic grants that help young scientists launch their research, and help established scientists embark on new research directions or approaches.

The funds available to support the Competitive Grants Program are discretionary funds generated by the Foundation's investments. The level of funding available for the program each year is determined by the Board of Directors. The Board's decision is based on that year's return on the Foundation's investments minus the other costs of conducting Foundation business. Funding its Competitive Grants Program at the highest level possible is a top priority of the ARF Board.

In 2018, the ARF Competitive Grants Program awarded funds for 32 of 82 submitted proposals. Many unfunded proposals were highly ranked and considered to be worthy of funding by the panel, but could not be funded given dollar limitations.

Grant award decisions are based on the review and recommendations of a 12 plus member Grant Committee. Panelists are ARF Board members who volunteer to serve as reviewers. Committee members assign a numeric value to each proposal based on use of the proposal preparation guidelines and criteria listed on pages 4-5. Scores are averaged. The Grant Committee's collective numeric scores are used to rank proposals with the cutoff for funding being determined by available dollars. Assistant professors with five years or less of work in the OSU system are given some preference in our ranking system.

Proposal Instructions/Criteria

The Agricultural Research Foundation is inviting research proposals from **Oregon State University faculty members** with the rank of **Assistant Professor** or above. Senior Research and Practice titled professorial faculty as well as courtesy and affiliate are eligible to apply. Funding best research is our priority. When proposals are similarly scored, we give preference to assistant professors. The Grant committee is not inclined to give a new award to a previous award winner (funding cycle 2016-18 or earlier) who has not filed a final report and/or has a fund balance greater than 50% of their allotted funds. Please contact Russ Karow if you have questions in this regard. Researchers may submit up to two proposals. One researcher had two proposals funded in the 2018-20 funding cycle.

1. Proposal(s) should focus on research important to Oregon's diverse agriculture and natural resources. Research may be basic or applied. **Preference will be given to proposals that may eventually lead to practical products or practices.** For a listing of previously funded proposals, see - <http://agresearchfoundation.oregonstate.edu/past-projects>
2. Joint, interdisciplinary projects are welcomed. Each joint proposal should specifically list the complimentary proposal(s) but each should stand on its own. Each will be assessed on its individual merit. Each project is eligible for full funding. One, all, or none may be funded.

3. The maximum award will be \$12,500. The project must be **completed within two years** unless an extension is granted. Progress reports are due 1/31/2020. Final reports are due 1/31/2021. ARF asks that a no more than 300-word layperson language summary and several photos of your work be submitted with each report. These may be used in ARF's annual report or on our website.
4. **Proposal deadline is 11:59 p.m. November 14, 2018. Late proposals will not be accepted.** Awards will be announced and funds will be available in early February 2019.
5. Proposal preparation - failure to follow these guidelines will result in your proposal not being funded
 - Please use the proposal template provided. If you use the version at the end of this document, you will need to adjust pagination and margins
 - Use the signature page provided and make it a separate page in your document
 - Complete the cover page provided and make it a separate page in your document
 - The proposal body should not be more than four (4) pages long. The review panel is composed of agricultural producers and processors; fishery and wildlife managers and practitioners; and emeritus OSU faculty members. Please write your proposal clearly in non-technical language and cite no more than six (6) references
 - Use 1-inch margins on all sides, single line spacing, at least 11-point font
 - If you use page numbers, place them at top right
 - A complete proposal document includes the signature page (no actual signatures are needed), cover page, proposal body, and budget page
 - Do not include any letters of support from inside or outside OSU
 - Your complete proposal cannot exceed 10MB
 - Once your proposal is finalized, save as a PDF file using this naming format YOURLASTNAME_ARF_2019-21. If you are submitting two proposals, add a suffix identifier to each file name, i.e., YOURLASTNAME_ARF_2019-21_FERTILITY
6. Submission to the Agricultural Research Foundation (ARF)
 - Go to <http://agresearchfoundation.oregonstate.edu/arf-intake-form>
 - Enter your first and last name and email address
 - Upload your PDF proposal file
7. All PIs who have a submitted proposal in the web system will receive a notification email by the end of the day on November 14. If you submitted a proposal but do not receive such notice, please contact the ARF office.
8. Signature copy – we will be using the OSU DocuSign system to secure needed signatures on proposals. Please do not print a copy of the signature page and sign it. Shortly after you load your proposal into the intake system, you will receive an email from DocuSign asking for your electronic signature. You will later receive a fully signed copy of your proposal from the DocuSign system. If you include co-PIs on the proposal, each will have to electronically sign the proposal. Cooperators do not need to sign proposals. Be sure that co-PIs are truly fulfilling a lead role in the work.

9. These guidelines and the proposal template are also available at the Agricultural Research Foundation's website <http://agresearchfoundation.oregonstate.edu> under the Grant Program tab
10. Please direct any questions to Charlene Wilkinson (541-737-3228) or Russ Karow (541-737-4066)

Proposal Guidance

Considerations in preparing your proposal:

1. The charge of the ARF is to aid in **research**. Projects for education or training are important, but funds should be sought elsewhere. Of course, conveying the results of the proposed research to potential users is a crucial part of any research project. Requesting funds for defraying costs of such activities is acceptable.
2. A good proposal will emphasize how the proposed research is intended to aid in agriculture or natural resources, either in the near future (applied) or by leading to developments further in the future (basic). Simply satisfying your curiosity or compiling data for a refereed paper will not impress the reviewers. Tell us specifically what significant contribution your research could make.
3. We do not fund acquisition or construction of facilities (bricks and mortar). Requests for equipment needed to carry out the proposed research are legitimate. The proposal must describe this need and specify how the equipment will be used in this research, not just to better equip your laboratory.
4. While it may be easiest for you to directly cut-and-paste material from another proposal when preparing your ARF proposal, your proposal will be rejected if it is obvious that you have done so. Your reviewers are primarily nonacademic people who may have only a minimal familiarity with the details of your science. Please write your justification, objectives, procedures, and impacts such that a person with limited background can understand what you are saying – like talking with your next-door neighbor. A proposal that reviewers cannot readily understand is likely to be poorly rated and not funded.
5. Research that is original and innovative tends to be favored. If appropriate, describe to what extent your proposed study fits this description.
6. Future funding is difficult to predict, but tell us how the results of your research might help lead to future grant funding from other sources.
7. Please keep in mind that funds to finance this research are limited. We are able to fund no more than one third to one-half of the requests. We regret that each year dozens of well-prepared and appropriate proposals cannot be funded simply because the funds available are limited.
8. The following is a list of questions that reviewers consider when doing their assessments. It is provided to help you plan and prepare your proposal.

Rating Criteria

- Is this project **relevant** to Oregon’s agriculture and/or natural resources?
- Are the research plan and goals clearly stated and **understandable**?
- Does the proposed research address a **significant** problem or potential?
- Will the results of this study be **useful**? Might they **make a difference**?
- To what extent is the proposed research **original, innovative, or new**?
- Will benefits of this research be **economic? environmental? scientific? social**?
- Will the results be **communicated** to appropriate audiences?
- Is this project or a closely related project **already receiving adequate funding** from other sources?
- Might results from this research lead to **future grant funding** from other sources?

RESEARCH PROPOSAL TO THE AGRICULTURAL RESEARCH FOUNDATION FOR THE COMPETITIVE GRANT PROGRAM – 2019- 2021

SIGNATURE PAGE (not included in four-page limit)

Proposal title:

Principal Investigator _____

Date

Principal Investigator Name:

APPROVED BY:

Principal Investigator's Unit Leader _____

Date

Unit Leader Name:

APPROVED BY:

Principal Investigator's Academic College _____

Date

Academic College Name:

Use a separate line for each co-PI. If co-PIs are in a different unit, add unit and college administrator lines as needed.

WE WILL OBTAIN SIGNATURES USING THE OSU DOCUSIGN SYSTEM. THERE IS NO NEED TO ROUTE YOUR PROPOSAL FOR HARDCOPY SIGNATURES.

<<<page break>>>

PROPOSAL COVER PAGE (not included in four-page limit)

Lead Researcher

Name:

Email address:

Phone number:

Academic rank (Asst., Assoc. or Full Professor):

Appointment type (Regular; Sr. Research; Prof. of Practice; Courtesy; Affiliate):

Start date in current rank (MM/DD/YYYY):

Physical work location:

Immediate supervisor:

OSU academic home department:

Co-PI(s) (if any):

Cooperator(s) (if any):

Project Title:

Project Dollar Amount:

<<page break>>

PROPOSAL BODY *(four-page limit)*

Justification:

Objectives:

Procedures:

Specific roles of Co-PI(s) and Cooperator(s), if listed on cover page:

Impact:

References cited (six maximum):

Duration of study:

<<<page break>>>

BUDGET *(not included in four-page limit – please round all figures to nearest dollar)*

Salaries:

- Faculty
- Graduate Student
- Other Students
- Other Labor - specify type
- OPE for all categories

Travel:

- Domestic - in state

Domestic - out of state

Foreign - foreign travel may be allowed if it will significantly and directly contribute to the research being proposed – explain why this is so

Services:

Supplies:

Equipment:

Total:

List any other funding sources that may be used for this work. List dollar amount available from these sources.

