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Quote for Thought from Pete Ferretti

If you keep your mind sufficiently open, people will throw a lot of rubbish into it.

~William A. Orton

Blueberry Anthracnose (Ripe Rot) – A Problem in 2008?

Andy Muza, Penn State Cooperative Extension – Erie County

As the season progresses, if we settle into a pattern of warm, rainy, humid weather then anthracnose could become a problem. Although often thought of as more problematic in southern regions, anthracnose is a disease prevalent throughout blueberry regions in North America.

The fungi causing anthracnose on blueberry are in the genus *Colletotrichum* and include *C. gloeosporioides* and *C. acutatum*. These fungi have a wide host range and can cause rots on a variety of fruits and vegetables such as blueberry, strawberry, apple (bitter pit) and tomato.

On blueberry the fungus overwinters in blighted fruit twigs, cane lesions and infected inflorescence buds. Infections of fruit occur starting at bloom. During bloom, spores are released from infected plant tissues and spread by rain splash to susceptible tissues. A temperature range between 59 – 81°F and at least 12 hours of leaf wetness are required for infection to occur. Anthracnose on blueberry is commonly known as ripe rot because symptoms appear as the berries begin to ripen or often post harvest. Infected berries become shriveled at the blossom end and may exude masses of pink – orange colored spores in wet, humid conditions. (See pictures of infected fruit and canes at www.blueberries.msu.edu/anthracnose.htm).

When determining the risk potential for problems in the current season consider inoculum levels (i.e., disease pressure in the previous and current seasons) along with environmental conditions (e.g., warm, wet, humid weather) and cultivar susceptibility. (Cultivars mentioned in the literature as highly susceptible include: ‘Berkeley’, ‘Bluecrop’, ‘Blueray’, ‘Bluetta’, ‘Coville’, ‘Earliblue’, ‘Jersey’, and ‘Spartan’).

A combination of sanitation practices and a protectant program of fungicide applications are needed for effective management of anthracnose. Pruning out damaged, diseased and excess canes will increase air circulation thus drying fruit and the canopy faster, while also providing better penetration of fungicide sprays. Also, maintaining good weed control within rows will improve air circulation. If applying fungicides for management of this disease then initiate sprays starting at bloom and continue through harvest (depending on weather conditions) since fruit are susceptible to infection throughout their development. Consult the 2008 Mid-Atlantic Berry Guide (<http://pubs.cas.psu.edu/freepubs/MABerryGuide.htm>) or your state’s guide for suggestions on effective fungicides, rates and spray timings. Frequent harvesting and prompt cooling of fruit may also reduce post harvest disease development.

Know Your Enemy: Common Purslane

Dave Johnson, PSU Southeast Research and Extension Center

Common purslane (*Portulaca oleracea*) is a weed problem in gardens and occasionally in field crops. This plant is generally thought to be of Eurasian origin, but there is evidence that it may have been in North America prior to European settlement of the new world. Seeds and pollen have been found in lake beds dating to before AD 750, and it is theorized to have been brought to North America by migration during the Stone Age. The plant is edible, and is used as a vegetable by some people. However, there are reports of livestock poisoning due to high levels of oxalate and nitrate in the plant tissues. It is closely related to moss rose (*Portulaca grandiflora*), a landscape flower. Common purslane usually germinates late in the season, is drought tolerant, and grows during the hottest months of the year.

Common purslane is easily recognizable by its fat, fleshy, succulent leaves, growing from red-colored stems that grow prostrate on the ground (Figure 1). It will often grow into a circular mat up to 2 feet in diameter, with many stems and leaves, and tiny yellow flowers. It is an annual plant that spreads by water, wind, and equipment. Seeds can remain viable in the soil for several years. The fleshy stems take a while to desiccate, and can reroot and form new plants after removal by cultivation.

Common purslane control can be difficult. It produces lots of seed, and cultivation can make the problem worse because the succulent plant parts can survive long enough to reroot, and seeds can continue to ripen in pulled plants. Plants that are hand pulled or broken by cultivation or hand hoeing should be removed from the area. When I remove these plants from our garden, I often lay them in the sun on the driveway so they can desiccate more rapidly.

Mulches, as long as they are thick enough to prevent light from reaching the soil surface, can control this weed. Black plastic mulches can also be effective, but purslane will often grow at the transplant hole. Soil solarization, in which clear plastic is placed on the soil surface for several weeks during the summer, can kill both emerged plants and seeds. However, disturbing the soil after the plastic is removed will bring more seeds to the surface where they can germinate.

