

PLANT MATERIALS TODAY

A newsletter from the USDA-NRCS Montana-Wyoming Plant Materials Program for those interested in Plants and Conservation



🌿 Volume 21 Number 1

May 2015 🌿



For more information on Plant Materials or for electronic access to this and other documents, access our web sites, [Montana NRCS](http://www.mt.nrcs.usda.gov) at <http://www.mt.nrcs.usda.gov> or [National Plant Materials Program](http://plant-materials.nrcs.usda.gov/mtpmc/) <http://plant-materials.nrcs.usda.gov/mtpmc/>.

Direct inquiries to USDA-NRCS, Plant Materials Center, 98 South River Road, Bridger, MT 59014, phone: 406-662-3579, FAX: 855-510-7028. All photos by BPMC staff unless otherwise noted.

🌿 Important Reminders 🌿

A reminder of the upcoming field day at the Bridger Plant Materials Center (BPMC) scheduled for Thursday, June 11, 2015. A variety of demonstrations, tours, and



Field Day at the Bridger Plant Materials Center.

activities will be provided over the course of the day. Beginning at 9:30 AM, participants will circulate between activity stations featuring topics such as pollinator habitat establishment, cover crops and soil health, greenhouse propagation and projects, tree and shrub establishment studies, seed processing, and agricultural equipment. Around noon, a BBQ will be hosted by the Bridger PMC Board of Managers of the Soil and Water Conservation Districts of Montana (MACD). In the afternoon, a

guided tour of the Center and additional seed increase activities and studies will be provided. After the tour, participants are invited to stay and ask additional questions, or simply visit.



Cover crop root development demonstration.

If you are planning to attend, please RSVP to Joe Scianna at your earliest convenience at 406-662-3579 X 101, or joseph.scianna@mt.usda.gov, so that tour plans can be fine-tuned. The event will be held rain or shine, with activities conducted inside should weather prove inhospitable. Please come dressed for outdoor conditions (sunscreen, cap, water bottle, etc.) and please let us know if anyone in your party requires special provisions. We hope you can make it!

🌿 Feature Topic 🌿

Woody Plants Take Another Hit!



Suffering apple tree.

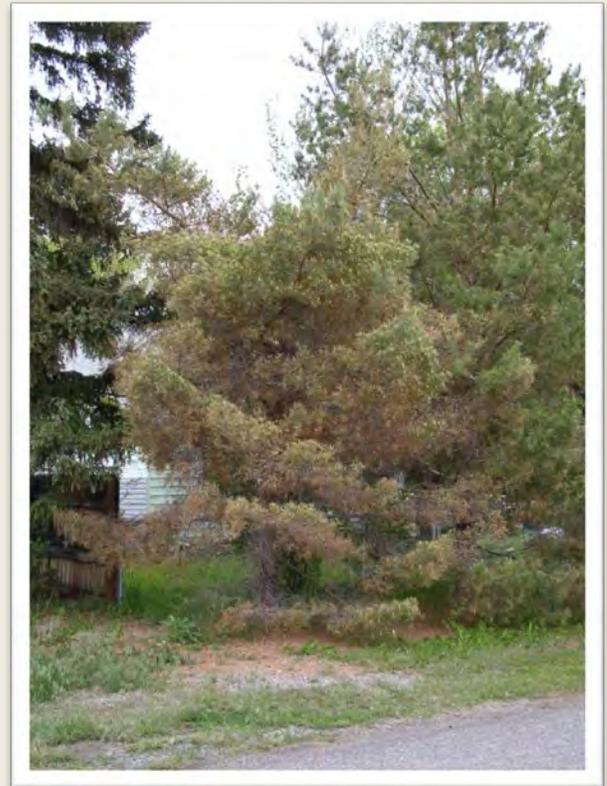
South-central Montana trees took another hit this year when temperatures in November swung widely. After an exceptionally mild October, with a monthly average daytime high of almost 68^oF, temperatures plummeted from 66^o F on November 10 to -15^o F on November 13. Temperatures again climbed to 61^o F on November 29, and fell to -15^o F on December 1.



Foliar damage on ornamental junipers.

