



THE NORTHWEST NUTGROWER

Spring Newsletter 2020

SUMMER TOUR 2020

SUMMER TOUR 2020 HAS BEEN CANCELLED

The Board of Directors of the Nut Growers Society met on April 21st and voted unanimously to cancel the 2020 Summer Tour and Trade Show. The event was to be held at the Lane County Fairgrounds with a tour of NGS President, Jason Perrott's Coburg orchard. The board decided to "freeze" the event and have to the same location for August 4, 2021 Summer Tour. President Jason noted "The board felt the health and safety of members, sponsors and vendors are paramount at this unique time in history." This is the first cancellation in the more than 60-year history of hazelnut-oriented summer tours. We are grateful for the support of members, sponsors and vendors and look forward to Winter Meeting.

MAKE SURE YOUR CONTACT INFO IS INCLUDED IN THE 2020 GROWERS HANDBOOK - RENEW YOUR MEMBERSHIP TODAY

First Time Online to Renew Membership

1. Go to www.oregonhazelnuts.org and click "Growers Corner" (upper right hand corner). Click on "sign in".
2. This takes you to the "Membership Log-In" page. Your "User Name" is the number to the top right of this newsletter **mailing label**. Your "password" is "Nutgrower1".
4. On the profile page click on "Securely Renew Membership Now".
5. On the "Membership Dues" page, complete billing information and "submit".

If you previously used the online site

Follow all the steps to the left using your *unique* user name and password if you made any changes.

If you are a brand new member

Go to www.oregonhazelnuts.org and click on the "Growers Corner" (upper right hand corner). Then go to the bottom right of the page to "Haven't Registered Yet?". This will walk you through the sign up process.

If you have any problems with the membership renewal process or want to process over the phone, please contact Juli at 503-582-8420 for assistance.

THE INDUSTRY OFFICE HAS MOVED!



The Industry Office moved to a new location February 24th.
New address:
29100 SW Town Center Loop W., Suite 200
Wilsonville, OR 97070.
New phone number: 503-582-8420.

NGS WINTER MEETING HIGHLIGHTS



2020 NGS President Jason Perrott

The Nut Growers Society is looking forward to working with our new president Jason Perrott for the upcoming year!



Welcome Allan Fulton UC Davis

Allan is an Extension Specialist with UC Davis. He presented the basic science-based info about water and plant nutrition that applies to a diverse geographic area, climatic condition soil types and crops. See the video link below to watch Allan's presentation



2020 Grower of the Year Tim Newkirk - Canby

Congratulations Tim! Sean Denfeld presented the award to Tim and is a long time family friend. Tim has been a vital part of many aspects of the hazelnut industry. We are very grateful for his hard work and guidance. We look forward to many years with Tim.



Annual Winter Meeting Trade Show

This year's trade show was a challenge but it was a win in the end. Having to use an event tent for part of the show was tricky but vendors were wonderfully supportive and the overall feeling was a closer crowd and great conversations. Thanks to OSU staff and everyone for your help!



Access the video recordings of the Winter Meeting agenda items at <https://members.oregonhazelnuts.org/news/491385/NGS-Winter-Meeting-2020-Videos.htm>

STEWARDSHIP PROGRAM - NEW PLATFORM

Thanks to a few of your fellow growers, the pilot testing has been completed on the new Stewardship Program Platform, and is going through final changes. The original plan was to have growers gather at computer centers to enter information but the current climate has obviously changed with the requirements of social distancing. Watch your mailbox for information on how you can get started or continue entering information on your orchard practices for 2019. Additional information will be posted online at the Growers Corner page (www.oregonhazelnuts.org). This is our chance to tell our story!

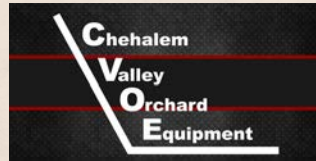
Thank you 2020 Sponsors!



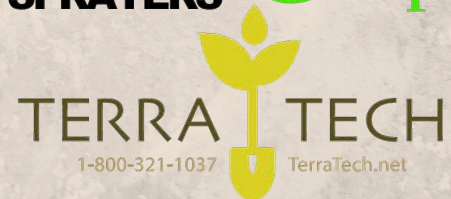
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NOTICE OF THE OREGON HAZELNUT COMMISSION
PUBLIC BUDGET HEARING
June 3, 2020 – Virtual Meeting

Notice is hereby given for a virtual public meeting to be held pursuant to ORS Chapter 576.416(5), Oregon Laws 2003, via a virtual meeting on June 3, 2020. It will be held at 8:00 am and will be with regard the proposed budget for the operation of the Oregon Hazelnut Commission during the fiscal year July 1, 2020 to June 30, 2021.