Budget Notes:

- “Overhead” charges (facilities and administration) are not allowed.
- Other Payroll Expenses (OPE) are not considered to be “overhead” and should be shown if you are paying wages or salaries of any type.
- Tuition and fee charges are not allowed as ARF budget items. If you are including a graduate student assistantship in your budget, please indicate as a budget note how tuition and fees will be paid.

Appendix Two

ARF Competitive Grant Program funded proposals
from 2009-11 through 2019-21

2009-11

Researcher	Unit	Project	Amount Awarded
Bartholomew, Jerri	Microbiology	Effects of Hatchery Practices on Resistance to Disease in Steelhead	\$12,227
Chang, Jeff	Botany & Plant Pathology	Determining the Transcriptome Changes of Pathogenic Bacteria Grown in Plant-Mimicking Conditions	\$12,500
Cherian, Gita	Animal Science	<i>Camelina sativa</i> for Omega-3 Egg Production	\$11,500
Contreras, Ryan	Horticulture	Development of a Sterile Form of Norway Maple (<i>Acer platanoides</i>)	\$11,250
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Effects of Acclimation to Handling on Performance and Reproductive Development of Replacement Heifers	\$12,500
Flowers, Mike	Crop & Soil Science	Evaluating a Remote Sensing Technique for Predicting In-Season Nitrogen Application Rates on Perennial Ryegrass for Seed Production	\$12,500
Goyer, Aymeric	Hermiston Ag Research & Ext Center	Evaluation of the Variability of Folate Concentrations in Cultivated Wild Potato Species	\$12,462
Hase, Claudia	Veterinary Medicine	Detection of <i>Vibrio tubiashii</i> T oxin in Oyster Hatcheries	\$12,500
Horneck, Don	Hermiston Ag Research & Ext Center	Determining the Influence of Riparian Buffers on Reactive Nitrogen in Agricultural Runoff	\$12,480
Males, Jim	Animal Science	Puberty Development and Reproductive Performance in Beef Heifers Fed Rations supplemented with Oregon By-Product Feeds	\$12,500
Mallory-Smith, Carol	Crop & Soil Science	Survey and Identification of Herbicide Resistant Hybrids of Jointed Goatgrass and Clearfield Wheat	\$12,500
Mata-Gonzales, Ricardo	Rangeland Ecology & Management	Accurate Determination of Cattle Diets by Fecal DNA Analysis in Sagebrush Ecosystems	\$12,500
Menino, Alfred	Animal Science	Plasma Markers of Cystic Ovarian Disease: Plasminogen Activators and Inhibitors	\$12,500
Murthy, Ganti	Biological & Ecological Engineering	Evaluation of Heavy Metal Sequestration Potential of Freshwater Algae species and Their Use in Bioremediation of Landfill Leachate	\$12,500
Ocamb, Cindy	Botany & Plant Pathology	Effects of Germicidal Light on Seed-Borne Populations of <i>Xanthomonas hortorum</i> pv. <i>Carotae</i> in Carrot Seed	\$12,500
Ocamb, Cindy	Botany & Plant Pathology	Field Corn Susceptibility to Fusarium Crown and Stalk Node Rot	\$12,500
O'Reilly, Kathy	Veterinary Medicine	Development of an <i>in vitro</i> Model to Study Interactions of Organisms in Shipping Fever Complex	\$10,858
Owen James	North Willamette Research & Ext Center	Improving Shad-Tree Fertility: Quantifying Annual Nutrient Removal from the Soil	\$11,938

Petrie, Steve	Columbia Basin Ag Research Center	Investigation of the Effect of Phosphorus Fertilization on Hessian Fly Infestation in Spring Wheat	\$11,860
Riera-Lizarazu, Oscar	Crop & Soil Science	Engineering a Chromosome that Confers Resistance to a Fungal Disease of Wheat	\$12,480
Rondon, Silvia	Hermiston Ag Research & Ext Center	Improved Management of Potato Purple Top disease: Development of Treatment Thresholds for the Beet Leafhopper in the Columbia Basin	\$7,773
Roseburg, Rich	Klamath Basin Research & Ext Center	Russian Dandelion Yield Trials	\$12,400
Roseburg, Rich	Klamath Basin Research & Ext Center	Developing Grindelia as a Drought-Tolerant, Domestic Crop Source of Industrial Resins	\$12,490
Sagili, Ramesh	Horticulture	Potential Use of Brood Pheromone to Increase Honey Bee colony Growth and Pollination Efficiency	\$12,500
Sarker, Mahfuzur	Veterinary Medicine	Inhibitory Effects of Nisin Against <i>Clostridium perfringens</i> Growth in Meat Products	\$12,500
Skinkis, Patty	Horticulture	Developing Canopy Management Guidelines and Identifying In-Field Biomarkers for Quality Grape Production in Oregon Vineyards	\$11,800
Su, Yi-Cheng	Coastal Oregon Marine Experiment Station - Astoria	Application of Probiotics in Depuration Process for Reducing <i>Vibrio parahaemolyticus</i> Contamination in Oysters	\$12,500
Vales, Isabel	Crop & Soil Science	Implementation of Molecular marker-Assisted Breeding to Incorporate Durable Late Blight Resistance (RB gene) to Specialty Potatoes	\$12,300
Vales, Isabel	Crop & Soil Science	Fast-Track Molecular Marker-Assisted Introgression of Extreme Resistant to Potato Virus Y (PVY) in Specialty Potatoes	\$11,500
Walton, Vaughn	Horticulture	Alternative Control Strategies of Black Vine Weevil, <i>Otiorhynchus sulcatus</i>	\$12,500
Walton, Vaughn	Horticulture	Economic Impact and Control of Black Vine Weevil, <i>Otiorhynchus sulcatus</i> on Blueberries	\$12,500
White, Linda	Coos County Extension	Bulb Mite Control in Easter Lilies	\$12,230
Wysocki, Don	Columbia Basin Ag Research Center	Investigating Biochar as a Yield Enhancement and Soil Amendment for Dryland Wheat Production	\$12,000
			\$399,548

2010-12

Researcher	Unit	Project	Amount Awarded
Anderson, Nicole	Crop & Soil Science	Native bumble bee abundance and foraging behavior in early blooming seed crops in the Willamette Valley	\$12,500
Bohnert, Dave	Eastern Oregon Ag Research Center - Union	Protein supplementation of low-quality forage: effects of amount and frequency of protein supplementation on ruminant performance and nutrient utilization	\$9,680
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Effects of energy supplementation frequency and forage quality on performance, reproductive, and metabolic responses of replacement beef heifers	\$12,500
Dreher, Theo	Microbiology	Improved identification of toxic cyanobacterial bloom populations	\$12,500
Dreves, Amy	Crop & Soil Science	The seasonal phenology of the spotted wing drosophila, a new invasive fruit pest - hibernation, spring emergence, and oviposition	\$12,465
Flowers, Mike	Crop & Soil Science	Alternative winter cereal crops for Western Oregon	\$12,500
Givan, Scott	Center for Gene Research & Bioinformatics	Sequencing the hazelnut transcriptome	\$12,500
Hall, Jean	Veterinary Medicine	reconsider its use as a selenium source for beef cattle and sheep during wet weather months in Oregon?	\$12,500
Johnson, Doug	Rangeland Ecology & Mgt	Evaluating dryland forage options and targeted grazing techniques for restoration of a Russian knapweed infested rangeland	\$12,500
Landgren, Chad	North Willamette Research & Extension Center	Collection and testing of new genetic sources of Nordmann and Turkish fir for Oregon's Christmas tree industry	\$10,600
Ling, Q	Food Innovation Center	Improving quality and dehydration of value-added blueberries using CO2 Laser processing technology	\$12,472
Mallory-Smith, Carol	Crop & Soil Science	Survey and identification of herbicide resistant hybrids of jointed goatgrass and Clearfield wheat - year 2	\$12,500
Menino, Alfred	Animal Science	The role of antral follicle count and plasma anti-Mullerian hormone in puberty onset and reproductive performance in beef heifers fed rations supplemented with Oregon by-product feeds	\$11,000
Miller, Jeff	Rangeland Ecology & Mgt	The spotted wing drosophila in Oregon: Assessment of natural Enemies for implementation of biological control west of the Cascade mountains	\$12,500
Petrie, Steve	Columbia Basin Ag Research Center	Development of winter safflower as a dryland crop for Eastern Oregon	\$11,780
Putnam, Melodie	Botany & Plant Pathology	Hop stunt viroid assay development	\$12,445
Rao, Sujaya	Crop & Soil Science	Using GPS technology and soil fertility maps for determining plant nutrient factors correlated with choke disease incidence in orchardgrass fields in the Willamette Valley	\$12,500
Rao, Sujaya	Crop & Soil Science	Investigations on beneficial and pathogenic microorganisms in native bumble bee pollinators in Oregon crops	\$12,500