The result this spring has been quite dramatic. Conifers show symptoms of severe needle and

scale burn. Particularly hard hit has been Scots pine, ornamental junipers, arborvitae, Austrian pine, and even some ponderosa pine. Deciduous trees including crab-apple varieties, European mountain ash, apricots, white poplar, and apples suffered. Many other species show irregular or non-uniform leaf emergence patterns. The results vary widely from location to location, and even some trees in the same yard show varying degrees of damage. Native species seem less impacted, but not exempt. The dormancy status of the plant going into November presumably determined to what degree the plant was impacted.



Needle burn and necrosis on Scots pine.

But all may not be lost. There is some encouraging evidence that not all damage will result in plant mortality. Many terminal and lateral buds remain turgid and green, so there is

hope they may eventually grow leaves and begin photosynthesizing. For conifers, this may require several years before the plant appears fully green. The best advice at this point: Wait and see.

Homeowners will need to assess the level of damage and then decide if pruning (removal) of dead tissue will result in a plant worthy of preserving. Some trees may ultimately survive, but may be so severely damaged that their aesthetic value and functionality is no longer acceptable, and it may be best to remove the entire plant. For now, keeping plants vigorous with appropriate levels of water and fertility is the best course of action.

Joe Scianna - BPMC Manager/Horticulturist

🌱 Project Progress 🌱

DATR Chatter – The Development of Acid/Heavy Metal Tolerant Releases (DATR) Project

The Development of Acid/Heavy Metal Tolerant Releases (DATR) project continues to progress well. Production of Foundation seed for the six releases from this project continues, and is available to certified seed producers. A Technical Note summarizing the results of the Stucky Ridge Comparative Evaluation Planting has been drafted and will be posted on the NRCS Plant Materials web site soon.

To carry on with performance testing of silverleaf phacelia, *Phacelia hastata*, two studies are underway. The first study is to determine if the length of cold stratification, and degree of seed scarification, has an effect on reducing seed dormancy in silverleaf phacelia. Another study will determine how well phacelia performs in amended and un-amended soils taken from the Anaconda Superfund site. The additional

information from these two studies will be used in support of the selection of this seed source for release.

As mentioned in our last newsletter, silverleaf phacelia is a species the DATR project would like to release to the commercial market for restoration of acid and heavy metal impacted sites. This is a drought-tolerant and winter-hardy plant, an excellent pollinator species, and would offer diversity and wildlife habitat enhancement in various critical area plantings.



Silverleaf phacelia.

Joe Lefebvre, Project Leader, DLVCD

Staff News

Roger Hybner Retiring!

May 29, 2015, will mark the end of a long and distinguished career in agronomy for Roger Hybner, Research Agronomist at the Bridger Plant Materials Center.



Roger atop a precision plot seeder.

Roger attended college at Montana State University and obtained a B.S. degree in Agronomy and M.S. in Agriculture Education. Roger came to NRCS as an Area Agronomist in 2004 in Miles City after serving as the Director of the Wyoming Agricultural Experiment Station at



Roger training field staff on grass identification.

Sheridan, Wyoming for 17 years. In 2006, Roger came to the BPMC and has worked on a variety

of conservation topics, most recently related to cover crops and soil health. He led the cooperative agreement with Glacier National Park and has been an active member of the Western Society of Weed Science and the Montana Soil and Water Conservation Society.

Roger's efforts at the BPMC will be missed, but especially his good nature and willingness to assist his co-workers. Roger's future plans are to work on his home near Joliet, do some agronomic consulting in Montana and Wyoming, Earth Team volunteer at the BPMC, spend more time assisting his parents, and travel. We wish Roger the best, and hope our paths cross often with him in the future. Please give Roger a call or drop him a note at the PMC or at his home address to wish him well (wyrnoed@tctwest.net, 406-951-3427, or 86 Cole Creek Rd, Joliet, MT 59041).

Technician's Tip

Inoculating Legumes

An important step in establishing legumes is coating their seeds with the proper inoculant. But many of us are unaware that inoculants are perishable, as well as somewhat host-specific. There are other factors to consider as well. Our counterparts at the Texas PMC recently developed a handy Technical Note titled, *Legume Seed Inoculation*. The guide describes the proper handling of inoculants and seed, how to properly inoculate seeds with bacteria, which inoculants to use with which crop, and how to assess the effectiveness of the inoculants. Look on the Plant Materials website for Technical Note TX-PM-15-01.

**Darren Zentner, Ross Oyler, and Robert Fisher -
BPMC Biological Technicians**

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal employment opportunity provider and employer.