At these meeting any producer of hazelnuts in Oregon has a right to be heard with respect to the proposed budget, a copy of which is available for public inspection at the industry office and on line in the Growers Corner at oregonhazelnuts.org Any producer unable to attend may submit written comments to Polly Owen at the industry office or via email by June 2, 2020 at 4:00 pm.

For further information contact:

Oregon Hazelnut Commission
29100 SW Town Center Loop W
Wilsonville, OR 97070
Phone 503.582.8420 Fax 503.582.8425
E-mail polly@oregonhazelnuts.org

To join the meeting virtually please email or call the above contact for information. This meeting is accessible to persons with disabilities. Please make any requests for an interpreter for the hearing impaired or for other accommodation for persons with disabilities at least 48 hours before the meeting by contacting staff at the location above.

Summary of Proposed 2020-2021 OHC Budget

Projected Beginning Cash Balance 7/1/20:		\$561,855
Income:		
Assessments (\$20 per ton 52,500 ton crop)	\$ 1,050,000	
Specialty Crop Grant –Stewardship	\$ 87,900	
Interest Income	\$ 170	
Total Income		\$1,138,070
Expenses:		
Personnel Services	\$ 140,706	
Materials & Services	\$ 57,542	
Emergency Fund	\$ 150,000	
Special Payments:		
Oregon Dept of Agriculture	\$ 25,100	
Food Safety/Legislative/Stewardship	\$ 56,500	
OSU Legacy Fund Endowment	\$ 100,000	
Specialty Crop Grant – Stewardship	\$ 87,000	
Research Proposals	\$ 750,475	
Total Special Payments	<u>\$ 1,109,075</u>	
Total Expenses		<u>\$1,368,223</u>
Proposed Ending Cash Balance 6/30/21:		\$331,702

PROPOSAL OVERVIEW FOR 2020-21 FISCAL YEAR

Hazelnut Breeding – Shawn Mehlenbacher - Budget (OHC portion) - \$210,000

Project synopsis:

The OSU hazelnut breeding program develops new hazelnut cultivars for the Oregon industry. We will make new crosses, evaluate seedlings, propagate selections, and evaluate them in replicated trials. The best selections will be released as new cultivars and pollinizers. The emphasis of current efforts is to combine a high level of resistance to eastern filbert blight (EFB) with suitability for the kernel market. A few crosses are made each year with the in-shell and ornamental market in mind. 'Gasaway' resistance is no longer effective at Rutgers University in New Jersey. We are using many different EFB-resistant accessions as parents. We have used simple sequence repeat (SSR) markers to assign resistance to a linkage group (chromosome). Quantitative EFB resistance, expressed as fewer and smaller cankers, will also be used. The incompatibility alleles of cultivars and selections will be identified. New DNA markers and new knowledge of hazelnut genetics will be generated. Competitive grants from the USDA Specialty Crops Research Initiative allow OSU to work with partners at Rutgers University, the University of Nebraska at Lincoln and the National Arbor Day Foundation to produce and test hybrids between the American (*C. americana*) and European (*C. avellana*) species. The four institutions share the goal of expanding hazelnut production east of the Rocky Mountains.

Advanced selection, cultivar & rootstock evaluation – Shawn Mehlenbacher / Becky McCluskey - \$58,115

Project Synopsis:

The advanced selections and cultivar project evaluates the most promising selections that have resistance to eastern filbert blight (EFB). The long term goal has been to develop cultivars with more than one source of resistance to eastern filbert blight. Development of a new variety takes 17 years and is done in two phases. The first phase is an eight-year seedling evaluation that evaluates performance of individual trees grown from seed. A seedling that meets the initial criteria for yield, nut size, shape, early nut maturity, kernel quality, and resistance to eastern filbert blight is advanced to the next stage of testing, hence the name 'advanced selections'.

