

Grant Support

Extramural (As PI/Co-PI: \$4,860,626)

Provivi, Inc. Development of effective methodologies for screening pheromone formulations for soybean looper; FY 2021; \$100,000

Busch Agricultural Resources, LLC, Low energy spray application irrigation system in Montana barley; FY 2019; \$50,000.

Montana Wheat & Barley Committee, Evaluation of the effectiveness of entomopathogens (fungus and nematodes), and trap crops for the management of wireworms on spring wheat, FY 2019; \$90,000.

Montana Wheat & Barley Committee, Wheat midge management, FY 2019; \$48,440.

Montana Wheat & Barley Committee Assessing agronomic practices to advance cereal production in Montana, FY 2019; \$35,000.

USDA-NIFA/Montana Specialty Crop Block Grant, G. V. P. Reddy (PI), Developing management strategies for pulse insect pest complex in Montana, 2018–2021; Award# 19SCG04712; \$106,662.

Busch Agricultural Resources, LLC, Low energy spray application irrigation system in Montana barley; FY 2018 \$22,640.

Western Region SARE-USDA-NIFA, Professional Development Program (PDP). G. V. P. Reddy (PI), Pheromones as tools for monitoring the insect pests in the Northern Plains Instructive Tools for Agricultural Professional, 2018–2020; Award#2017-38640-26913; \$73,510. This was the highest rated excellent proposal received by the SARE administrative council for the year and funded at the full amount requested.

Montana Wheat & Barley Committee, IPM of wheat stem sawfly and other insect pests of wheat, FY 2018; \$15,000 (As Co-PI \$15,000 received).

Montana Wheat & Barley Committee, Evaluation of effectiveness of entomopathogens, reduced risk chemicals and trap crops for the management of wireworms on spring wheat, FY 2018; \$90,000.

Montana Wheat & Barley Committee, Orange wheat blossom midge management, FY 2018; \$65,968 (As Co-PI \$32,984 received).

Montana Wheat & Barley Committee, Assessing agronomic practices to advance cereal production in Montana, FY 2018; \$35,000.

Busch Agricultural Resources, LLC, Low energy spray application irrigation system in Montana barley; FY 2017 \$34,778.

Montana Wheat & Barley Committee, Orange wheat blossom midge management, FY 2017; \$100,000 (As Co-PI \$50,000 received).

Montana Wheat & Barley Committee, IPM of wheat stem sawfly, FY 2017; \$278,000 (As Co-PI \$44,445 received).

Montana Wheat & Barley Committee, Evaluation of effectiveness of entomopathogens, reduced risk chemicals and trap crops for the management of wireworms on spring wheat, FY 2017; \$90,000.

Montana Wheat & Barley Committee, Assessing agronomic practices to advance cereal production in Montana, FY 2017; \$35,000.

USDA- National Institute of Food and Agriculture (NIFA). G. V. P. Reddy (Co-PD), Montana State University's extension implementation plan for integrated pest management, 2016–2017; FY14 Crop protection and management, Award# 2014-70006-22554, \$8,910.

USA Dry Pea and Lentil Council, New pest in Montana-Pea weevil: Determining weevil population distribution, abundance, and pea damage assessments, FY 2016-2017; \$26,183.

Montana Wheat & Barley Committee, Evaluation of effectiveness of entomopathogens and trap crops for the management of wireworms (Coleoptera: Elateridae), FY 2016; \$45,201.

Montana Wheat & Barley Committee, Implement wheat stem sawfly integrated pest management (IPM) strategies, FY 2016; \$164,128 (As Co-PI \$33,002 received).

Montana Wheat & Barley Committee, Orange wheat blossom midge management, FY 2016; \$95,497 (As Co-PI \$41,352 received).

Montana Wheat & Barley Committee, Assessing agronomic practices to advance cereal production in Montana, FY 2016; \$17,500.

USDA-NIFA/Montana Specialty Crop Block Grant, G. V. P. Reddy (PI), Development of pheromone-based monitoring and mass trapping for pea leaf weevil in pulse crops, 2015–2018; Award#15SCBGPMT0005; \$91,787.

