



A bi-monthly newsletter to faculty/staff/retirees of WSU Long Beach, Mt. Vernon, Puyallup & Vancouver

### *Message from the Director*

The Washington State University Master Gardener program celebrated its 30<sup>th</sup> Anniversary in July. This anniversary was recognized with a Founders Day celebration that included nationally-known speakers, a recognition banquet, the grand opening of the children's garden at WSU Puyallup, and horticultural tours.

The Master Gardener program has been replicated in all other states and some other countries. The idea for the Master Gardener program was inspired by Area Extension Agents Bill Scheer and David Gibby in Pierce and King Counties. Public demand for information about plant problems was so intense that it made educational programming for either educator virtually impossible. They decided to recruit and train volunteers to serve the urban audience. In cooperation with specialists at WSU Puyallup, curricula and training sessions for the volunteers were developed. Initially, training sessions were to be held eight hours per day, one day per week for five weeks.

Today, the training session has been expanded to at least 60 hours. There are now 3,100 volunteers in most Washington Counties. They staff clinics in 105 communities at 171 locations. Each volunteer is required to give back a minimum of 50 hours of free public service in horticultural assistance to his or her community. They are grass-roots educators who extend the service of the University to more than 300,000 people per year. The Master Gardener program has become one of the most visible programs for Extension in Washington.

The Pierce County Master Gardener Foundation has been very active at WSU Puyallup and WSU Mount Vernon. They have donated thousands of hours of time and materials to make the demonstration gardens valuable additions to the Westside Research and Extension Center.

Congratulations to the Master Gardener program for their first 30 years. Find the entire history of the program in Washington online at <http://mastergardener.wsu.edu> and click on Master Gardener Official History.

--Jim Kropf

## WEST PROFILE

More than Mushrooms! New WSU Puyallup Mycology Program Intends to Catalog the Fungi in the Pacific Northwest

The new Mycology program at the Puyallup REC was started by **Dr. Dean A. Glawe** in 2002. Mycology is the science of the biology and classification of fungi, some

of the most common and diverse organisms on Earth. Estimated to include 1.5 million species, fungi are important as plant and animal pathogens, decomposers, and symbionts. They also are important sources of pharmaceuticals, and are used to produce diverse foods such as breads, wines, and soy sauce. WSU has been a leader in mycological research and education since the early 20<sup>th</sup> century when F.D. Heald founded the Department of Plant Pathology. The new program at Puyallup complements other Mycology and Plant Pathology programs throughout the state as well as adding a western Washington focus and other new elements that help maintain and enhance the University's tradition of excellence in Mycology.

The Program includes two major components. The first is to revise and update the *Host Fungus Index for the Pacific Northwest*. This essential reference, well-known to plant pathologists and other scientists, was produced more than 30 years ago, and has become severely outdated. It includes only about 20% of the species of fungi thought to occur in the region, and is weak in its coverage of fungi west of the Cascades. Dr. Glawe is using the *Index* as the basis for a new online database on Pacific Northwest Fungi. As part of this effort, Dr. Glawe is helping launch the Pacific Northwest Fungi Project, a new consortium of mycologists that will work together to survey the fungi of the region. In May, 2003 the Project held a foray and database workshop attended by scientists from Alaska, British Columbia, Idaho, and Washington (see the "What's New" section of the website for the Department of Plant Pathology for details and the obligatory group photo). The next foray and meeting is being planned for October of this year and likely will be held in northern Idaho.

The second major focus of the program is research on Pacific Northwest species of the Erysiphales, the fungi causing powdery mildew diseases. So far, Dr. Glawe has established that there are more than 100 species of powdery mildew fungi in the region instead of the 21 listed in the *Index*. Several species are new discoveries for North America. He is publishing a series of papers on newly-found species in the American Phytopathological Society's online journal *Plant Health Progress*. He expects to publish a guide to the species in the region within the next several years, and to follow that work with a book on the Erysiphales of North America. This will be the first comprehensive reference on these important plant pathogens for our continent. Dr. Glawe also is a founding member of the WSU Powdery Mildew Working Group. The Group includes eight scientists at WSU with research and extension programs on biology and control of powdery mildew diseases, and is one of the (if not the) largest groups of powdery mildew researchers in the world.

Dr. Glawe would like to remind everyone that, "If it's a powdery mildew, Dean wants it!" In 2002 Master Gardeners and others supplied him with more than 300 specimens, which have been extremely useful. Anyone interested in providing samples for research (any powdery mildew on any plant, from anywhere) can contact Dr. Glawe ([glawe@wsu.edu](mailto:glawe@wsu.edu)) for information on how to participate.