The advanced selections trials provide essential information in determining whether a selection meets the standards set forth by the breeding program to become a new variety. The trials consists of seven replications of each promising selection, and are evaluated for 8 years, ensuring 5-6 years of yield and nut quality data. Commercial cultivars are included in each trial. A selection has to exceed the commercial cultivar performance over 5 years in order to be considered for new cultivar release. Additional data is gathered on time of flowering and pollen shed, pollen quality, growth habit and tree vigor. All of the cultivars released since 2000 have been included in advanced selections trials, and include Tonda Pacifica, Sacajawea, Yamhill, Jefferson, Dorris, Wepster, McDonald, PollyO, and the pollenizers York, Eta, Theta, Felix, Gamma, Delta, Epsilon, and Zeta.

Development of Genomic Resources for Hazelnut – Kelly Vining - \$50,000

Project synopsis:

The Vining lab works in close collaboration with the Mehlenbacher lab to provide genomics support to the OSU breeding program. Finding and characterizing EFB resistance genes for introgression into breeding lines is a top priority. Previous work based on genetic maps identified multiple genetic sources of EFB resistance. Genome resources are now being developed, with a reference genome based on EFB-resistant cultivar 'Jefferson'. The Mehlenbacher and Vining labs have made improvements to the reference genome, defining chromosomes and refining gene annotations. We are now determining which of the two parents of 'Jefferson' contributed specific gene variants, with the goal of identifying which specific genes control EFB resistance. Genome sequencing has now been done for two additional EFB resistant lines, OSU-1477.047 and OSU-1026.073, and their parents. We will annotate genes in these new

genomes, and compare them to assess gene contributions of the parents. By characterizing the genomes of elite EFB resistant germplasm, we empower the hazelnut breeding program's molecular marker development efforts. With marker-assisted selection, the breeding program will integrate additional genetic resistance sources to achieve broad and durable disease resistance.

Maintenance of Hazelnut Germplasm – Sugae Wada - \$ 36,450

Project Synopsis:

This project works with the hazelnut breeding program to initiate prospective cultivars into *in vitro* culture, store and maintain cultivars for the breeding program, and propagate new cultivars in sufficient numbers for release to micropropagation nurseries. The development of improved *in vitro* culture techniques has allowed for faster availability of newly released cultivars from the breeding program. With the closing of the NCGR tissue culture laboratory, this project will be the only lab to maintain the germplasm and become the main backup for cultivars and promising selections. As the first objective, cold storage for 17 cultivars (in plastic tissue-culture bags held at refrigerator temperatures) is now established, and these cultures will be monitored periodically and regrown as needed to maintain viability. These *in vitro* cultures will also be available for rapid propagation as needed. For the second objective, new selections and additional cultivars, as requested by Dr. Mehlenbacher, will be initiated into sterile culture, screened for any bacteria and fungi, propagated and stored with the other 17 cultivars. A final objective will be multiplying and providing large numbers of several cultivars and selections for distribution to nurseries during new cultivar releases or when new licenses are granted. This micropropagation project will be a secure back up for the hazelnut commission's research priority categories: 'Develop & Evaluate New/Better Cultivars Suitable for the Oregon Industry' and 'Develop EFB Resistant Cultivars'; and provide 'Variety Identity Preservation'.

EFB & Mold Management in Hazelnuts – Jay Pscheidt - \$80,081

Project Synopsis:

Our overall goal has been to develop the tools needed to manage Eastern Filbert Blight (EFB), understand the limitations of these tools and integrate them into an effective disease management program for hazelnut growers of the Pacific Northwest. We plan to continue testing new fungicides which may lead to new (cheaper?) registrations for the hazelnut industry. Testing of organically acceptable materials is also necessary to find effective products to meet a growing demand for organic hazelnuts. Investigating new application methods to save on application costs will also be initiated. A long term pruning trial has shown that after 4 years, there has been no significant difference in yield between non-pruned and pruned trees, however, the non-pruned trees look terrible. Eventually the yield will drop in these trees, but when?

Our overall goal for mold research is to come up with grower recommendations about tree management, harvest and nut handling that will reduce the potential for mold development in the industry prior to processing. Correlation of grower practices with defect data from processors may help lead us in new directions. Fungicides for mold management will be tested at our research site and on a commercial farm to see if they might be effective at reducing this disease.