Ream, Walt	Microbiology	Improved biological control of crown gall disease on nursery plants	\$12,500
Rondon, Silvia	Hermiston Ag Research & Extension Center	Improved management of potato Purple Top disease: Development of treatment thresholds for the beet leafhopper in the Columbia Basin	\$8,832
Roseberg, Rich	Klamath Basin Research and Extension Center	Moving <i>Euphorbia lagascae</i> from research plots to quasi-commercial oil seed production	\$12,474
Roseberg, Rich	Klamath Basin Research and Extension Center	Mitigating the effects of reduced irrigation in the Klamath Basin	\$12,354
Sagili, Ramesh	Horticulture	Establishing economic threshold and epidemiology for <i>Nosema ceranae</i> , a relatively new species of microsporidian parasite in the honey bee for Oregon	\$11,900
Sarker, Mahfuzur	Veterinary Medicine	Inhibitory effects of potassium sorbate and sodium benzoate against <i>Clostridium perfringens</i> growth in meat products	\$12,500
Shearer, Peter	Mid-Columbia Ag Research & Extension Center	The spotted Wing Drosophila in Oreogn: Assessment of natural enemies for implementation of biological control in the Mid-Columbia River Basin	\$12,500
Smiley, Dick	Columbia Basin Ag Research Center	Quantifying root-lesion nematodes (<i>Pratylenchus thornei</i>) in soil by real-time PCR	\$12,500
Vales, Isabel	Crop & Soil Science	Optimization of methodologies to systematically use molecular markers to select for resistance to the Columbia root-knot nematode early in the potato breeding program	\$12,140
Villarroel, Aurora	Animal Science	A pilot study to evaluate changes in milk parameters measurable with an in-line testing system in early lactation dairy cows with metabolic disorders	\$12,500
Walton, Vaughn	Horticulture	Understanding Spotted Wing Drosophila seasonal phenology on key small fruits in the PNW	\$12,500
Walton, Vaughn	Horticulture	Methods of control of <i>Cydia latiferreana</i> , filbertworm moth, in commercial hazelnut orchards	\$12,328
Wu, Bo-Ming	Central Oregon Ag Research Center	Effects of weather conditions on ergot in Kentucky Bluegrass in Central Oregon	\$12,500
Yang, Wei	North Willamette Research & Extension Center	Evaluate the fresh market quality of blueberries harvested by a novel mechanical harvester using compressed air	\$12,030
Zasada, I and Ingham, R	Botany & Plant Pathology	Application of molecular techniques for the identification of root-lesion nematodes (<i>Pratylenchus spp.</i>) in Oregon	\$12,500
			\$400,000

2011-13

Researcher	Unit	Project	Amount Awarded
Anderson, Nicole	Yamhill County Extension	The effect of trinexapac-ethyl plant growth regulator on seed yields of red clover crops in Western Oregon	\$12,500
Bobe, Gerd	Animal & Rangeland Science	Yeast culture supplementation improves immune function in dairy cows	\$12,102
Bottomley Peter	Microbiology	Contributions by ammonia-oxidizing archaea and bacteria to nitrification and loss of N in responses to soil conditions and cropping management	\$12,500
Bruck, Denny	Horticulture - USDA	Identifying a compatible marker for studying movement of spotted wing <i>Drosophila (Drosophila suzukii)</i>	\$12,040
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Effects of carmelina meal supplementation on performance and health responses of beef cattle	\$12,500
Denver, Dee	Zoology	Mitochondrial genome sequencing and practical genetic resource development for 48 plant-parasitic nematode species	\$12,000
Downing, Troy	Tillamook County Extension	The economics of grass-based dairying in Oregon	\$12,500
Felix, Joel	Malheur Experiment Station	Evaluation of Sweet Potato Cultivars and Irrigation Criteria	\$12,500
Golembiewski, Robert	Horticulture	Use of new soil amendment for reduced turfgrass water use, quicker turf establishment, and improved sod quality	\$12,500
Goyer, Aymeric	Hermiston Ag Research & Extension Center	Increasing marketability of Oregon potato varieties: targeting the B vitamins folate and thiamine	\$12,434
Hall, Jean	Veterinary Medicine	Can we demonstrate improved immune status in weaned beef calves fed selenium-fortified alfalfa hay in the preconditioning period?	\$12,500
Hayes, Pat	Crop and Soil Science/Food Science and Technology/Engineering	New research perspectives and horizons for Oregon barley and malting	\$12,352
Kleber, Markus	Crop & Soil Science	Designing an ethylene-neutral biochar as a substitute for vermiculite in the Oregon nursery industry	\$12,500
Lambrinos, John	Horticulture	Determining the carbon allocation and sequestration of a mature blueberry field	\$12,384
Leonard, Jeff	Crop & Soil Science	Development of a co-dominant marker for strawbreaker foot rot resistance gene Pch1 in wheat	\$12,200
Maier, Claudia	Chemistry	The effect of <i>In Vitro</i> mineral nutrition on raspberry growth, metabolism and mineral composition	\$12,500
Martin, Bob	Horticulture - USDA	Characterization, detection and vector identification of blueberry fruit drop, blueberry mosaic and blueberry necrotic ring blotch viruses	\$12,500
Owen, James	North Willamette Research & Extension Center	Suitability of anaerobic digested food-waste solids as a peat substitute for floriculture and nursery crop production in the Pacific Northwest	\$8,962

Parke, Jennifer	Crop & Soil Science	Sustainable methods for disinfecting irrigation water in nurseries	\$12,500
Pastey, Manoj	Veterinary Medicine	Rapid and sensitive method using real-time PCR for diagnosis of infections by bovine parainfluenza virus 3 in clinical samples	\$12,500
Putnam, Melodie	Botany & Plant Pathology	<i>Botryosphaeria</i> detection and identification in grapevines, tree fruits and ornamental crops: improved assays	\$6,800
Rao, Sujaya	Crop & Soil Science	Enhancing pollination in greenhouse crops in Oregon	\$12,500
Rao, Sujaya	Crop & Soil Science	Management of clover crownborer for enhancing red clover seed production in the Willamette Valley	\$12,500
Ross, Andrew	Crop & Soil Science	Marker assisted selection strategies for quality and nutritional attributes in wheat	\$12,500
Sagili, Ramesh	Horticulture	Comprehensive evaluation of role of nutrition in honey bee colony losses	\$12,400
Sarker, Mahfuzur	Veterinary Medicine	Strategies to decontaminate bacterial spores on food processing surfaces	\$12,500
Smiley, Dick	Columbia Basin Ag Research Center	Developing a real-time PCR method to quantify cereal cyst nematodes in soil	\$12,500
Stephen, Bill	Crop & Soil Science	Assessment of native bee pollinators in Willamette Valley agroecosystems	\$11,424
Sullivan, Dan	Crop & Soil Science	Adding value to composts derived from dairy or horse manures via improved pH adjustment methodologies	\$12,500
Wooster, David	Hermiston Ag Research & Extension Center	Determining how the reactive nitrogen filtering capacity of riparian buffers affects stream water quality	\$12,500
Wu, Bo-Ming	Central Oregon Ag Research Center	Developing integrated management strategies for powdery scab on potato crops	\$12,500
Yang, Wei	North Willamette Research & Extension Center	Developing new insecticide delivery methods to control spotted wing drosophila (<i>Drosophila suzukii</i>) in commercial blueberries	\$11,500
Yilma, Solomon	Crop & Soil Science	Induced mutation and <i>in vitro</i> techniques as a method to screen drought tolerance in potatoes	\$12,192
			\$398,790

2012-14

Researcher	Unit	Project	Amount Awarded
Anderson, Nicole	Yamhill County Extension	The Effect of Boron on Flower Formation and Seed Yield and Quality of Red Clover Crops in Western Oregon	\$12,500
Bobe, Gerd	Animal & Rangeland Science	Visfratin: A Potential Link Between Metabolic and Infectious Diseases in Dairy Cows	\$12,102
Bruck, Denny	Horticulture - USDA	Utilizing Protein Marker Technology for Studying Movement of Spotted Wing Drosophila (<i>Drosophila Suzukii</i>) in the Field	\$12,450
Chang, Jeff	Botany & Plant Pathology	Identifying Candidate Virulence Factors of the Broad-Host Range Plant Pathogen, <i>Rhodococcus Fascians</i>	\$12,500
Cherian, Gita	Animal & Rangeland Science	Developing Alternatives to Antibiotics in Poultry Diets	\$12,250
Contreras, Ryan	Horticulture	In Vitro Chromosome Doubling of Common Cherry Laurel and Norway Maple	\$12,367
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Comparison of Energy or Protein Supplementation to Beef Heifers	\$12,500
Gent, David	Botany & Plant Pathology - USDA	A New Perspective on an Old Management Approach: Modeling the Physical Activity of Fungicides for Downy Mildew on Hop	\$12,211
Goyer, Aymeric	Hermiston Ag Research & Extension Center	Identification of Quantitative Traits to Assist in Selection of Potatoes with Enhanced Nutritional Value	\$12,500
Hase, Claudia	Veterinary Medicine	Development of an ELISA-Based Detection Assay for the <i>Vibrio Tubiashii</i> Metalloprotease	\$12,500
Hayes, Pat	Crop & Soil Science	Bringing Color and Novelty to Barley, Naturally: High Value Grain for Oregon Growers, New Products for Oregon Processors and Expanded Healthy Choices for all Oregonians	\$12,000
Kleber, Markus	Crop & Soil Science	Engineered Biochar to Replace Peat in Potting Media	\$12,500
Kling, Jennifer	Crop & Soil Science	Breeding Dual-Purpose Flax Varieties for Emerging Textile Markets in Oregon	\$12,425
Leonard, Jeff	Crop & Soil Science	Isolation of High-Amylose Wheat Lines Deficient in Starch Branching Enzyme Lla	\$12,308
Mallory-Smith, Carol	Crop & Soil Science	Herbicide Resistant Italian Ryegrass: Any Options Left?	\$12,500
Menino, Alfred	Animal & Rangeland Science	Postpartum Reproductive Performance in Beef Heifers Fed Rations Supplemented with Oregon By-Product Feeds	\$7,500
Miller, Jeff	Horticulture	Accelerated Testing of Non-Target Species for Establishing Biological Control of <i>Halyomorpha Halys</i> , the Brown Marmorated Stinkbug. A New Exotic Pest in Oregon	\$12,500
Mueller, Chad	Eastern Oregon Ag Research Center - Union	Growth and Metabolic Characteristics of Short-Fed Market Calves Grandaired by Either Forage- or Grain-Based Sires	\$12,500