Western Region SARE-USDA-NIFA, Professional Development Program (PDP). G. V. P. Reddy (PI), Conservation and augmentative biological control in the northern plains-providing tools for agricultural professionals, 2015–2017; Award#2014-38640-22175; \$68,182.

Montana Wheat & Barley Committee, Evaluation of effectiveness of entomopathogens and trap crops for the management of wireworms (Coleoptera: Elateridae), FY 2015-2016; \$60,000.

Montana Wheat & Barley Committee, Integrated pest management of wheat stem sawfly, FY 2015-2016; \$292,796 (As Co-PI \$66,128 received).

Montana Wheat & Barley Committee, Improving performance of wheat stem sawfly parasitoids, FY 2015-2016; \$61,037 (As Co-PI \$11,002 received).

Montana Wheat & Barley Committee, Orange wheat blossom midge management, FY 2015-2016; \$98,374 (As co-PI \$15,329 received).

Montana Wheat & Barley Committee, Biological control of orange wheat blossom midge, *Sitodiplosis mosellana* (Diptera: Cecidomyiidae), FY 2015-2016; \$40,000.

Montana Wheat & Barley Committee, Determining the prevalence of the entomopathogenic fungus, *Beauveria* spp., in diapausing wheat stem sawfly (Second year), FY 2015-2016; \$40,994.

Montana Wheat & Barley Committee, Assessing agronomic practices to advance cereal production in Montana, FY 2015-2016; \$35,000.

Montana Wheat & Barley Committee, Trapping click beetles with pheromone traps (Coleoptera: Elateridae)-Second year, FY 2014-2015; \$64,900.

Montana Wheat & Barley Committee, Implementation of wheat stem sawfly IPM, FY 2014-2015; \$272,581 (As Co-PI \$53,940 received).

Montana Wheat & Barley Committee, Orange wheat blossom midge, FY 2014-2015, \$64,504 (As Co-PI \$15,204 received)

Montana Wheat & Barley Committee, Determining the prevalence of the entomopathogenic fungus, *Beauveria* spp., in diapausing wheat stem sawfly, FY 2014-2015; \$40,994.

Montana Wheat & Barley Committee, Parasitoids of the wheat stem sawfly: Augmentation, Impact & Education, FY 2014-2015; \$37,930 (As Co-PI \$2,600 received).

Montana Wheat & Barley Committee, Evaluation of effectiveness of entomopathogens for the management of wireworms (Coleoptera: Elateridae) on spring wheat, FY 2014-2015; \$30,452.

Montana Wheat & Barley Committee, Assessing agronomic practices to advance cereal production in Montana, FY 2014-2015; \$30,000.