Sustainable Management of Filbertworm – Vaughn Walton / Betsey Miller - \$57,200

Project Synopsis:

This proposal aims to improve available options for sustainable management of filbertworm (FBW) in hazelnut. First, we propose to optimize rearing of FBW cultures. These cultures will form the basis for research proposed here and in other grants related to FBW management. Second, we aim to identify key volatiles that can be used as attractants for female moths. The only current attractant (mating pheromone) attracts only males, leaving many limitations in our management system. Female-attractant volatiles can be used to determine risk of damage by monitoring female flight activity, but can also potentially be used as a behavioral tool. First, we seek to isolate and identify volatile organic compounds emitted by nuts and/or leaf material of intact hazelnut and oak seasonal plant material. Volatile collections will be made during two distinct diurnal/daily periods. Volatiles will be extracted from plant materials using adsorbent

sampling, isolated and identified using gas chromatography and tested for activation of adult FBW orientation within flight tunnel experiments and electro-antennogram detections. Ultimately, the volatiles can be used for improved monitoring and management of FBW.

Effect of Flailing on Natural Enemies of Filbert Aphid – Walton/Miller - \$7,446

Project Synopsis:

This proposal aims to add a second season of field data to determine the effects of flailing on the primary natural enemy of filbert aphid, *Trioxys pallidus*. Collection of data from the 2019-2020 field trial is currently underway. Aphid infested leaves were collected from late October through November from an orchard selected for large populations of filbert aphid and *T. pallidus*. Leaves were examined in the lab for presence of overwintering parasitized aphids. Parasitized aphids were distributed into organza bags and subject to one of three flailing treatments: winter flailing (December), spring flailing (March) and no flailing. Flailing was simulated with mechanical suctioning and chopping of the leaves into <1-inch pieces. The organza bags were placed in an orchard row in December 2019. They will be collected in May 2020 and observed for emergence of *T. pallidus*. Reliable results from field trials require at least two years of data. Therefore, we propose to repeat this field experiment in the 2020-21 funding cycle.

BMSB Management & Damage – Walton/Miller - \$11,520

Project Synopsis:

This proposal aims to improve an understanding of BMSB damage in key new release hazelnut cultivars. We also seek to isolate and identify key volatile organic compounds emitted by nuts and/or leaf material of specific cultivars of early selection intact hazelnut cultivars. These collections will be made during two distinct diurnal/daily periods. Volatiles will be extracted from plant materials using adsorbent sampling, isolated and identified using gas chromatography and tested for activation of adult BMSB orientation within ventilated controlled exposure experiments and electro-antennogram detections. Ultimately, we hope to understand whether BMSB preferentially attacks certain cultivars, including new variety releases and to determine if some of the volatiles can be used for improved management of BMSB.

Non-structural Carbohydrate Dynamics in Hazelnuts – Nik Wiman - \$41,214

Project Synopsis:

Non-structural carbohydrates (NSC) are highly active sugars that are the energy source for all plant physiological activity. That means they affect vegetative growth, drought tolerance, defense and reproduction (flowering, nut set, kernel fill). NSC budgets can be correlated with plant nutrition, irrigation and other cultural practices to better manage trees for maximum carbohydrate production and improved production. The initial focus of the project is to develop a background “control” profile for NSC and analyze these data in context of orchard nutritional status and productivity of individual orchards in similar manner to what is under development for CA nut trees (walnut, pistachio, and almond). Our goal is to monitor NSC season-long in hazelnut orchards and relate NSC to nutritional status of trees, irrigation regimes, and orchard yield. Sampling will be conducted at 20-40 bearing and 3-4 non-bearing orchards, selected to represent maximum geographic range and age of trees. Orchards will represent new hazelnut cultivars with resistance to eastern filbert blight (EFB). Each orchard will be visited monthly for sampling. Trees will be selected from blocks consisting of discrete harvest units so that the total green and merchantable yield can be attained from the grower. Current-year shoots will be sampled into the dormant season and the number of pistillate (potential yield) and staminate flowers will be counted on each branch collected for NSC analysis. A portion of each collected shoot will also be prepared for nutrient analysis. Data will relate NSC to nutrient status and yield and will ultimately help improve production practices.