There are effective herbicides for common purslane control in vegetables. Both soil-applied (preemergence) and foliar applied (postemergence) products are available. For soil-applied herbicides, it is important that the herbicide be in the upper inch of soil, where the common purslane seeds germinate. Even light mechanical incorporation will bring seed to the surface and result in control failures. Postemergence herbicides should be applied early, when the plants are small, to kill the plants before they have a chance to set seed. Some postemergence products that cause plant tissue burning will probably be only marginally effective, since the succulent nature of the plant allows recovery.

Cucurbit growers can use Strategy or Command preemergence. Sandea applied preemergence can give some control, but not postemergence. Shielded applications of Gramoxone or Aim will control small weeds. In edible beans, Treflan and Command will give control, and Pursuit (lima beans only) preemergence and Raptor (snap beans only) postemergence will control this weed. Tomato growers can use Sencor or Matrix.

Common purslane is a rather unique plant for our area, because its succulent tissues allow it to survive cultivation, and broken plant parts can reroot to form new plants.

Figure 1. Young common purslane plant, showing thick, succulent leaves and prostrate growth habit.



Upcoming Meetings

If you have a meeting you would like to announce, please send the meeting title, date, location and contact information to esanchez@psu.edu.

Local

- ✓ July 30, 2008. **Summer Vegetable Growers Meeting**, Kutztown, PA. For more information contact Mena Hautau at (610) 378-1327 or mmh10@psu.edu.
- ✓ August 7, 2008. **Building a High Tunnel Hands-On Workshop**, Josie Porter Farm, Stroudsburg, PA. Pennsylvania Women's Agricultural Network (PA-WAgN) sponsored event. Registration \$15, which includes lunch. For more information visit <http://wagn.cas.psu.edu/Register0810.html>.
- ✓ September 11, 2008. **Taste of Harvest Winery Tour**, J. Maki Winery at French Creek Vineyards, Chester Co. Pennsylvania Women's Agricultural Network (PA-WAgN) sponsored event. Registration \$15, which includes wine tasting. For more information visit <http://wagn.cas.psu.edu/Register0813.html>.
- ✓ November 13, 2008. **Vegetable and Small Fruit Agricultural Educators Roundtable**, Sam Hays Livestock Evaluation Facility, Rock Springs, PA. For more information contact Bill Lamont at (814) 865-7118 or wlamont@psu.edu.
- ✓ November 18, 2008 (tentative date). **Western Pennsylvania Vegetable & Berry Seminar**, Butler, PA. For more information contact Eric Oesterling at (724) 837-1402 or reol@psu.edu or Lee Young at (724) 228-6881 or ljs32@psu.edu.

Regional

- ✓ July 23, 2008. **2008 Vegetable and Small Fruit Field Day**; Horticulture Research Farm, Russell E. Larson Research Center, Rock Springs, PA. For more information contact Mike Orzolek at (814) 863-2251 or mdol@psu.edu.
- ✓ January 13 – 15, 2009. **Atlantic Coast Agricultural Convention and Trade Show** (NJ Vegetable Meeting); Trump Taj Mahal. For more information contact Mel Henninger at (732) 932-9711 x 120 or henninger@aesop.rutgers.edu.
- ✓ February 3-5, 2009. **2009 Mid-Atlantic Fruit and Vegetable Convention**, Hershey Lodge and Convention Center, Hershey, PA. For more information contact William Troxell at 717-694-3596 or visit www.mafvc.org.

National

- ✓ August 10-14, 2008. **92nd Annual Meeting of The Potato Association of America**; Buffalo, NY. For more information contact Don Halseth at (607) 255-5460 or deh@cornell.edu or the website at <http://www.hort.cornell.edu/PAA2008/>.

International

- ✓ Sept. 7-10, 2008. **19th International Pepper Conference**; Sheraton Hotel and Conference Center, Atlantic City, New Jersey, USA; contact Dr. Wesley Kline by phone (856) 451-2800 or email wkline@aesop.rutgers.edu or Dr. Andy Wyenandt by phone (856-455-3100 X4144) or email wyenandt@aesop.rutgers.edu

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The newsletter is also posted within three days on the Department of Horticulture Vegetable program website at: <http://hortweb.cas.psu.edu/extension/veg crops/newsletterlist.html>.

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