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## PRESENTATIONS/MEETINGS/TRAININGS/INVITATIONS

Art Antonelli assisted Carrie Foss and Jenny Glass with the Advanced Master Gardener Training classes for Veteran Master Gardeners of King and Pierce County at WSU Puyallup on May 6. Art and Carrie also guest lectured at UW Seattle for Dr. Bob Gara's Urban Forestry Class on May 29.

Art Antonelli was a judge at Rogers High School Senior Board on May 14, and he gave Master Gardener Training in Ellensburg on June 12. Together with Carrie Foss on

July 24, Art gave a Pesticide Training Workshop in Woodinville for the Park Service. July 7-18 **Art Antonelli** taught Entomology 460 "Insects for Teaching" to school teachers at WSU Puyallup.

**Dean Glawe** gave the following presentations:

"Preliminary assessment of taxonomic diversity of Erysiphales (powdery mildew fungi) in the Pacific Northwest," at the 2003 meeting of the Pacific Division of the American Phytopathological Society, Kona, HI, June 23.

"Overview of the Pacific Northwest Fungi Project and the Substrate-Fungus Database for the Pacific Northwest," to the Workshop on Taxonomic Databases, Pacific Northwest Fungi Project Foray, UW Pack Forest, May 18.

"Biology of Powdery Mildew," to the Wine Grape Workshop sponsored by Coastal Cascadia Winegrowers, WSU Pullman, and WSU Mount Vernon, May.

"The Natural History and Biological Basis for Control of Powdery Mildew Fungi," two guest lectures presented to the seminar on Symbiosis, Department of Biology, UW Seattle, April 13. "The Natural History of Powdery Mildews," to the Snohomish County Master Gardeners, Everett, April 12.

"The Pacific Northwest Fungi Project and Reflections on the Nature of the Fungal Species," presented to the Department of Plant Pathology, WSU Pullman, April 7.

**Dean Glawe** was co-organizer of the "Pacific Northwest Fungi Project Foray and Taxonomic Database Workshop" held at the UW's Pack Forest Training Facility, May 16-18. Twenty-five attendees from AK, BC, ID, OR, and WA met to collect fungi, discuss taxonomic databases, and continue the work of organizing the Pacific Northwest Fungi Project, which coordinates multi-state research to develop an all-taxa inventory of the region's fungi.

**Dean Glawe** and **Rita Hummel** presented the workshop "Bud Blast Disease of Rhododendron," to Master Gardener volunteers in the WSU Puyallup Mycology Program at the Rhododendron Species Foundation Garden, Federal Way, April 10.

On July 24, members of WSU's Vegetable Pathology Team presented a workshop on the diagnosis of diseases affecting chenopodiaceous and cruciferous vegetables in northwestern Washington. The workshop was held at WSU Mount Vernon and taught by **Lindsey du Toit, Jenny Glass and Debbie Inglis**. Thirty people representing various agricultural companies, WSU Cooperative Extension, the WSDA, and Master Gardener coordinators spent the day in lectures and laboratory sessions receiving hands-on training with diseased plant specimens, pathogen cultures, and microscope facilities. Funding for the workshop was provided by the WSU Center for Sustainable Agriculture and Natural Resources; Ed Adams, WSU Extension Agriculture and Natural Resources Program Leader, and the WSU Safe Food Initiative Vegetable Seed Pathology Extension Program.




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## PUBLICATIONS

Gilmour, J.T., C.G. Cogger, L.W. Jacobs, G.K. Evanylo, and D.M. Sullivan. 2003. Decomposition and plant available N in biosolids: Laboratory studies, field, studies, and computer simulation. *J. Environ. Qual.* 32:1498-1507.

**Glawe, D. A.** 2003. First report of downy mildew of chives caused by *Peronospora destructor* in the Pacific Northwest. Online. *Plant Health Progress* doi:10.1094/PHP-2003-0512-01-HN.

**Glawe, D. A.** 2003. First report of powdery mildew of *Magnolia* caused by *Microsphaera magnifica* (*Erysiphe magnifica*) in the Pacific Northwest. Online. *Plant Health Progress* doi:10.1094/PHP-2003-0512-02-HN.

**Glawe, D. A., R. Hummel, and G. Jack.** 2003. First report of powdery mildew of *Kalanchoe blossfeldiana* caused by *Sphaerotheca fuliginea* in the Pacific Northwest. Online. *Plant Health Progress* doi:10.1094/ PHP-2003-0417-02-HN.