Precision Irrigation for Improved Performance in Hazelnuts - Nik Wiman - \$37,243

Project Synopsis:

Most new hazelnut plantings are irrigated but there is little consensus in the industry on best irrigation practices or even whether there is a clear benefit to irrigation. We have established plantings for long-term

irrigation research at the North Willamette Research and Extension Center where we are examining the effect of different irrigation methods and rates on vegetative growth and nut production. The 2019 season was the first season that we had significant yield and we were able to examine the effect of irrigation on nut production on 4th leaf trees on the drip and full coverage irrigation plots. In 2020, we established benefits of irrigation for the first major nut crop. In 2020 and beyond the research only gets more exciting as the trees mature and produce more nuts. Trees under full coverage irrigation are now starting to touch/compete, so we also have opportunity to reexamine the double density production model under irrigation. We have data covering all inputs and individual tree growth and production which will provide improved economic enterprise budgeting for the industry. Our latest plot, established in 2018, incorporates full coverage (microfan), drip, subsurface drip, and dry land trees in one plot with a statistical design that will allow greater confidence in comparing success of different irrigation rates and methods. We will be harvesting our drip irrigation plot, our full coverage irrigation plot, and our new plot in 2020.

Revised Aphid Control Tactics – Nik Wiman - \$30,961

Project Synopsis:

Aphids are increasingly being treated in hazelnuts. Some growers have expressed the opinion that biological control is not working as well as it used to, and other growers have expressed the thought that the aphid action thresholds, established long ago on obsolete varieties, are no longer relevant and should be decreased. The thresholds (April: 20/leaf, May: 30/leaf, June: 40/leaf, and July: 40/leaf) were originally developed to prevent sooty mold and poor fill of kernels. Poor fill results when aphids deplete nutrient and carbohydrate resources supporting the nut clusters and sooty mold reduces photosynthesis. There is no doubt that the action thresholds need to be revisited. When the thresholds were originally developed, the only aphid species affecting hazelnuts in Oregon was the filbert aphid, *Myzocallis coryli*. Since that time, we have a new species, *Corylobium avellanae*, the hazelnut aphid, which has established throughout the Valley and tends to do more feeding on the husks, and potentially has more of a detrimental effect on nut quality. We also have new cultivars that may have different susceptibilities to aphids. Furthermore, new management techniques should be explored to improve aphid management so that we can reduce dependence on insecticides. The goals of this project are to re-examine the relationship between aphid infestation level and nut quality, evaluate novel soft management strategies for aphids, and evaluate the impact of biological control on both aphid species.

Long-term Pruning & Spacing Trial for New Hazelnut Cultivars – Wiman - \$15,954

Project Synopsis:

Optimal pruning and spacing of new hazelnut cultivars for maximum production is a topic that is likely to persist in the industry for the foreseeable future. It is very difficult to evaluate pruning practices on-farm because typically growers are using similar tactics on different cultivars in different blocks and it is difficult to compare results without introducing site bias. Often, labor crews are used for pruning and so the grower may not have an accurate picture of what was done. Further, costs of management are not easily linked to pruning tactics in on-farm trials. In this project we propose to create a long-term trial to evaluate hazelnut production costs and returns on trees that are planted in different spacings and are trained differently. We propose to evaluate long-term costs and benefits of hedgerow plantings, minimal pruning after initial training, annual pruning, multi-stem plantings (no sucker control), and mechanical pruning. We will select two to three new hazelnut cultivars to be subject to these treatments in a randomized block design at the North Willamette Research and Extension Center. We will monitor all inputs including time spent pruning and controlling suckers, and we will track annual vegetative growth. As the trees mature we will monitor yield. The main product of this research will be economic analysis for these different planting and training regimes. We seek OHC support to get this project established, with the idea that the plot will be financially self-funded through nut sales as the trees come into bearing.

Sucker Control in Hazelnut – Marcelo Moretti - \$22,741

Project Synopsis:

This project will further the findings of research funded by OHC since the 2017 growing season by expanding the research questions on sucker control. Previous research under this title identified effective herbicides and tank-mixtures to control suckers in hazelnuts. In 2020, we will continue evaluation of spray volume, nozzle selection, drift reduction (Objectives 1 and 2). The third objective is to continue studies on the impact of number and frequency of applications early in the season for sucker control. Although the first sucker control event will impact sucker control for the rest of the season, it is unclear when to initiate these applications. Sucker emergence is not uniform; a delayed application may reduce treatment efficacy. Finally, in Object 4 we will conduct the final year of the 2,4-D drift study in hazelnuts. It has been ongoing since 2018 on the OSU Vegetable Research Farm just east of Corvallis.

