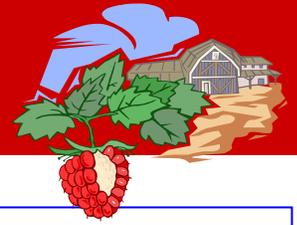


UTAH BERRY GROWERS ASSOCIATION NEWSLETTER

April 2009
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We hope you find the information in this newsletter useful. If you have comments regarding information in this newsletter, or would like to see in future newsletters, please contact:

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Inside This Issue

Overview of Winter Meetings	1
Spring High Tunnel Workshops	2
New Fruit Fact Sheets	4
Online Pest Management Resources	5
Currant Borer ID & Management	5
New Black Currant Varieties	7
Weed Guide Announcement	8

Utah Berry Growers Winter Meeting Full of Useful Information

By James Barnhill, Weber & Morgan Counties Extension Agent

The Utah Berry Growers Association held its winter meeting the afternoon of February 11, 2009 at the Bridgerland Applied Technology Center in Brigham City. It followed the Northern Utah Fruit Growers meeting which had been held that morning.



Dr. Kent Evans

Dr. Kent Evans, USU Extension Plant Pathologist, talked about raspberry fungal diseases. He began with a description of 'spur blight' that infects leaves and canes. He suggested that all dead or diseased canes be removed and that practices be implemented to reduce the time that foliage is wet or in a high humidity situation. He also reviewed several fungicides which are helpful in reducing the spread of this disease.

He next talked about raspberry root rot. It is thought to be a combination of phytophthora and pythium infestations. It is aggravated by excessively wet soils and shows up as stunted plants that frequently have interveinal yellowing and scorched leaf margins. Hilling up around the plants to improve water drainage, and selecting clean planting material from cultivars that are resistant will help control this disease. He reviewed a list of cultivars that are resistant and a list of those which are particularly susceptible. He also suggested solarizing sites where root rot had been a problem before re-planting.

The last disease that Dr. Evans covered was fruit and cane botrytis. This disease causes blossom blight and fruit rot. It often shows up as a grey fungus on decaying fruit. The disease is aggravated by sprinkler irrigation, so he recommends that sprinkling be done in the early morning so that the plants dry out quickly. He listed varieties that are resistant to botrytis and some fungicides that can be used to prevent infections.

Dr. Brent Black, USU Extension Fruit Specialist, then presented information on iron deficiency management and irrigation scheduling. He emphasized the importance of proper irrigation to avoid iron deficiencies and mentioned several soil active herbicides that could create symptoms similar to iron deficiency. The iron products recommended for treating iron deficiencies were EDDHA chelated. Sequestrene 138 Fe and Miller's Ferri-Plus Fe are two products that have that recommended chelate. Several soil moisture monitoring methods were reviewed along with their advantages and costs. His fact sheets on Berry Chlorosis, Cane Berry Irrigation and Strawberry Irrigation can be found at <http://extension.usu.edu/publications>.



Dr. Brent Black



Chet Fitzgerald

Chet Fitzgerald from the Natural Resources Conservation Service reviewed the technical assistance and cost share programs available from the Government. The EQIP program that he discussed currently has designated funds for small acreage and fruit farmers that might be options for Utah berry growers.

After a short break with refreshments, Daniel Rowley reviewed his work with High Tunnels. He had developed methods for improving production by using a tunnel in a tunnel to maintain a higher temperature around the plants and using gutter grown plants on trellis' to get better utilization of space. He talked about some of the problems they had dealt with and the potential for extending the season that high tunnels provided.



Daniel Rowley



Marion Murray

The USU Extension IPM Specialist, Marion Murray, covered all of the major insects that bore into berry canes and roots. She did an excellent job of teaching how to identify the various pests and the damage that they cause along with recommended control measures.

Dr. Diane Alston, the USU Extension Entomologist, gave the final presentation, reviewing the various insects and mites that commonly attack berries. Her review of control measures was particularly valuable. She even taught the audience how to make a European paper wasp trap out of a liter bottle.



Dr. Diane Alston

It was a great afternoon, packed full of useful information with plenty of opportunities for visiting with other growers and asking questions.