Parke, Jennifer	Crop & Soil Science	Solarization and Biocontrol to Eliminate <i>Phytophthora</i> spp. From Infested Soil in an Oregon Container Nursery	\$12,500
Pastey, Manoj	Veterinary Medicine	Validation of PCR-based Mastitis Test for the Detection of Mastitis Caused by 12 Groups of Bacterial Pathogens in Milk Samples Collected From Dairy Farms	\$12,500
Peachy, Ed	Horticulture	Integrated Strategies to Improve Weed Control in Table Beets and Chard	\$12,414
Rondon, Silvia	Hermiston Ag Research & Extension Center	New Emerging Pest in the Pacific Northwest: The Potato Psyllid and the Pathogen <i>Candidatus Liberibacter solanacearum</i>	\$12,500
Ross, Andrew	Crop & Soil Science	Tracing the Source of Widespread Low FN Wheats: an Alternative Hypothesis	\$12,500
Sagili, Ramesh	Horticulture	Regulation of Swarming and Queen Rearing in Honey Bee Colonies	\$12,500
Sarker, Mahfuzur	Veterinary Medicine	The Inhibitory Effect of Chitosan Against Germination and Outgrowth of <i>Clostridium Perfringens</i> Spores in Meat Products	\$12,500
Sbatella, Gustavo	Central Oregon Ag Research Center	Potential Use of Desiccants and Defoliants as Harvest Aids for Direct Harvest of Hybrid Seed Carrot	\$12,000
Sbatella, Gustavo	Central Oregon Ag Research Center	Impact of Herbicide Applications for Exotic Annual Grass Control on Fuel Load Production and Plant Communities	\$12,200
Sikora, Aleksandra	Pharmacy	Targeting the Type II Secretion System for Natural Product Treatments Against Plant-Pathogenic Bacteria	\$12,500
Stone, Alex	Horticulture	Management of Fusarium Wilt of Cucurbits with Vetch Cover Cropping	\$11,430
Sullivan, Dan	Crop & Soil Science	Control of Phytophthora Root Rot Disease of Blueberry Using Biocontrol Agents, Biofungicides and Varietal Resistance	\$12,500
Thompson, Maxine	Horticulture	Pollination Biology of Haskap, a Potential New Berry Crop for the Northwest	\$11,566
Townsend, Shaun	Crop & Soil Science	Hop Cone Quality and Chemical Profile Using a Modified Drying Protocol for Wet Cones	\$12,405
Walton, Vaughn	Horticulture	Poultry for Orchard Pest Management	\$12,500
Yilma, Solomon	Crop & Soil Science	Molecular Marker Assisted Pyramiding of Genes for Extreme Resistance (ER) to PVY (Ryadg), ER to PVX (Rx1), and Resistance to Columbia Root-Knot Nematode (RMC1(bib)) in Potato	\$12,200
Zhao, Yanyun	Food Science & Technology	Developing Nano-Composite Coatings of Cellulose and Calcium Carbonate to Prevent Moisture Loss and UV Damage to Fruit Crops	\$12,500
			\$427,328

2013-15

Researcher	Unit	Project	Amount Awarded
Anderson, Nicole	Yamhill County Extension	Determining distribution and monitoring for potential crop damage caused by the newly detected clover casebearer moth, <i>Coleophora deauratella</i> , in Oregon clover grown for seed crops	\$12,500
Bakalinsky, Alan	Food Science & Technology	Renewable biodiesel from crop residues	\$12,500
Balint, Gabriel	Southern Oregon Research & Extension Center	Regulators to Enhance Fruit Maturity of Grenache and Cabernet Franc Grapes Under Southern Oregon Conditions	\$12,500
Bottomley, Peter	Microbiology	Influence of ammonia oxidizing Thaumarchaea on N fertilizer use efficiency	\$12,500
Chastain, Thomas G.	Crop & Soil Science	<i>Sinapsis alba</i> : A Multipurpose Rotation Crop for the Willamette Valley	\$12,500
Cherian, Gita	Animal & Rangeland Sciences	Controlling Oxidative Stress to Enhance Hatchability and Chick Quality	\$12,250
Cuesta-Marcos, Alfonso	Crop & Soil Science	Establishment of a rapid and efficient breeding method for food barley using genomic selection	\$12,500
Gent, David	Botany & Plant Pathology - USDA	A Virulent Strain of the Powdery Mildew Fungus Threatens the Oregon Hop Industry	\$9,034
Hall, Jean	Veterinary Medicine	How does prior selenium supplementation of calves affect immune biomarkers in the feedlot?	\$12,500
HepPELL, Scott	Fisheries & Wildlife	Do Oregon's marine reserves provide fishery benefits through the export of fish larvae?	\$12,485
Langdon, Chris	Coastal Oregon Marine Experiment Station - Newport	Analyses of oyster spat pathogenic <i>Vibrio</i> species	\$12,500
Lutcher, Larry	Morrow County Extension	Potential transfer of glyphosate residues from soil or roots to "non-target" wheat seedlings	\$12,500
Mallory-Smith, Carol	Crop & Soil Science	Developing methods to improve efficiency of <i>Tyta luctuosa</i> , a biological control agent of field bindweed (<i>Convolvulus arvensis</i>)	\$12,221
Menino, Alfred	Animal & Rangeland Sciences	Application of a single Lutalyse injection protocol to reduce uterine infections and antibiotic use and improve reproductive efficiency in postpartum cows in an Oregon dairy	\$11,500
Miller, Jeffrey	Horticulture	<i>halyomorphae</i> and the native <i>Trissolcus parasitoids</i> attacking eggs of <i>Halyomorpha halyis</i> , the brown marmorated stinkbug	\$12,500
Morrissey, Michael	Food Innovation Center	Sensory evaluation of hazelnuts treated for microbial reduction	\$12,412
Pastey, Manoj	Veterinary Medicine	Detection of multiple-viruses in bovine respiratory specimens by real-time polymerase chain reaction (RT-PCR): Validation of bovine respiratory panel RT-PCR test in clinical samples	\$12,500
Peachey, Ed	Horticulture	Enhanced efficiency fertilizer technologies for improved production in sweet corn	\$12,500

Penner, Michael	Food Science & Technology	Alkali processing with caustic recovery for enhanced digestibility of roughages	\$12,500
Rao, Sujaya	Crop & Soil Science	Auto-dissemination strategy for management of red clover seed crop pest with insect pathogens	\$12,500
Reitz, Stuart	Malheur County Extension	Insecticide Resistance Monitoring in Onion Thrips - Helping to Make the Best Use of What We've Got	\$12,260
Rockey, Daniel	Veterinary Medicine	Culture and genomic analysis of <i>Chlamydia abortus</i> strains from Oregon	\$12,500
Sagili, Ramesh	Horticulture	Understanding colony level prevalence and intensity of honey bee gut parasite, <i>Nosema ceranae</i> and investigating effects of colony nutrition on persistence of <i>Nosema</i> in honey bee colonies	\$12,500
Sarker, Mahfuzur	Veterinary Medicine	Inactivation of <i>Clostridium perfringens</i> spores adhered onto stainless steel surfaces by Clean-In-Place (CIP) procedure	\$12,500
Sbatella, Gustavo	Central Oregon Ag Research Center	High Production Annual Legumes Suitable for Central Oregon	\$12,500
Smiley, Richard	Columbia Basin Ag Research Center	Soil borne Plant Pathogens in Long-Term Experiments and Fields at Pendleton	\$12,455
Stone, Alexandra	Horticulture	Management of clubroot in cabbage family crops	\$12,360
Strik, Bernadine	Horticulture	Leaf nutrient concentrations for blueberry cultivars grown in Oregon -- development of standards for comparison	\$11,580
Tomasino, Elizabeth	Food Science & Technology	Investigating "Reductive Aromas" in Oregon Pinot Noir Wine; Comparison and Quantitation of Aromatic Compounds in Non-Reductive Wines Throughout the Winemaking Process	\$12,500
Waite-Cusic, Joy	Food Science & Technology	Production Practices and Prevalence of <i>Salmonella</i> on Chicken Carcasses processed in Facilities Exempt from the Federal Poultry Products Inspection Act	\$12,500
Walenta, Darrin	Union County Extension	A new threat to northeastern Oregon certified seed & commercial potato production - Zebra chip and the Potato Psyllid	\$12,500
Walton, Vaughn	Horticulture	Using berry skin-building sprayables to increase blueberry firmness in order to prevent Spotted Wing Drosophila attack.	\$12,500
Weiland, Jerry	Botany & Plant Pathology - USDA	Field cultural practices for controlling <i>Phytophthora</i> root rot disease of blueberry	\$12,499
Wooster, David	Hermiston Ag Research & Extension Center	Timing of pesticide applications: Determining the best time to spray to avoid negative impacts on native pollinators	\$12,490
			\$418,546