Propagation Techniques and Herbicide Crop Safety – Marcelo Moretti - \$23,916

Project Synopsis:

This project was initiated in 2018 with field trials at OSU Lewis Brown Farm in Corvallis. One thousand layered hazelnut plants and one thousand micropropagated plants were set out in the field in early spring 2018. Trunks were kept as bare trunk, painted, or with trunk guard and herbicides applied once in mid-summer with or without adjuvants. No injuries have been observed to date, in contrast to growers' reports of crop injury during initial years. For 2019, the methods proposed were revised to address growers' questions and induce crop damage for additional microscopy studies. For the 2020 year, research will focus on glufosinate (Rely 280) trunk injury because of reports of trunk damage with this herbicide in hazelnuts and other tree nut crops. The questions to be addressed are herbicide rate, number of applications, and adjuvant effects on crop safety with bare trunks, paint, or trunk guard in field grown hazelnuts. In a second study using potted plants, herbicide damage will be induced to allow the study of trunk damage and creation of an image data-base to help growers recognize damage.

This proposal aims to initiate collaborative research between two OSU research labs, the Moretti and Wiman Labs, to study hazelnut bark response to management practices.

New Herbicide Tools to Control Italian Ryegrass in Hazelnut – Moretti – \$15,000

Project Synopsis:

Herbicide resistance has increased the threat of Italian ryegrass in hazelnut orchards. Currently, Oregon Italian ryegrass populations show resistance to all labeled post-emergent herbicides. Growers rely on pre-emergent herbicides, and especially indaziflam (Alion), as the principal tools to manage Italian ryegrass. Reliance on a single chemical increases the probability of an additional case of resistance in the foreseeable future. This project has two objectives.

Objective 1, to evaluate Italian ryegrass control with all pre-emergent herbicides labeled for hazelnuts.

Objective 2, to continue crop safety evaluations of new herbicides in hazelnuts. This work will generate the required data for a new registration. In 2019, clopyralid (Stinger) was selected by IR-4 for residue studies based on adequate crop safety results identified in this project. However, two years of data safety are required by registrants. We will continue the fields studies with smetolachlor (Dual Magnum), pronamide (Kerb), clopyralid (Stinger), and quinclorac (Quinstar 4L).

RF for Efficient Hazelnut Drying & Pasteurization – Yanyun Zhao - \$39,500

Project Synopsis:

Radio frequency (RF) dielectric heating is a novel heating technology that utilizes electromagnetic energy at 27 MHz, a frequency lower, but penetration longer than microwave heating. This technology provides high heating efficiency and uniformity, and is also environmental-friendly. RF heating has been

commercially utilized for drying agricultural goods and food products. Recently, RF has been studied as a pasteurization method for various commodities, including tree nuts. The PI, Dr. Yanyun Zhao's is an expert in RF technology and her lab has been studying RF drying and pasteurization of Oregon hazelnuts since 2017. It was found that RF drying of inshell hazelnuts can significantly shorten drying time, reduce lipid oxidation and retain high bioactive compounds (vitamin E and phenolics) in comparison with conventional hot-air drying. PI has reported these findings to the Oregon hazelnut processors, and is encouraged to continue the studies for moving this technology for potential commercial applications. For reaching the goal, more questions need to be answered, such as what are the most suitable strategies to integrate RF into current hazelnut processing line, how to achieve drying and pasteurizing simultaneously, and what are the best RF treatment conditions. Unfortunately, there is lack of a RF equipment at OSU and in Oregon. PI's lab had to travel to WSU in Pullman, WA using their almost 2 decade old of RF unit, which has significantly restricted research capability, as well as adding extra cost. With this proposal, PI requests a small amount of OHC fund for purchasing a pilot-scale RF unit that will be placed at OSU Food Science pilot plant. With the acquire of this equipment, PI will collaborate closely with hazelnut processors for developing best strategies and protocols to implement RF for drying, pasteurizing and/or roasting hazelnuts that retain the best quality and microbial safety. These efforts will elevate Oregon hazelnut industry's competition in global market. In addition to serve the need of this project, the RF unit will also be used in teaching food processing/engineering classes and allow other usage in heating, drying and pasteurizing various agricultural and food items for supporting OSU's mission of research, outreach and education.

IR-4 Pesticide Residue Trials: Clopyralic – Dani Lightle - \$4,350

Project Synopsis:

Hazelnut is an important commodity in Oregon, with acreage and production steadily on the rise. However, due to the relatively small number of acres nationally, they are considered a minor, or specialty, crop. Because of the low acreage, pesticide manufacturers will generally not register materials on minor crops because the manufacturer return on investment is low relative to the registration costs. However, some manufacturers are willing to add hazelnut to their labels if the necessary food residue data required for registration is supplied to EPA by the IR-4 program.