Participants network during the mid-meeting refreshment break

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Spring High Tunnel Workshops

By Dr. Brent Black, USU Extension Fruit Specialist



USU Extension and the Western SARE program sponsored a high tunnel workshop on March 16 at the Kaysville Research Farm. Approximately 35 commercial growers and extension professionals participated in the one-day workshop, which featured both classroom and hands-on instruction. The classroom instruction featured presentations from Extension Vegetable Specialist Dan Drost, Extension Fruit Specialist Brent Black, and USU graduate students, Daniel Rowley and Britney Hunter.

Daniel Rowley was first on the program and gave an overview of the "critical temperatures" for plant growth and how high tunnels, low tunnels, and row covers can be used to improve temperature conditions. He also spoke about his work with high tunnel strawberries, where with a combination of June-bearing and day-neutral cultivars, he harvested fruit in Cache Valley from mid-May to mid-December of 2008.

Dan Drost talked more about critical temperatures, explaining the differences between cool-season and warm-season vegetables, and providing handouts on optimum temperatures for a wide range of vegetable crops. He then showed symptoms of chilling injury, cold injury, and heat injury for common vegetable crops.

Britney Hunter presented her work on year round production of salad greens in high tunnels, including the use of a vertical growing system to increase plants per square foot. She is also experimenting with heat cables and incandescent lights as low-cost methods for preventing cold injury and chilling injury of lettuce and tomato crops.

Brent Black was the last classroom presenter and gave an overview of high tunnel research on raspberry and blackberry production. He talked about high tunnel design considerations and selecting the design that best suits individual locations and crop production goals. He then introduced the PVC-frame low cost tunnel design featured in the recent USU Extension bulletin (<http://extension.usu.edu/publications>).



The workshop then moved outside where participants constructed high tunnel end walls and doors according to the directions provided in the USU bulletin. After enjoying a lunch break sponsored by Western SARE, participants reconvened at the David Day farm in West Layton where they assembled a 90-foot high tunnel. Unfortunately, the windy weather prevented participants from putting the plastic cover over the completed framework.

Eastern Utah Workshop

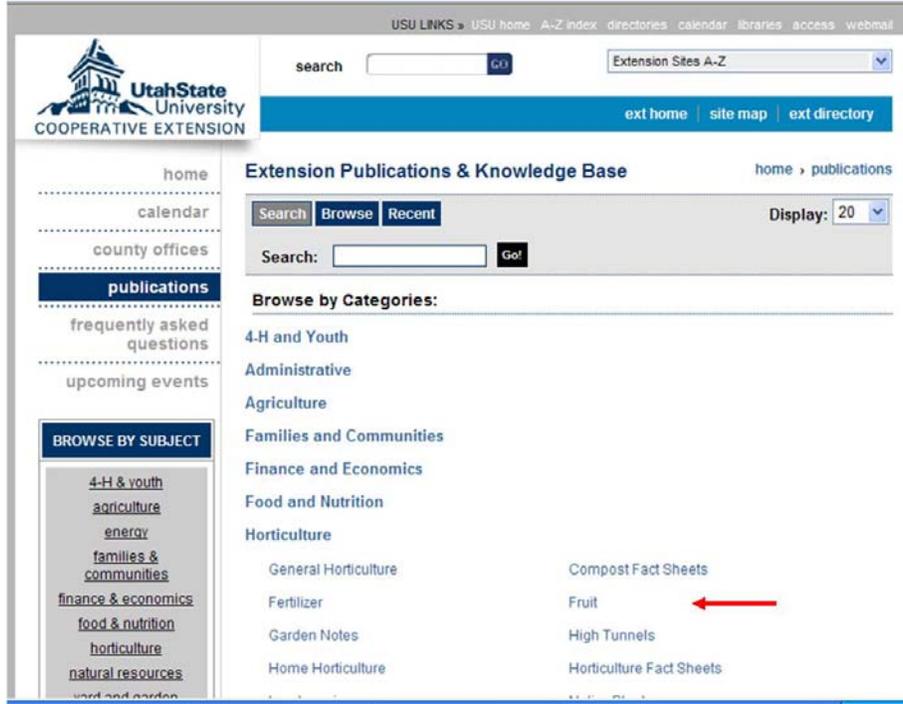
A similar one-day workshop was held in Price on April 4th, which was geared more to hobbyists and master gardeners. Participants from Carbon and Emery counties met for classroom instruction at the Carbon County courthouse, with instruction given by Brent Black, Daniel Rowley, and Carbon County agriculture extension agent Ron Patterson. Again, the weather did not fully cooperate for the construction phase of the workshop, so participants reconvened at the county fairgrounds where end walls and doors were constructed, and a tunnel was partially assembled in the indoor arena.