- Montana Wheat & Barley Committee, Trapping click beetles with pheromone traps (Coleoptera: Elateridae)-First year, Award#W4604, FY 2013-2014; \$64,900.
- Montana Wheat & Barley Committee, Obtaining diesel pick-up for the survey work at the Triangle areas of Montana, Award#W4618, FY 2013-2014; \$35,000.
- Montana Wheat & Barley Committee, Evaluation of materials practices contributing to economic crop production in Montana, Award#4638, FY 2013-2014; \$30,000.
- Montana Wheat & Barley Committee, Expanded implantation of wheat stem sawfly IPM, Award# W4599, FY 2013-2014; \$210,000 (As Co-PI \$20,530 received).
- Montana Wheat & Barley Committee, Parasitoids of the wheat stem sawfly: Augmentation, Impact & Education, Award# W4616, FY 2013-2014; \$38,000 (As Co-PI \$2,600 received).
- Montana Wheat & Barley Committee, Orange wheat blossom midge management, Award#W4609, FY 2013-2014; \$50,604 (As Co-PI \$1,540 received).
- Montana Wheat & Barley Committee, Integrating multiple agronomic tactics for suppression of severe wheat stem sawfly infestations, Award#W4608, FY 2013-2014; \$52,500 (As Co-PI \$6,000 received).
- Montana Wheat & Barley Committee, Evaluation of various materials and practices contributing toward economic crop production, Award# W4146, 2012-2013; \$30,000.
- USDA- National Institute of Food and Agriculture (NIFA). G. V. P. Reddy (PD), Economic evaluation of sustainable mite and fruit borer management practices on tomato, 2012–2014; FY12 Pest Management Alternatives Program (PMAP), Award# 2012-34381-30732, \$187,920.
- USDA-Animal and Plant Health Inspection Service (APHIS). G. V. P. Reddy (PI), Biological control of Mile-a-minute (*Mikania micrantha*) in Guam, 2012–2013; FY12 CAPS Agreement# 12-8515-1537-CA; \$33,151.
- USDA-NRCS. G. V. P. Reddy (PD), Integration of pheromones and the fungal entomopathogens for the control of the sweetpotato weevil, *Cylas formicarius*, 2011–2014; CIG FY11 Agreement# 69-9251-11-902; \$75,000.
- USDA-Animal and Plant Health Inspection Service (APHIS). G. V. P. Reddy (PI), Introducing the predatory mite *Neoseiulus californicus* (Acari: Phytoseiidae) for the control of the phytophagous mites on Guam, 2011–2012; FY11 CAPS Agreement#11-8510-1302-CA; \$25,495.
- USDA-Western IPM Center. G. V. P. Reddy (PD), Developing an educational program on semiochemical-based IPM methods for weevil pests on Guam, 2011–2012; Award#51120-03885, \$10,000.
- USDA-NRCS. G. V. P. Reddy (PD), Development, *implementation and* economic evaluation of sustainable insect management approaches to control the mites on eggplant, 2010–2013; CIG FY10 Agreement#69-9251-10-880; \$75,000.
- USDA Forest Service. G. V. P. Reddy (PI), Development of monitoring tools for the cycad stem borer, *Dihammus marianarum* (Aurivillus) (Coleoptera: Cerambycidae), 2010–2011; Agreement #10-DG-11052021-246; \$20,000.
- USDA-Animal and Plant Health Inspection Service (APHIS). G. V. P. Reddy (PI), Surveillance of exotic phytophagous mites in Guam, 2010–2011; FY10 CAPS Agreement# 10-8510-1302-CA; \$11,730.
- USDA-Animal and Plant Health Inspection Service (APHIS). G. V. P. Reddy (PI), Introducing the biocontrol agent spined soldier bug (*Podisus maculiventris*) for the control of the cabbage