The objective of the Pesticide Registration Research Center, located at OSU/North Willamette Research and Extension Center, is to conduct magnitude of residue field trials which develop data that lead to the registration of crop protection products for minor crops (specialty crops) of importance to Oregon and Pacific Northwest growers. The Pesticide Registration Research program at NWREC works closely with IR-4 to ensure that the required residue data, collected under strict Good Laboratory Practices (GLPs), will be available to support the registration of new materials for Oregon specialty crops.

In September 2019, the national IR-4 program prioritized funding for four magnitude of residue field trials to support the registration of clopyralid (Stinger) in hazelnuts. Because Oregon produces nearly all domestic hazelnut, all four of those trials will be conducted by us in the Willamette Valley. These residue field trials are the final, but necessary, step to collect data required to receive a clopyralid label.

Cover Crops for Soil Health & Carbon Sequestration in Young Hazelnut Orchards – Phillips - \$11,741

Project Synopsis:

The Oregon Hazelnut Industry strives to be environmentally sympathetic and includes promotion of soil health among its top-ranked priorities. However, limited plant cover in young orchards can result in gradual loss of soil organic matter and declines in soil biological activity. This project will evaluate whether soil health can be improved in young orchards by evaluating the impacts of five cover crop species on a suite of soil health indicators. This project is an add-on to a recently-funded NRCS trial (PI Moretti) that will evaluate cover crop traits for use in young orchards, including growth timing and cover, pollination habitat suitability, weed

suppression, and susceptibility to hazelnut-listed herbicides. We propose to examine soil impacts of these cover crops managed for perennial cover in orchards 2-4 years old. We will focus on two questions: 1) do cover crops improve soil carbon and other soil health indicators? and 2) how do the cover crops impacts soil moisture? The first question will be evaluated from spring measurements of soil health indicators using the Cornell Assessment of Soil Health (CASH) protocol. Measurements include microbial activity, rates of nitrogen mineralization, total and microbial-available carbon concentrations, aggregate stability and water-holding capacity, soil permeability, and basic soil fertility measures. Cover crop impacts on soil moisture, which effects both weed establishment and competition with trees, will be evaluated by monitoring soil to water content beneath cover crops on a monthly basis. This work will assess soil health in young orchards that are particularly vulnerable to soil degradation.

Contact any of the Commissioners below or the Industry Office to discuss the proposed budget and assessment changes.

Current Commissioners:	Garry Rodakowski, Chair	Vida	(541) 554-9449
	Michelle Armstrong, Vice Chair	Woodburn	(503) 981-3521
	Tim Newkirk, Treasurer	Canby	(503) 810-1692
	Matt Schuster	Gervais	(503) 810-4731
	Sean Denfeld	Hillsboro	(503) 329-1265
	Tristan Gingerich	Canby	(503) 651-3742
	Dan Keeley	St Paul	(503) 633-2838
	Cindy Christenson	Dayton	(503) 435-7923

Hazelnut Industry Office: (503) 582-8420
If you wish to email comments, please send by 4 pm
June 2, 2020 to polly@oregonhazelnuts.org
Comments will be forwarded to all commissioners.

Public Budget Hearing – June 3, 2020 – 8 am
Virtual Hearing followed by OHC Meeting

To join the virtual hearing and meeting, please email polly@oregonhazelnuts.org
or call 503.582.8420 for information.

Nut Growers Society of Oregon,
Washington & British Columbia
29100 SW Town Center Loop W., Suite 200
Wilsonville, OR 97070

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Upcoming Events



Bruck Orchard, Spring 2020

2020 NGS Membership:

If you are not already a 2020 Member, be sure to renew your membership before May 30 to be included in the 2020 Growers Handbook Roster! If you are not sure about your membership status - the Industry office is here to help. Give us a call at 503-582-8420.

Industry Calendar

May 20 - Hazelnut Marketing Board Budget Meeting at 9:00 am - Zoom conference

June 3 - Oregon Hazelnut Commission Annual Public Budget Hearing & Meeting at 8:00 am - Zoom conference

*For Zoom video conference link or call-in information for any of the meetings above, please contact
polly@oregonhazelnuts.org or call 503-582-8420.*