Special thanks go to county agents Shawn Olsen and Ron Patterson for hosting these workshops, and Bob Newhall from Western SARE for workshop funding. We have one more spring workshop scheduled for April 16 in Junction, hosted by Wayne, Piute and Garfield counties (for more information or to register, contact the county extension offices in Wayne or Garfield Counties. (Lisa Lewis at 435-836-1313 or Kevin Heaton at 435-676-1117). We are also planning several more workshops to be held in the fall so stay tuned for a date and location near you.

New Fruit Factsheets

Several new Extension fact sheets on berry management have recently been added to the USU Extension web site. These, along with past issues of the UBGA newsletter can be downloaded from the website: extension.usu.edu/publications. Click on "Horticulture" and then "Fruit" to download the documents in pdf format.



Horticulture



extension.usu.edu

January 2009 Horticulture/Fruit/2009-02pr

Iron Chlorosis in Berries

Dr. Brent Black, USU Extension Fruit Specialist, *Dr. Grant Cardon*, USU Extension Soils Specialist and *Dr. Corey Ransom*, USU Weed Scientist

Horticulture



extension.usu.edu

October 2008 Horticulture/Fruit/2008-06pr

Strawberries in the Garden

Brent Black, USU Extension Fruit Specialist, *Michael Pace*, Box Elder County Agent, *Jerry Goodspeed*, Weber County Agent

Horticulture



extension.usu.edu

October 2008 Horticulture/Fruit/2008-05pr

Strawberry Irrigation

Dr. Brent Black, USU Extension Fruit Specialist, *Dr. Robert Hill*, USU Extension Irrigation Specialist, and *Dr. Grant Cardon*, USU Extension Soils Specialist

Horticulture



extension.usu.edu

March 2008 Horticulture/Fruit/2008-04pr

Caneberry Irrigation

Dr. Brent Black, USU Extension Fruit Specialist, *Dr. Robert Hill*, USU Extension Irrigation Specialist, and *Dr. Grant Cardon*, USU Extension Soils Specialist

Horticulture



extension.usu.edu

January 2009 Horticulture/Fruit/2009-01pr

Blueberries in Utah? Difficult, but Maybe Not Impossible

Dr. Brent Black, USU Extension Fruit Specialist, *Dr. Grant Cardon*, USU Extension Soils Specialist and *Dr. Mark Ehlenfeldt*, USDA-ARS Research Geneticist

Useful Online Resources:

USU Extension does not assemble a berry pest management guide. However, several states have guides that are available online, that may be useful to Utah growers. Read specific recommendations carefully, as some of the listed materials are for specific states under "24c" or "Special Local Need" registration, meaning they may not be registered for use in Utah. For example, some of the herbicides listed in the PNW weed guide are listed with a remark similar to the following: "Special local needs labels OR-070002 and WA-070005." Meaning that use is restricted to Oregon and Washington.

2009 Pest Management Guidelines for Berry Crops. Published by Cornell University (New York).

<http://ipmguidelines.org/BerryCrops/default.asp>

Pacific Northwest Insect Management Handbook. Published by the University of Idaho, Oregon State University and Washington State University.

<http://ipmguidelines.org/BerryCrops/default.asp>

Pacific Northwest Weed Management Handbook. Published by the University of Idaho, Oregon State University and Washington State University.

<http://weeds.ippc.orst.edu/pnw/weeds>

Midwest Small Fruit Pest Management Handbook. Published by 10 mid-western states.