- cluster caterpillar (*Crocidolomia binotalis*), 2010–2011; FY10 CAPS Agreement# 10-8510-1353-CA; \$10,000.
- United States Environmental Protection Agency, 2009 Strategic Agriculture Initiative Food Quality Protection Act Grant Program, G. V. P. Reddy (PI); Studies on the interaction between the predatory mite and petroleum spray oil, and threshold levels for the control of invasive mites on eggplant, 2010–2011; FY09 Agreement#X8-00T32301; \$50,000.
- USDA-NRCS. G. V. P. Reddy (PD), Integrated control tactics for the New Guinea sugarcane weevil, 2009–2012; CIG FY09 Agreement#69-9251-9-822; \$75,000.
- Western Region SARE-USDA, Professional Development Program (PDP). G. V. P. Reddy (PI), Increasing ecological insect pest management on Guam through building agriculture professionals' understanding of semiochemicals, 2009–2011; Project #09-012; \$60,000. This was the highest rated proposal received by the SARE administrative council for the year and funded at the full amount requested.
- USDA Forest Service. G. V. P. Reddy (PI), Population assessment of *Chromolaena odorata* and evaluation of its natural enemies in Guam, 2009–2010; Agreement #09-DG-11052021-109; \$20,000.
- USDA-NRCS. G. V. P. Reddy (PD), Comparative effectiveness of an integrated pest management system for managing the insect pests on cabbage in Guam, 2008–2010; CIG FY 08 Agreement 69-9251-8-793; \$75,000.
- USDA Forest Service. G. V. P. Reddy (PI), Survey of invasive plant species in Guam, 2008–2011; Agreement #08-DG-11052021-315; \$20,000.
- USDA-Animal and Plant Health Inspection Service (APHIS). G. V. P. Reddy (PI), Biological control of *Mimosa (invisa) diplotricha*, 2007–2008; Agreement #07-08510-1053-CA; \$33,770.
- USDA Forest Service. G. V. P. Reddy (PI), Population assessment of *Lantana camara* and evaluation of its natural enemies in Guam, 2006–2007; Agreement #07-DG-11052021-219; \$25,000.
- USDA Tropical and Subtropical Agricultural Research. G. V. P. Reddy (PI) & R. Muniappan, Biological control of cycad aulacaspis scale in Guam, 2006–2009, Agreement #06-341356786; \$175,067.
- USDA-Animal and Plant Health Inspection Service (APHIS). G. V. P. Reddy (PI), Biological control of the sago palm scale, *Aulacaspis yasumatsui*, (this project was transferred from another individual who moved to different institution), 2006–2007; Agreement #06-08510-0983-CA; \$33,770.
- USDA Forest Service. G. V. P. Reddy (PI), Biological control of ivy gourd on Guam, 2005–2006; Agreement #06-DG-11052021-214; \$20,000.
- USDA Tropical and Subtropical Agricultural Research. G. V. P. Reddy (PI) & R. Muniappan, Bionomics of the chromolaena gallfly, *Cecidochara connexa*, 2005–2008; Agreement #06-341356786; \$186,442.
- USDA Tropical and Subtropical Agricultural Research. G. V. P. Reddy (PI) & R. Muniappan, Biological control of pink hibiscus mealybug in the Mariana Islands, 2004–2007; Agreement #04-341356786; \$149,000.
- Cotton Corporation of India. G. V. P. Reddy (PI), Integrated pest management of cotton bollworms, 1992–1993; \$6000.
- Intramural (\$477,642)*

- Montana Agricultural Experiment Station (MAES) equipment grants, Flote-Tech organic particle soil flotation machine, \$5,800, FY-2014.
- Montana Agricultural Experiment Station (MAES) equipment grants, No-till research plot drill, \$40,000, FY-2013
- Montana Agricultural Experiment Station (MAES) equipment grants, Installation of A/C for the seed lab at WTARC, FY-2013 \$6,350
- Montana Agricultural Experiment Station (MAES) equipment grants, Wintersteiger classic (with equipment for harvesting cereal & rape seed, equipment proposals, \$98,292, FY-2012.
- Montana Agricultural Experiment Station (MAES) equipment grants, Harvest master grain gage monitor system, \$40,000, FY-2013
- Montana Agricultural Experiment Station (MAES) equipment grants, Autoclave and a plant growth chamber, \$26,200, FY-2013
- Hatch Project (USDA), Developing integrated pest management programs for insects in the western triangle agricultural area of Montana, \$7,000, FY2013–2016.
- Multistate-USDA (W3185) Project, Biocontrol of wheat stem saw fly *Cephus cinctus* (Hymenoptera: Cephidae), USDA- Multistate (W3185), \$22,000, FY2013–2017.
- Multistate-USDA (S1052) Project, Biological control of wheat stem saw fly *Cephus cinctus* (Hymenoptera: Cephidae) using entomopathogens, \$22,000, FY2013–2017.
- University of Guam Agricultural Experiment Station (Hatch funds). G. V. P. Reddy, Development of chemical ecology laboratory (GC-MS and GC-FID) at the University of Guam, 2007, \$90,000.
- McIntire-Stennis, Survey and develop management practices for invasive plant species in Guam, \$40,000, FY2009–2012.
- Hatch Project, Development of efficient semiochemical-based control methods for weevil pests on Guam, \$40,000, FY2008–2012.
- Multistate (Regional) Project, Biological control in pest management systems of plants: W2185, \$40,000, FY2009-2012.