2014-16

Researcher	Unit	Project	Amount Awarded
Anderson, Nicole	Yamhill Co Extension	Investing the use of nitrogen, sulfur, & potassium fertilizers to optimize seed production in red clover crops	\$12,500
Bionaz, Massimo	Animal & Rangeland Sciences	Acquisition of immune-resistance to urushiol through daily consumption of milk from goat fed poison oak	\$12,500
Bobbe, Gerd	Animal & Rangeland Sciences	Liver fibrosis: A potential reason for the high morbidity & mortality of dairy cows in early lactation	\$12,423
Cherian, Gita	Animal & Rangeland Sciences	Enhancing the Nutritive Value of Oil Seeds in Poultry Diets	\$12,500
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Metabolic imprinting: impact on growth & reproductive development of beef heifers	\$12,500
Cuesta-Marcos, Alfonso	Crop & Soil Science	Characterization of the Oregon Promise: a unique barley resource for understanding the genetics of malt quality & flavor	\$12,480
Dung, Jeremiah	Central Oregon Ag Research Center	Development of a Molecular Detection Protocol for Ergot in Cool-Season Turf & Forage Grasses Grown for Seed	\$12,422
Einhorn, Todd	Mid-Columbia Ag Research & Extension Center	Developing New Cherry Bud Hardiness Charts to Aid Crop Protection Decisions	\$12,350
Fu, Elaine	Chemical Engineering	Development of milk-based rapid field test for the high sensitivity detection of <i>Salmonella</i> Dublin infected dairy cattle to expedite disease control on endemically infected dairies	\$12,500
Hall, Jean	Vet Med / Biomedical Sciences	Does Feeding Selenium-Fertilized Alfalfa Hay to Pregnant Beef Cows in the third Trimester Increase Passive Absorption of Immunoglobulin G in Newborn Calves & Improve Performance	\$12,500
Harper, Stacey	Environmental and Molecular Toxicology	A comparative analysis of the fate & transformation of nanotechnology-based pesticides & their conventional formulations	\$12,500
Hooven, Louisa	Horticulture	Effect of Nano-Formulated Chlorothalonil Fungicide Products on Honey Bee Development	\$12,500
Killefer, John	Animal & Rangeland Sciences	The Potential for Hazelnut Livestock Feed to Improve Meat Quality, Shelf-Life & Nutrition	\$11,650
Killefer, John	Animal & Rangeland Sciences	Selenium Fertilized Forage as an Organic Selenium Supplement for Dairy Cattle: Impact on Health & Milk Quality	\$12,400
Kowalewski, Alec	Horticulture	Effects of <i>Pseudomonas fluorescens</i> WH6 on annual bluegrass emergence in established perennial ryegrass	\$12,500
Leonard, Jeffrey	Crop & Soil Science	Creating a physical map of the barley genome using radiation hybrids	\$12,460
Maier, Claudia	Chemistry	"Better berries through better metabolism" - Metabolomics of bioactive compounds in berry	\$12,500
Martin, Robert	Botany Plant Pathology	Development of Blueberry shock virus as a Vector for Delivery of RNAi to Control Spotted Wing Drosophila & Blueberry Scorch Virus in Blueberries	\$12,500

Menino, Alfred	Animal & Rangeland Sciences	Modification of the single Lutalyse injection protocol to reduce uterine infections & antibiotic use & improve reproductive efficiency in postpartum cows in and Oregon dairy	\$11,000
Morrissey, Michael	Food Innovation Center	Development of Value-Added Food Products from Barley	\$12,411
Myrold, David	Crop & Soil Science	Turnover of Proteins as a Controller of Soil Nitrogen Cycling	\$12,500
Ochoa, Carlos	Animal & Rangeland Sciences	Water saving from Juniper removal: Looking at the groundwater response	\$12,500
Peachey, Ed	Horticulture	Elucidating the effect of root rot on phosphorus uptake by snap beans	\$11,294
Penner, Michael	Food Science & Technology	Inhibition of Discoloration of Minimally Processed Apples & Potatoes Thru the Application of Plant Byproduct Extracts	\$12,500
Rao, Sujaya	Crop & Soil Science	Evaluation of an Alternative Pollinator for Oregon Blueberries	\$12,500
Reed, Barbara	Horticulture	Improved Mineral Nutrition for Blueberry Micropropagation	\$12,500
Rondon, Silvia	Hermiston Ag Research & Extension Center	Activating the potato immune system to control Potato Virus Y & Zebra Chip disease	\$12,500
Sagili, Ramesh	Horticulture	Evaluating potential of a predatory mite as a biological control agent for honey bee ectoparasite, <i>Varroa</i> mite & testing efficacy of a new miticide (amitraz)	\$12,500
Sarker, Mahfuzur	Veterinary Medicine/ Biomedical Sciences	The inhibitory effects of essential oil against germination & outgrowth of <i>Clostridium perfringens</i> spores in meat products	\$12,500
Sathuvalli, Vidyasager	Hermiston Ag Research & Extension Center	Breeding for Resistance of Verticillium Wilt of Potato: Identification of Potential Resistant Germplasm	\$12,380
Skinkis, Patricia	Horticulture	Investing the extent of Primary Bud Necrosis in Willamette Valley Pinot noir	\$12,344
Su, Yi-Cheng	Coastal Oregon Marine Experiment Station - Astoria	Optimization of Depuration for Eliminating <i>Vibrio parahaemolyticus</i> from Oysters	\$12,500
Walton, Vaughan	Horticulture	Implementing canopy management & weed mat to control in-season populations of Spotted Wing Drosophila in commercial blueberry fields.	\$12,500
Yilima, Solomon	Crop & Soil Science	Fast-Track Development of Potato Clones with Pure Amylopectin Starch Used in the Paper, Textile and Food Industries by Using Induced Mutation	\$12,200
			\$420,314

2015-17

Researcher	Unit	Project	Amount Awarded
Anderson, Nicole	Yamhill County Extension	Plant Growth Regulator Effects on Crimson Clover & White Clover Seed Production	\$12,500
Arispo, Sergio	Malheur County Extension	Enhancing the Nutritive Value of Dry Forages by Ensiling With Onion Slurry: An Unconventional Strategy to Create Alternative Feedstuffs for Beef Cattle	\$12,500
Bermudez, Luis	Veterinary Medicine	Development of Vaccine for Johnes Disease	\$12,500
Bobe, Gerd	Animal & Rangeland Science	Sequestering the Stink: Using Duckweed as a Component of an Animal Waste Management System to Reduce Objectionable Odors and Recycle Nutrients	\$12,490
Bottomley, Peter	Crop & Soil Science	New Strategies to Reduce the Rate of Nitrification of Fertilizer N by a Combination of Selective Microbial Inhibition and Use of Organic and Slow Release N Fertilizers	\$12,500
Bryla, David	Horticulture	Benefits of Humic Acids for Production of Berry Crops	\$12,500
Buhrig, William	Malheur County Extension	Can Pumpkins be Grown for Snack Seed Purposes in Malheur County?	\$4,000
Butler, Marvin	Central Oregon Ag Research Center	Investigation of Predator Mite in Carrot Grown for Seed for Control of Two-Spotted Spider Mite	\$7,852
Chastain, Tom	Crop & Soil Science	Seed Shattering - A Key Constraint to Seed Yield in Perennial Ryegrass Seed Production	\$12,500
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Effects of Omega-3 and Omega-6 Fatty Acid Supplementation to Late-Gestation Cows on Performance & Health Responses of the Subsequent Offspring	\$12,500
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Burns	Impacts of Stocking Density on Welfare & Productivity of Replacement Beef Heifers	\$12,500
Field, Jennifer	Environmental & Molecular Toxicology	Determination of the Occurrence of Select Pesticides and Metabolic Derivatives in Finished Wine, Juice, Nectar (bee & flower) and Pollen	\$12,427
Hall, Jean	Biomedical Sciences	Is Periparturient Immunosuppression in Beef Cows Attenuated by Feeding Selenium-Fertilized Alfalfa Hay in the Third Trimester?	\$12,500
Hulting, Andrew	Crop & Soil Science	Expansion of Scouringrush (<i>Equisetum hyemale</i>): Control in Winter Wheat & Chemical Fallow Cropping Systems	\$9,500
Killefer, John	Animal & Rangeland Science	Hops Byproducts as Natural Sources of Antimicrobials for Meat Production	\$12,500
Kleber, Markus	Crop & Soil Science	Biochar as a Cover for Dairy Manure Lagoons: Combining Odor Control with Nutrient Capture	\$12,500
Lee, Jana	Horticulture	Assessing the Influence of Biological & Environmental Parameters on Dispersal Potential of <i>Drosophila Suzukii</i> , an Economically Damaging Invasive Pest of Oregon Fruit Crops	\$12,500
Machado, Stephen	Columbia Basin Ag Research Center	Developing Sustainable Dryland Winter Wheat Production Systems Using Cover Crops in Pacific Northwest	\$12,495