A new bulletin "Temperature Modification Techniques for the Growing Environment in the Puget Sound" prepared by the volunteers of the Skagit Veg Trials and **Dr. Andy Anderson**, Skagit Veg Trials director is now available. Information on transplanting, raised beds, solar mulch, cloches, plastic mulches and combined strategies for modifying soil temperature is included. For copies contact [andersonw@wsu.edu](mailto:andersonw@wsu.edu)

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## FIELD DAYS & TOURS

<i>2003 Field Day Schedule</i>				
DATE 2003	EVENT	LOCATION	TIME	RESPONSIBLE FACULTY
August 9	WWFRF Harvest Day	WSU Mount Vernon	11:00 a.m.- 2:00 p.m.	Gary Moulton
August 12	Turfgrass Field Day	OSU Corvallis	11:00 a.m.- 3:00 p.m.	Eric Miltner Gwen Stahnke
August 14	Vancouver Field Day	WSU Vancouver	1:00 p.m. – 4:00 p.m.	Blair Wolfley
August 21	Potato Field Day (ice cream social to follow 5:30-6:00)	WSU Mount Vernon	4:00 p.m. – 5:30 p.m.	Debbie Inglis Dyvon Havens
August 21	Cucumber Field Day	WSU Mount Vernon	6:00 p.m. –	Tim Miller

			7:30 p.m.	Debbie Inglis
September 13	WWFRF Harvest Day	WSU Mount Vernon	11:00 a.m.- 2:00 p.m.	Gary Moulton
October 11	Orchard Field Day, Open House	WSU Mount Vernon	8:30 a.m.- 3:00 p.m.	Gary Moulton

The Small Fruit Breeding Program held three field days, a Strawberry Field day on June 10 at WSU Puyallup, a Raspberry field day on July 10 at WSU Puyallup, and a Small Fruit Open House on July 24 at WSU Mount Vernon. The field days were attended by growers, propagators, processors, and researchers. **Pat Moore and Peter Bristow** spoke at the field days at Puyallup, and **Pat Moore, Peter Bristow, Tim Miller and Andy Anderson** spoke at the open house at Mount Vernon.

WSU's first ever field day for small-scale and urban area farmers in the greater Puget Sound region was held on July 16 at WSU Puyallup. The Small Farms Field Day was an opportunity for growers to see the new field research trial plots at the facility that are specifically to benefit small-scale and organic growers. Presenters were **Craig Cogger, Dave Muehleisen, Andy Bary, and Marcy Ostrom**. There were 80 attendees.

The WSU Vegetable Seed Field Day was held on July 8 at WSU Mount Vernon. The field day was attended by more than 50 people including, representatives from various seed and agricultural companies, seed growers, consultants, extension personnel, and students. Field trial demonstrations and presentations were made on pea seed treatments for downy mildew and root rots, **Debra Inglis**, Vegetable Pathologist; natural predators of cabbage maggots, **Renee Priya Prasad**, MS student in Entomology; weed control in beet, chard, spinach, brassica, and umbelliferous seed crops, **Tim Miller**, Weed Scientist; leaf spot in spinach seed crops **Lindsey du Toit**, Vegetable Seed

Pathologist, and **Pablo Hernandez-Perez**, MS student in Plant Pathology; white mold and Alternaria leaf spot in brassica seed crops, and evaluation of mustard cover crops for control of weeds and Fusarium wilt in spinach seed crops, **Lindsey du Toit**.

On May 12 a Wine Grape Workshop was held at WSU Mount Vernon for commercial and potential commercial wine grape growers. The all-day program featured speakers on topics of interest to grape growers and wine makers. **Dr. Dean Glawe**, WSU Puyallup, and **Dr. Gary Grove**, WSU Prosser gave details on the biology, epidemiology and control of powdery mildew. **Dr. Markus Keller**, WSU Prosser, presented a thorough discussion of canopy management and crop load. Other speakers were Richard Kinsies, wine evaluation, Tom Wessels, USDA, and Tom Bronkema organization for wine quality.

On July 12, a tour of the orchards for fruit sampling, was held for members of the Western Washington Fruit Research Foundation. Crops available for sampling included cherries, blackberries, blueberries and currants. Approximately 80 members participated in the orchard tour.