<http://ohioline.osu.edu/b861/>

2009 Midwest Commercial Small Fruit and Grape Spray Guide. Published by 10 mid-western states.

<http://www.hort.purdue.edu/hort/ext/sfg/ID-169-2009.pdf>

Currant Borer Identification and Management

By Marion Murray, USU Integrated Pest Management Project Leader

Utah has an ideal growing climate for currants, and interest in this crop has swelled among small fruit growers due to the health benefits of the fruit, their ease of growth, and the potential for income. Currants are generally pest-free, but one pest in particular, the currant borer, can limit production. Red currants are most susceptible.

Biology

Also known as the currant clearwing, the currant borer is native to Europe, but occurs almost everywhere currants are grown. Among all the clearwing moth species, this is the most widespread and abundant. The larvae cause damage by boring into the pith of 1st and 2nd year canes. The first symptoms are yellowing foliage in spring. In general, infestations cause stunted plants, weak canes, shoot dieback that resembles winter-kill, uneven bud break, and reduction of fruit yield.



Severely infested plants will show dieback and poor bud



Currant borer exit hole

Currant borer moths start emerging from pupation in mid to late May, and fly until late July. Females lay up to 50 eggs each, placed singly on buds or bark wounds, starting 10-15 days after emergence. Eggs hatch in 2-3 weeks, and the creamy-white larvae bore into stems, moving up and down the center of the canes, making larger and larger channels. They overwinter within the stems and pupate the following spring. There is one generation per year.

Management

To manage currant borer, it is important to know which pest is affecting your plants. Rose stem girdler is also known to attack currants. There are a few ways to monitor:



Larvae can be found inside canes by slicing vertically

Whitney Cranshaw,
Colorado State Univ.

1. Cut affected canes in spring or late summer, and slice in half vertically to find the larvae

2. Use a sticky trap baited with a pheromone lure to capture adult males. The lure works wonderfully, and the trapping results provide an idea of the level of infestation on your farm. In Utah, peak trap catch is mid-June where you may see on average 40 moths/week, and sometimes up to 200/week. Research has shown that capture of 80 moths/week equates to about 10% damage.

3. Look for adult moths. These small, shiny, blue-black moths fly during the day, and may be easily observed flying from plant to plant.

The number one management recommendation is to prune out canes when symptoms are noticed, or before adult emergence in mid-May. Destroy pruning debris. Successive years of pruning has been shown to significantly reduce incidence.

Keep plants productive by removing shoots older than three years and applying compost, manure, or fertilizer. Foliar sprays of nematode species in the genera *Steinernema* and *Heterorhabditis* have also shown some success in control.



Adult currant borers are day-flying moths with clear wings and a shiny, blue-black body.

Whitney Cranshaw,
Colorado State Univ.

When starting new plantings, consider varieties that are tolerant of attack; your nursery supplier can help. Some black currant cultivars from northern Sweden, Russia, and England are rarely attacked such as 'Kerry,' 'Black Naples,' and 'Saunders.' Tolerant red currant varieties include 'Detvan,' 'Mulka,' 'Redstart,' 'Rolan,' 'Rosetta,' 'Rondom,' and 'Rovada.' White currants are rarely attacked.

Unfortunately, there are no insecticides registered specifically for currant borer; however, other products for currants that include lepidopteran pests could be used. Note that these products have not been found to be highly successful in controlling currant borer. There are no products for residential use. Timing is critical, as products are most effective on eggs (ovicides) or on newly hatched young larvae. Products should be applied to canes 10 days after catching the first moths, with protection through July:

1. Danitol (fenpropathin): 21-day PHI
2. Confirm (tebufenozide): 14-day PHI
3. Success (spinosad): 1-day PHI

Don't let the occurrence of current borer prevent you from growing these tasty and healthy treats. This pest is easily managed through pruning and cultivation so that Utah growers can enjoy currants for the local fresh market or produce value-added products such as syrup, jams, jellies, juice, or wine.

1. James, D. 2003. Secret Life of the Currant Stem Girdler: Another Opportunity to Use Sex Pheromones in Red Currants? *Agrichemical and Environmental News*, 201, January.
2. James, David. 2002 Confusing (and Controlling) Currant Borers. *Agrichemical and Environmental News*. No. 192.
3. Karalius, V., et. al. 2003. Monitoring of the currant clearwing (*Synanthedon tipuliformis* Cl.) (Lepidoptera, Sesiidae) by pheromone traps in Lithuania. *Acta Zoologica Lituanica*. Vol 13 No 3.