Mallory-Smith, Carol	Crop & Soil Science	Analyzing Semochemical Properties of a Noxious Weed and a Specialist Herbivore to Enhance Weed Control in Perennial Cropping Systems	\$11,875
Miller, Jeffrey	Horticulture	Monitoring Local Parasitoids of Invasive Spotted Wing Drosophila	\$12,500
Murthy, Ganti	Biological & Ecological Engineering	Evaluation of Hydrothermal Liquefaction for Biofuels Production from Algal Biomass & Landfill Leachate Sludge	\$12,500
Myers, Jim	Horticulture	Identifying Clubroot Resistance Germplasm for use in PNW Brassica Production	\$12,489
Ocamb, Cynthia	Botany & Plant Pathology	Seed Treatment for Controlling Seedborne Black Leg in Brassica Crops	\$12,500
Peachey, Ed	Horticulture	Improving Winter Cover Crop Establishment in Sweet Corn Production in the Willamette Valley	\$11,896
Rao, Sujaya	Crop & Soil Science	Oregon Crop Pollinators: Evaluation of Pollen Carrying Capacity and Crop Loyalty for Yield Enhancement	\$12,500
Ream, Wait	Microbiology	Improved Biological Control of Crown Gall Disease on Nursery Plants	\$12,500
Sagili, Ramesh	Horticulture	Evaluating Effects of Agrochemicals on Honey Bee Colonies Pollinating Oregon Crops	\$12,500
Santamaria, Luisa	North Willamette Research & Extension Center	Efficacy of Substrate Calcium Amendments for Control of Phytophthora Root Rot in Ornamental Crops	\$12,500
Shock, Clint	Malheur Experiment Station	Improving Irrigation Efficiency Through Easy Acquisition of Soil Moisture Data	\$7,430
Strik, Bernadine	Horticulture	Targeted Application of Calcium to Berry Fruit to Increase Firmness for Fresh and Processed Markets	\$11,670
Walton, Vaughn	Horticulture	Identifying Lethal Temperatures Targeting Immature Life Stage Control of Spotted Wing Drosophila	\$12,500
Wiman, Nik	Horticulture	Evaluating Candidate Feeding Deterrents for Brown Marmorated Stink Bug as an Alternative Management Strategy	\$12,500
Yang, Wei	North Willamette Research & Extension Center	Fresh Market Blueberry Quality Evaluation Following Mechanical Harvesting With a Hand-Held Harvesting Aid	\$11,088
Zasada, Inga DROPPED	Botany & Plant Pathology	Identification & Localization of Proteins Necessary for the Feeding of the Nematode Globodera Ellingtonae	\$12,200
			\$387,712

2016-18

Researcher	Unit	Project	Amount Awarded
Anderson, Jeff	Botany & Plant Pathology	Suppressing Virulence Factor Production by the Plant Pathogen <i>Pseudomonas syringae</i> Using Natural Plant-Derived Metabolites	\$12,500
Anderson, Nicole	Yamhill County Extension	Spring-applied nitrogen and plant growth regulator effects on seed yield in orchard grass	\$11,830
Barroso, Judit	Columbia Basin Ag Research Center	Evaluation of Occurrence of Glyphosate Resistant Russian Thistle (<i>Salsola tragus</i>) in Northeastern Oregon	\$9,500
Bassil, Nahla	Horticulture	Assessment of Aphid Resistance in Black Raspberry Germplasm and Development of Trait-associated Molecular Markers for Breeding Improvement	\$12,500
Buhrig, William	Malheur County Extension	Can quinoa be a reliable alternative crop in Malheur County?	\$12,412
Chastain, Thomas	Crop & Soil Science	Development of near-infrared reflectance spectroscopy methods for rapid seed moisture testing in grass seed crops	\$12,500
Cherian, Gita	Animal & Rangeland Science	Identification of Early Protein Markers Expressed by Ovarian and Oviductal Surface Epithelial Neoplasias in Laying Hens (<i>Gallus domesticus</i>)	\$12,500
Choi, Man-Yeon	Horticulture	Screening of RNAi Targets to Develop a Novel RNAi-based control method for spotted wing drosophila	\$12,500
Choi, Man-Yeon	Horticulture	Development of RNAi-based bio pesticide to control slugs on agricultural crops	\$12,495
Cooke, Reinaldo	Eastern Oregon Ag Research Center - Union	Impacts of Post-Weaning Growth Rate on Reproductive Development and Maternal Ability (milk production) of Replacement Beef Heifers.	\$12,500
Duggan, Scott	Central Oregon Ag Research Center	Effect of Clipping Heights on Yield and Quality of Simulated Management Intensive Grazing of Irrigated Pasture	\$12,500
Dung, Jeremiah	Central Oregon Ag Research Center	Characterizing the Incidence and Distribution of Bacterial Blight Infestation in Individual Carrot Seeds: Can One Bad Seed Spoil the Whole Seed Lot?	\$12,500
Frost, Ken	Hermiston Ag Research & Extension Center	Molecular Diet Analysis of Insects That Vector Vegetable Pathogens	\$12,170
Good, Stephen	Biological & Ecological Engineering	Assessment of Crop Water Use Through Stable Isotope Analysis	\$12,427
Grevstad, Fritz	Botany & Plant Pathology	Developing a risk index to guide regulatory decisions in biological control for weeds	\$12,110
Hall, Jean	College of Veterinary Medicine	Does Feeding Selenium-Enriched Alfalfa Hay for Eight Weeks Improve Performance and Health of Weaned Beef Calves?	\$12,500
Landgren, Chal	North Willamette Research & Extension Center	Evaluating newer, "softer", and biological aphid control products on Christmas trees	\$12,500
LeBoldus, Jared	Botany & Plant Pathology	A Test Case for Improving Disease Resistance Breeding in Trees	\$12,500

Morris, Lesley	Eastern Oregon Ag Research Center - Union	Informing Fire Management Decisions for Control of <i>Venttenata dubia</i> in Oregon	\$12,500
Morris, Lesley	Eastern Oregon Ag Research Center - Union	Does Soil Conditioning Contribute to the Invasion of <i>Venttenata dubia</i> in Oregon?	\$12,500
Peachey, Ed	Horticulture	Improving Efficiency and Profitability in Winter Squash Production in Western Oregon: The Case of Deficit Irrigation	\$12,489
Qian, Michael	Food Science & Technology	Development of Colorimetric Sensor Arrays Based on Conjugated Electrospun Fibers for Rapid Evaluation of Food Quality	\$12,500
Reitz, Stuart	Malheur County Extension	Internal dry scale and associated bulb rots of onion: an emerging threat to Oregon onion producers	\$12,500
Sathuvalli, Sagar	Hermiston Ag Research & Extension Center	Breeding for resistance to Columbia root knot nematode: Identification of new sources of resistance	\$12,500
Sharpton, Thomas	Microbiology	The Role of the Salmon Gut Microbiome in Resisting Parasitic Infection	\$7,852
Stone, Alex	Horticulture	Improving irrigation efficiency and profitability in winter squash production in Western Oregon: the case of deficit irrigation.	\$11,670
Stone, Alex	Horticulture	Growing the Hull-less Pumpkin Seed Industry in Oregon: Identifying High Yielding Cultivars for Current and Future Markets	\$11,875
Strik, Bernadine	North Willamette Research & Extension Center	Mulching Practices to Improve Plant Growth, Water Savings, and Soil Organic Matter Content During Establishment of Highbush Blueberry	\$12,408
Sullivan, Clare	Linn County Extension	Are current recommendations too high? Examining nitrogen fertilizer needs of dry field peas in the Willamette Valley	\$12,400
Tomas-Nash, Fiona	Fisheries & Wildlife	Relationships of Shellfish Culture and Seagrass Habitats in Oregon Estuaries: Quantification of Impacts and Functional Roles for Regulatory Purposes	\$12,500
Walton, Vaughn	Horticulture	Determining Baseline Levels of Systemic Insecticides in Fruit, Pollen and Nectar of Blueberry	\$12,258
Wang, Guojie	Eastern Oregon Ag Research Center - Union	Cover Crops After Forage Winter Triticale: Species Selection, Forage Production and Quality and Irrigation Requirement in Eastern Oregon	\$12,500
Williams, David	Environmental & Molecular Toxicology	Phytochemical Supplement form Cruciferous Vegetables and Protection of the Fetus form Exposure to Carcinogens: Role of Long Non-Coding RNAs	\$12,500
Wilson, Tracy	Central Oregon Ag Research Center	Utilizing Cover Crops in Carrot Seed Production	\$12,500
Wiman, Nik	Horticulture	Berms for Hazelnut Plantings: A Potential Modernization With Implications for Improved Production	\$12,500
			\$426,396