On July 26, Skagit Display Gardens presented "Garden Daze", a public open house and barbecue featuring tours of all five participating garden groups – the Discovery Garden (WSU Master Gardeners), Skagit Rose Society, Salal Chapter of the Native Plant Society, WWFRF Demonstration Fruit Garden, and the Skagit Veg Trials under the direction of **Andy Anderson**. Some 400 visitors toured the gardens and

participated in talks and demonstrations. Speakers included **Debra Inglis** and **Lindsey DuToit**, WSU Plant Pathology and **Tim Miller**, WSU Weed Science. The featured speaker at the barbecue was Dr. Gary Tollefson, President of Skagit Valley College.

**Lynell Tanigoshi** conducted foreign explorations for insect parasites of the exotic cherry bark tortrix with Dr. Petr Stary, Czech Academy of Sciences, Ceske Budejovice, Czech Republic, May 5-19. They will explore northern Bohemia and Moravia, Czech Republic and the vast premountains or plains of the Polish Carpathians. Abandoned sweet and sour cherry orchards were searched for cherry bark tortrix along with the thousands of roadside planted cherries. The latter sites are excellent natural habitats now because the 40-50 year old plantings have been neglected since both countries became independent from the Soviet Union.

A May study tour of sustainable agriculture in Cuba included 17 Washington State University faculty and staff, Washington farmers, private sector representatives, and federal and state agency employees. As a result of the visit, WSU formed new partnerships

with two Cuban agencies to jointly advance sustainable agriculture research and extension. Sponsored by the Center for Sustaining Agriculture and Natural Resources, study tour participants visited farms, research centers and urban farmers' markets and gardens in the island nation. Some members of the tour stayed on to participate in a world conference on organic research, with three WSU faculty members presenting findings. Highlights of the tour included learning about recent innovations in ecologically-based and energy-efficient farming systems; observing infrastructure for on-farm production of biological control organisms; and hearing directly from Cuban farmers and consumers about changes in their food and farming systems over the past decade. As an added bonus, CSANR returned with two signed letters of intent that pave the way for cooperation between WSU and the Cuban counterparts to Extension and the national Department of Agriculture. For more information contact Chris Feise, CSANR director, at (253) 445-4626 or [feise@wsu.edu](mailto:feise@wsu.edu).

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## PEOPLE

**Dr. Craig Cogger** received the 16<sup>th</sup> annual Kenneth J. Morrison Award in Agronomy and Soil Sciences at the Spillman Field Day in Pullman on July 11. This award recognizes WSU Cooperative Extension faculty for outstanding contributions made to improve Washington State's Agriculture in agronomic production, crop quality and soil management. Cogger's program links soils-based research with community problems within the broad areas of waste management, water quality and sustainable agriculture. Craig is also nationally recognized for his expertise in recycling solid waste. Craig received a plaque and a check for \$500. The award honors the memory of Kenneth J. Morrison who served as WSU extension agronomist from 1950-1987. Congratulations Craig!

**Dr. Richard Carkner** received an award of merit for an outstanding Extension program in agricultural economics. The award was presented in July, by the Western Agricultural Economics Association at their annual meeting in Denver. Congratulations Richard!

WSU Mount Vernon recently celebrated the 20-year anniversary of **Lanette Singleton's** employment at WSU Mount Vernon. Congratulations and thank you,

Lanette!

**Darrel O. Turner**, retired Soil Scientist, WSU Puyallup, has authored a book of short stories entitled "Salvage Only". The book was published by 1Books.com and can be purchased at Amazon.com. Dr. Turner retired in the early 1980's as an Extension Soil Scientist after 32 years of service to WSU.

**Jennifer Falacy**, Plant Pathology graduate student in the laboratory of **Gary Grove** at Prosser, spent the week of June 2 studying powdery mildew taxonomy with **Dean Glawe** at WSU Puyallup.

**JoAnn Manke, M.S.**, Nutritionist, Senior Farmers Market Nutrition Program (SFMNP), joined WSU Puyallup in April, working with **Sue Butkus's** group. The SFMNP provides fresh Washington-grown produce to approximately 7,000 low-income older adults in 13 counties. JoAnn is responsible for coordinating and producing the nutrition education that goes along with SFMNP. This year, nutrition education is focused on a website, hosted by WSU, that will give nutrition providers and farmers markets access to program information and nutrition education specific to seniors.