NEW BLACK CURRANT VARIETY RELEASE NOTICE

McGinnis Berry Crops Limited
3583 Dover Creek Road, Courtenay, BC;
telephone 250-338-8200; email mcginnis@berrycrops.net

Blackcomb (*Ojebyn x Titania*)

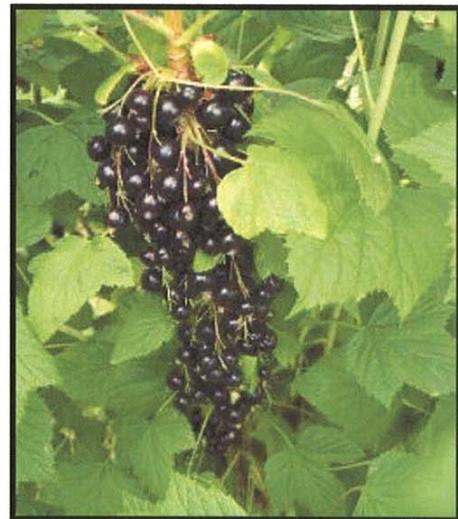
Blackcomb is a high yielding new variety that is has high levels of resistance to foliar diseases – mildew, White Pine Blister Rust - , vigorous growth habit and tolerance to late spring frost. Blackcomb has produced yields in replicated B.C. trials that were more than 50% higher than Titania and Ben Alder. Fruit size is 20% larger than Titania. Flowering is late mid-season and this variety has demonstrated better tolerance to late spring frost than Titania. Well suited to machine harvest.



Recommended for trial in Canada and northern U.S. states.

Whistler (*Ben Tirran x Bieloruskaja Slodkaja*)

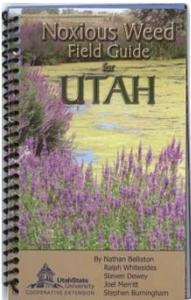
Whistler has high yields of small to medium sized high quality fruit. It has fair resistance to mildew and good resistance to White Pine Blister Rust. Growth habit is slightly spreading with medium vigour. Flowering is late-mid season with good tolerance for late spring frost. Yields in replicated B.C. trials were more than 50% higher than Titania and Ben Alder. Fruit size is smaller than Ben Alder, .8 grams per berry. Juice quality is excellent. Well suited to machine harvest.



Recommended for trial in Canada and northern U.S. states.

Reprinted from article in the February issue of the New York Berry News

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New Noxious Weed Field Guide for Utah Announced

Utah State University Extension in cooperation with the Uintah County Weed Department and the Utah Department of Agriculture and Food are pleased to announce the release of the third edition of the Noxious Weed Field Guide for Utah. The first printing of the third edition became available in January 2009. The noxious weed field guide deals exclusively with Utah's state noxious weeds. Effective July 2008 the Utah Noxious Weed Act was amended to allow for categorization of weeds and 27 weeds were declared noxious. The book is divided into three color-coded sections that reflect the categories and weed rankings from a statewide perspective. The noxious weed classifications and attributes are:

Class A Weeds - Early Detection Rapid Response (EDRR). Declared noxious weeds not native to the state that pose a serious threat to the state and should be considered a very high priority.

Class B Weeds - Control. Declared noxious weeds not native to the state that pose a threat to the state and should be considered a high priority for control.

Class C Weeds - Containment - Declared noxious weeds not native to the state that are widely spread, but pose a threat to the agricultural industry and to agricultural products with a focus on stopping invasion.

The Noxious Weed Field Guide for Utah contains weed identification pictures, accepted common name, scientific name, background including origin, distribution maps for Utah, plant description, and a brief comment regarding general control techniques.

To order copies of the Noxious Weed Field Guide for Utah contact Utah State University Extension Publications:

Phone 435-797-2251
8 AM to 5 PM Mountain Time
Monday through Friday

Or E-mail: extension.publications@usu.edu

Field Guides cost \$4.00 each