2017-19

Researcher	Unit	Project	Amount Awarded
Achala, KC	Botany & Plant Pathology - Southern Oregon Research & Extension Center	Fungicide resistance in pear scab: where do we stand today?	\$12,500
Anderson, Nicole	Crop & Soil Science - Yamhill Co	Evaluating New Fungicides for Stem Rust Management in Perennial Ryegrass Seed Crops	\$12,500
Ates, Serkan	Animal & Rangeland Science	Evaluation of seasonal yield, forage quality and persistence of cool-season grass and legume species	\$12,500
Bionaz, Massimo	Animal & Rangeland Science	Effect of Selenium-enriched hay fed to dairy cows during the dry period on the immunity of calves	\$12,500
Brandt, Stephen	Fisheries & Wildlife	The future of Oregon's fisheries	\$12,482
Busby, Posy	Botany & Plant Pathology	Identifying plant genes associated with beneficial microbes	\$12,500
Choi, Man-Yeon	Crop & Soil Science/Horticulture ARS	Genome sequencing to develop RNAi strategy for slug management in the Willamette Valley	\$12,500
Cooke, Reinaldo	Animal & Rangeland Science - Eastern Oregon Ag Research Center - Burns	Feeding essential fatty acids to late-gestating cows to optimize performance...	\$12,500
Cruikshank, Jenifer	Animal & Rangeland Science - Marion Co	A Comparison of Performance Factors among US-genetics and NZ-genetics crossbreeds	\$12,300
DeBano, Sandra	Fisheries & Wildlife - Hermiston Ag Research & Extension Center	Using Molecular Techniques to Enhance Farm Management for Pollinators	\$12,500
Denver, Dee	Integrative Biology	Wolbachia Infection in Plant-Parasitic Nematodes: Advancing a New Biocontrol Strategy	\$12,500
Hooven, Louisa	Horticulture	Particulate pesticide formulations may contribute to exposure and residual toxicity to hone bees	\$12,500
Jung, Jooyeoun	Food Science & Technology	Value-added utilization of fruit pomace fiber for creating molded pulp package	\$12,388
Kovacevic, Jovana	Food Science & Technology - Food Innovation Center	Efficacy of traditional and non-traditional eco-friendly "green" sanitizers on <i>Listeria monocytogene</i>	\$12,500
Kowalewski, Alec	Horticulture	Promoting bee health and nutrition through flowering lawns	\$12,300
Levin, Alexander	Horticulture - Southern Oregon Research & Extension Center	Development and validation of seasonal crop coefficients for Southern Oregon vineyards using the Pas	\$12,500
Lybrand, Rebecca	Crop & Soil Science	Agriculture, Bees, and Soil-- Understanding soil properties to increase ground nesting bee activity...	\$12,500
Mc Donnell, Rory	Crop & Soil Science	Malacoparthenic nematodes associated with the key slug pest <i>Deroceras reticulatum</i> in OR agriculture	\$12,500

Morris, Lelsey	Animal & Rangeland Science - Eastern Oregon Ag Research Center - LaGrande	Prescribed Fire as a Management Opportunity for Control of Ventenata dubia in Oregon	\$12,500
Navab-Daneshmand,	School of Biological, Ecological & Electrical Engineering	Fate of Pathogenic and Antibiotic-Resistant Bacteria in Soil and on Vegetable Crops after Biosolids	\$12,500
Parke, Jennifer	Crop & Soil Science	Biosolarization as a management tool for soilborne diseases and weeds in Oregon nurseries	\$12,500
Pastey, Manoj	College of Veterinary Medicine	Development of a Rapid, Sensitive and Specific Probe-based Real-Time PCR for the Detection of Deform	\$12,500
Pirelli, Gene	Animal & Rangeland Science - Polk Co	How is selenium utilized by forage plants after Se is applied to soils as a fertilizer amendment?	\$12,500
Qin, Ruijun	Crop & Soil Science - Hermiston Ag Research & Extension Center	The effect of biochar and organic manure on crop productivities and soil quality	\$12,182
Sanders, Justin	Biomedical Sciences	Development of a novel assay to improve diagnosis of the liver fluke, Fasciola hepatica, in Oregon	\$12,160
Sathuvalli, Sagar	Crop & Soil Science - Hermiston Ag Research & Extension Center	Use of Somatic Cybridization to Overcome Cytoplasmic Male Sterility in Potato	\$12,449
Schachtschneider, Ch	Animal & Rangeland Science - Umatilla Co	Tradition vs technology: Comparing stress of cattle handled using conventional & traditional methods	\$12,400
Wang, Guojie	Crop & Soil Science - Eastern Oregon Ag Research Center - Union	Mixtures of Winter Cereals and Biennial Legumes for Forages	\$12,500
Wilson, Tracy	Crop & Soil Science - Central Oregon Agricultural Research Center	Nitrogen Release from Cover Crops	\$10,575
Wiman, Nik	Horticulture	Evaluating overwintering behavior of an Asian egg parasitoid of BMSB in hazelnut orchards	\$12,500
Wooster, David	Fisheries & Wildlife - Hermiston Ag Research & Extension Center	Using molecular techniques to determine the importance of predatory invertebrates in consuming potato	\$12,175
			\$383,911

2018-20

Researcher	Unit	Project	Amount Awarded
Ates, Serkan	Animal & Rangeland Science	Milk and Forage Production from Mixed or Spatially Separated Simple and Diverse Pastures	\$12,500
Brander, Susanne	Environmental & Molecular Toxicology	The potential for marine plastic ingestion in a commercial fishery	\$12,500
Buckland, Kristin	Horticulture - North Willamette Research & Extension Center	Quinoa Varieties and Planting Dates for the Willamette Valley	\$11,573
Castagnoli, Steve	Horticulture - Mid-Columbia Ag Research & Extension Center	Implementing alternative management techniques for Spotted Wing Drosophila in cherry orchards.	\$12,500
Cherian, Gita	Animal & Rangeland Science	Nutritional strategies for mitigating breast meat myopathies in meat-type broiler chickens	\$12,500
Choi, Man-Yeon	Horticulture - ARS	Identification of antennal odorant receptors for biological targets to control Spotted Wing Drosophila	\$12,500
Danelishvili, Lia	College of Veterinary Medicine	Discovery of Novel Secreted Antigens of <i>Mycobacterium avium</i> subsp. paratuberculosis as Biomarkers for Johne's Disease	\$12,500
Dreher, Theo	Microbiology	Assessment of the entry of toxic cyanobacteria from lake blooms into irrigation waters	\$12,500
Dung, Jeremiah	Botany & Plant Pathology - Central Oregon Ag Research Center	Development of Epidemiological Models for IPM of Bacterial Blight in Carrot Seed Crops	\$12,500
Feng, Zhenxing	School of Chemical, Biological & Ecological Engineering	From Wastewater Materials to High-Energy-Density Lithium-Ion Batteries	\$12,500
Fu, Elaine	School of Chemical, Biological & Ecological Engineering	Paper-based Sensor for the Detection of Arsenic in Agricultural Water Sources	\$12,483
Hagerty, Christina	Botany and Plant Pathology - Columbia Basin Ag Research Center	Are new SDHI fungicides worth the higher price for controlling stripe rust of wheat?	\$12,500
Halsey, Kimberly	Microbiology	Volatile organic compound production during summer algal blooms in Upper Klamath Lake, Oregon	\$12,500
Hase, Claudia	College of Veterinary Medicine	Development of a zebrafish infection model for Coldwater Disease and investigation of the route of infection and the role of leukocytes in Coldwater disease and Columnaris Disease	\$12,500
Hooven, Louisa	Horticulture	Novel Delivery Method for Insecticidal Proteins	\$12,500
Johnson, Ken	Botany & Plant Pathology	Diagnosis and control of winter squash storage rots in the Willamette Valley, OR	\$12,500
Kwon, Jung	Food Science and Technology - Coastal Oregon Marine Experiment Station - Astoria	Utilization of crustacean shells as a source of natural astaxanthin with anti-obesity effect	\$12,500

Kwon, Jung	Food Science and Technology - Coastal Oregon Marine Experiment Station - Astoria	Efficacy of sea vegetable dulse as a prebiotic crop for metabolic health	\$12,500
Lukas, Scott	Horticulture - Hermiston Ag Research & Extension Center	Reducing Water and Nitrate Losses in Onion Production Systems of the Lower Umatilla Basin	\$12,293
Moretti, Marcelo	Horticulture	Weed control in Organic Blueberry using saturated-steam and organic herbicides	\$12,500
Mundt, Chris	Botany & Plant Pathology	Microbiome-Mediated Resistance of Wheat to the Take-All Disease	\$12,500
Murthy, Ganti	Biological & Ecological Engineering	Exploring nutrient recovery and reuse from nursery wastewater treatment using an algal and biochar based approach	\$12,500
Murthy, Ganti	Biological & Ecological Engineering	Potential of algal biomass as biofertilizer for nurseries	\$12,500
Park, Si Hong	Food Science & Technology	Development of rapid molecular detection methods for foodborne pathogens in fresh produce cultivated in Oregon	\$12,400
Pastey, Manoj	College of Veterinary Medicine	Development of a Rapid, Sensitive and Specific Probe-based Real-Time PCR for the Detection of Chronic bee paralysis virus, Sacbrood virus and Chalkbrood in honeybees	\$12,500
Rondon, Silvia	Crop & Soil Science - Hermiston Ag Research & Extension Center	Effect of Colorado potato beetle control on beneficials and alternative management strategies	\$11,310
Sagili, Ramesh	Horticulture	Understanding and improving honey bee nutrition to mitigate colony losses	\$12,360
Stockwell, Virginia	Botany & Plant Pathology - ARS	RNAseq-guided identification of genes for production of a novel antimicrobial by the biocontrol agent <i>Pseudomonas fluorescens</i> A506	\$12,422
Vining, Kelly	Horticulture	Varietal Improvement in Mint Using Chromosome Doubling	\$12,500
Walton, Vaughn	Horticulture	Two products to reduce Spotted Wing Drosophila egg laying in strawberry and caneberry	\$12,500
Wilson, Tracy	Crop & Soil Science - Central Oregon Agricultural Research Center	Balancing Yield And Forage Quality In Orchardgrass Hay	\$12,450
Wiman, Nik	Horticulture - North Willamette Research & Extension Center	Establishing fertilizer guidelines for non-bearing hazelnut trees	\$12,494
		Faculty Total	\$397,285
		College of Agricultural Sciences Undergraduate student awards	\$12,000
		Grand Total	\$409,285