**Richard Hines** is now Communications and Development Specialist for the Center for Sustaining Agriculture & Natural Resources and the Small Farms Program, based at the Puyallup REC. Rich has a background in non-profit marketing and fundraising, most recently as Pacific Northwest outreach coordinator for American Farmland Trust. He previously worked in university development with the University of Washington's Major Gifts Program. "WSU faculty are engaged in a broad spectrum of research, teaching and extension that advances sustainable agriculture," said Chris Feise, CSANR director. "I'm pleased Rich is onboard to help us do strategic outreach that attracts new public and private support for these exciting programs." Rich can be reached at rhines@wsu.edu or (253) 445-4549.

The Fruit Horticulture Department is pleased to welcome **Dr. G. Hollis Spitler** who has joined the staff as of June 16 in the position of Agricultural Technologist I. Hollis has had many years of experience in horticultural field trials and will provide much needed support in the fruit evaluation trials, and the program generally.

**Dr. Kurt Schekel**, WSU Vancouver Research & Extension Unit, was selected to receive the WaFlorA Cup award for 2003 at the annual Greenhouse Manager's Institute conference held in Portland, Oregon in June. The WaFlorA Cup award was started in 1988 by the Washington Floricultural Association to recognize people making significant contributions to the floricultural industries in Washington. The traveling cup was donated by the Pacific Coast Nurseryman magazine and selections for the award are made each year by the association. In addition to the traveling cup to be kept for the year, the recipient is awarded a smaller cup to keep. Dr. Schekel teaches Horticulture and Greenhouse Management courses over the WHETS system at the WSU Vancouver campus. He also coordinates and manages the annual plant sale at the Vancouver campus, serves on advisory committees with local high schools and community colleges, and mentors high school students with science projects. Congratulations Kurt!



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## GRANTS

**C.G. Cogger** and **D.M. Granatstein**, were awarded a grant of \$107,696, total for three years, from Western Region

SARE to assess soil quality in intensive organic management systems.

**Debbie Inglis** and **Clare Coyne** were awarded \$32,000 from the Cool Season Food Legumes Research Program to research "Co-dominant Markers for Rapid Selection of Fusarium and Aphanomyces root rot resistant lines in fall-sown pea".

**Jon D. Johnson**, James P. Dobrowolski and Carolyn J. Henri were awarded a 3-year grant of \$242,035 from USDA SARE to conduct research on

"Riparian Buffers: Function, Management, and Economic Implications for Agriculture".

**Jon D. Johnson** was awarded a 3-year grant of \$80,000 from Agenda 2020, USDA Forest Service for research on "Nitrogen Use Efficiency for Long-term Sustainability of Short Rotation Hybrid Poplar Plantings".

Brian Stanton and **Jon D. Johnson** received a grant of \$26,060 from the Department of Energy, Small Business Innovative Research Program for research on "Modification of the Composite and Quality of Hybrid Poplar Biomass in the Pacific Northwest, Phase 1".

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## **GENERAL ANNOUNCEMENTS**

Kristina Ann Ufer, a Bellarmine Preparatory School senior from Lakewood was among several South Sound students competing in Cleveland after winning the South Science Regional Science Fair held at Pacific Lutheran University. Mentored by **Dr. Jon Johnson** at WSU Puyallup, Kristina won two awards in the Intel International Science and Engineering Fair, fourth-place grand award in environmental sciences and first place in National Ground Water Association.

**Dr. Carol Miles**, mentored a Vancouver high school student, Lydia Garth, who won 5<sup>th</sup> place in the Washington Junior Science and Humanities Symposium (JSHS). It is sponsored by the US Army, Navy and Air Force. After winning 5<sup>th</sup> in state, Lydia went on to the National JSHS competition in Colorado Springs,

Colorado. Lydia's project was on "The Effects of Flea Beetles, *Phyllotreta couciferae*, on Asian Vegetables; Organic Controls and Cultivar Tolerance."

The Nutrition Education Coordinator, Senior Farmers Market Nutrition Program (SFMNP), **JoAnn Manke**, is pleased to announce the launching of the website hosted by WSU Nutrition Education <http://www.nutrition.wsu.edu/markets/index.html>. This website gives nutrition providers and farmers market managers access to nutrition education materials for older adults participating in the program and access to necessary program information. Feel free to stop by and download a recipe or get tips for shopping at a farmers market. Many thanks to Ron Perrine for all his hard work on this beautiful website!

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Please send news items for our Summer edition of *West by Northwest* to Heather Schriver at WSU Puyallup, 7612 Pioneer Way E, Puyallup, WA 98371-4998 or e-mail: [schrive@puyallup.wsu.edu](mailto:schrive@puyallup.wsu.edu). **Deadline for the Autumn edition is October 31.**  
Co-editors: Debra Inglis and Heather Schriver.