2019-21

Researcher	Unit	Project	Awarded amount
Anderson, Nicole	Crop & Soil Science - Yamhill Co.	Effects of spring mowing on seed yield and biomass of fine fescue seed crops	\$12,500
Arispe, Sergio	Animal & Rangeland Sciences - Malheur Co.	Creating a Software Package to Launch Cattle Behavior Research	\$10,724
Barroso, Judit	Crop & Soil Science - Columbia Basin Ag Research Center	Weed control with real-time precision spraying systems.	\$12,500
Bionaz, Massimo	Animal & Rangeland Sciences	Control of Oxidative Stress through Gene-Diet Interaction in Oregon Dairy Cows	\$12,500
Brunharo, Caio	Crop & Soil Science	Detecting Herbicide Drift: Using a Multispectral Camera Enabled Drone to Quantify Spectral Reflectance Changes Based on Herbicide Concentrations	\$12,500
Buckland, Kristine	Horticulture - North Willamette Research & Extension Center	Foliar Leaf Disease Detection with Multispectral Imaging	\$12,280
Buckland, Kristine	Horticulture - North Willamette Research & Extension Center	Innovative Powdery Mildew Control in Tomatoes	\$12,421
Curtin, Chris	Food Science & Technology	Evaluating the potential for dry-hopping to introduce unwanted microbes into beer	\$12,095
Curtin, Chris	Food Science & Technology	Does whole-bunch fermentation increase the risk of Pinot Noir wine spoilage?	\$12,458
DeBano, Sandra	Fisheries & Wildlife - Hermiston Ag Research & Extension Center	Investigating the phenology of early season native bees and shrubs to enhance blueberry and fruit tree production in eastern Oregon	\$12,500
Dung, Jeremiah	Botany & Plant Pathology - Central OR Ag Research & Extension Center	Can Honey Bees Serve as Vectors of Bacterial Blight in Carrot Seed Crops of Central Oregon?	\$12,483
Fernandez-Salvador, Javier	Crop & Soil Science - Marion Co.	Exploring Vertical, Soilless Systems for Increased Efficiency in Oregon Strawberry Production	\$12,450
Hagerty, Christina	Botany & Plant Pathology - Columbia Basin Ag Research Center	Limiting yield loss and grower risk with hyperspectral camera technology for early season virus detection in wheat fields.	\$12,000
Harper, Stacey	Environmental & Molecular Toxicology	Nanoscale delivery of pesticides to replace soil fumigation	\$12,500
Heppell, Scott	Fisheries & Wildlife	Stereo Systems Sustaining Species: Modern video technology to support conservation and management of natural resources	\$12,498
Hooven, Louisa	Horticulture	Novel Delivery Method for Crop Protection Agents and Insecticidal Proteins	\$12,500
Jones, Gerrad	Biological & Ecological Engineering	Mitigating antibiotics and antibiotic resistance in agricultural soils following wastewater and biosolids application	\$12,405
Jones, Gerrad	Biological & Ecological Engineering	Developing Chemical-Forensic Tools for Tracking Nitrate Sources of Pollution Across Agricultural Landscapes	\$12,487
Lajtha, Kate	Crop & Soil Science	Introduced earthworms in Oregon: an investigation into the impacts on soil organic matter in agroecosystems	\$12,500
LeBoldus, Jared	Botany & Plant Pathology	Population genomics of <i>Leptographium wagneri</i> : The importance of local versus long-distance dispersal in black stain root disease epidemiology	\$12,500
Levi, Taal	Fisheries & Wildlife	Toward statewide molecular monitoring of pollinators in Oregon	\$12,477
Lukas, Scott	Horticulture - Hermiston Ag Research & Extension Center	Field evaluation of fruit maturity and yield with new watermelon grafting methods to reduce verticillium wilt	\$12,370
Lutcher, Larry	Crop & Soil Science - Morrow Co.	Recommendations for Micronutrient Section of Oregon State University Dryland Fertilizer Guides	\$12,210
Mc Donnell, Rory	Crop & Soil Science	Host preference of the pest slug <i>Deroceras reticulatum</i> among key pasture grasses, legumes and herbs	\$12,500

Moore, Amber	Crop & Soil Science	Reevaluating the SMP buffer pH test for lime recommendations in the Pacific Northwest	\$12,500
Moretti, Marcelo	Horticulture School of Chemical, Biological, and Environmental Engineering	Using Nuclear Magnetic Resonance to Investigate the Mechanisms of Glufosinate Resistance in Italian Ryegrass from Willamette Valley	\$12,500
Navab-Daneshmand, Tala		Stormwater treatment using biochar infiltration columns to reduce antibiotic-resistant bacteria in agriculture irrigation	\$12,500
Ocamb, Cindy	Botany & Plant Pathology	The Role of Seedborne Fusarium in Wheat Root, Crown, and Foot Rot	\$12,500
Peachey, Ed	Horticulture	It's a SNAP: Screening for Herbicide Tolerance to Improve Weed Management in Snap Bean	\$12,227
Penner, Mike	Food Science & Technology	Byproduct-derived high-fiber ingredients for use in formulated foods	\$12,500
Qin, Ruijun	Crop & Soil Science - Hermiston Ag Research & Extension Center	Nitrogen and PGR Application for Seed Yield and Seed Quality in Columbia Basin of Oregon	\$12,491
Qin, Ruijun	Crop & Soil Science - Hermiston Ag Research & Extension Center	Evaluating Imagery Analysis on Nitrogen fertilization for Potato Fields	\$12,433
Rockey, Dan	Biomedical Sciences - College of Vet Medicine	Variable antigen production in Chlamydia abortus from Oregon sheep	\$12,500
Schubiger, Carla	Biomedical Sciences - College of Vet Medicine	Influences of selected herbal supplements and probiotics on innate immunity of marine sablefish in Oregon	\$12,500
Sullivan, Clare	Crop & Soil Science - Deschutes Co.	Which cover crop varieties can improve soil quality in Central Oregon?	\$12,500
Tanner, Christy	Crop & Soil Science - Malheur Co.	Controlling Yellow nutsedge with Cover Crop Competition	\$12,500
Taylor, Anne	Crop & Soil Science	The impact of dairy manure digestate on microbial carbon cycling in soil	\$12,254
Taylor, Anne	Crop & Soil Science	Response of soil N mineralization to temperature	\$12,205
Thompson, Ashley	Horticulture - Wasco Co.	Managing Cork Spot in 'd'Anjou' Pears in Oregon through Foliar Applications of Calcium Chloride and Commonly Recommended Complexed Calcium Alternatives	\$11,561
Torres, Leigh	Fisheries and Wildlife - Marine Mammal Institute	Kick-starting CO2I – the Coastal Oregon Zooplankton Investigation – to understand microplastic and energetic loads at the base of our food web	\$11,886
Verhoeven, Betsy	Crop & Soil Science - Marion Co.	How does continual straw removal affect biological, chemical and physical indices of soil health?	\$12,500
Wang, Guojie	Crop & Soil Science - Union Co.	Developing a Fall-winter Grazing System by Using Fodder Beets	\$12,500
Wang, Guojie	Crop & Soil Science - Union Co.	Cover Crops after Forage Spring Triticale in Eastern Oregon: Extending Grazing Season in Late Fall under Limited Irrigation Water Situation	\$12,500
Wiman, Nik	Horticulture - North Willamette Research & Extension Center	Exploiting vibrational communication of brown marmorated stink bug for detection and management	\$12,500
Wooster, David	Fisheries & Wildlife - Hermiston Ag Research & Extension Center	Enhancing the Efficacy of Molecular Approaches to Agricultural and Natural Resource Issues in Eastern Oregon by Developing a Regionally Targeted DNA Sequence Library	\$12,500
			\$556,415

**ARF Board Members Serving on the
Competitive Grants Committee
1989-2019**

Appleby, Arnold	1995-2018
Arp, Dan	2018-Present
Bailey, Bob Beck,	1995-Present
David Bond,	2017-Present
Barbara Casteel,	2017-Present
Ted Coakley, Stella	2014-2017
Conroy, Robert	2016-Present
Detering, Roger	1989-1997
Dutson, Thayne	2005-2012
Egan, Ellen	1990-1993
Erickson, Steve	1995-2004
Fisher, Ralph	1999-2004
Hathaway, Ron	2011-Present
Hessel, Mike	2010-Present
Kaseberg, Larry	2012-Present
Kvidt, Josh Levi,	1989-2016
Elizabeth	2014-Present
Lyon, Lance	2011-Present
McKinney, Jean	2005-Present
Messerle, Ken	2010-Present
Norris, Logan	2005-2010
Ostlund, Bryan	2010-2015
Price, Steve	2012-Present
Stastny, Ed	2009-2013
VanCleave, Daryl	1989-Present
Walker, Phillip	1989-1995
Weiser, C.J.	2009-2018
	2012-2014