## Maintenance, Insect Pests and Diseases of Blueberries

A Companion Brochure to "Growing Blueberries in Southeastern Wisconsin"

<u>Maintenance of Plants</u>—Blueberries fruit on wood of the prior year's growth, but it is necessary to prune them annually to maximize fruiting on the productive canes. Old stems should be thinned out and any dead stems should be removed. The internet can provide good guidelines and video demonstrations of proper pruning techniques.

In Wisconsin, blueberries will blossom in May and are subject to late frosts which may kill blossoms and impact or ruin the fruit production for the season. Plants can be protected, either by sprinkling them with water or placing a blanket or row cover over them if a frost is expected.

<u>Insect Pests</u>—The primary blueberry insect pests in Wisconsin are the:

## Spotted Wing Drosophila

## and Japanese Beetles.





These can be controlled to a degree by removing overripe fruits and other nearby host plants, such as perennial weeds. If this is impractical, there are organic insecticides that are effective against both pests. They are products that contain *spinosad* or *pyrethrin.* A product under the brand name *entrust* is also effective against Spotted Wing Drosophila.

There are few known biological controls for either Japanese Beetles or Spotted Wing Drosophila. Milky Spore is one method of control, but it is not as effective against Japanese Beetles in northern climates. Hand-picking of the insects is a tried-and-true remedy. Then, drop them into a container of soapy water to drown. Dispose of dead beetles often, as their odor can attract more beetles. (See additional article "Japanese Beetles" on this site.)

An emerging problem in Wisconsin is **Blueberry Maggots**. They were first discovered in the state in summer of 2016 and are now considered to be established here. They are expected to have significant impact on commercial blueberry production. Flies are

active from June through August. Some cultural control methods can prevent blueberry maggot infestations.

These include:

\*Removing weeds in the blueberry patch, that provide habitat for the maggots. \*Removing wild blueberry and huckleberry bushes near plantings. \*Harvesting fruits thoroughly.





\*High-temperature heating (solarizing) under plastic or freezing any damaged or unsalable fruit. Crop waste should never be composted without first solarizing it, as blueberry maggot pupae can survive in the compost and infest crops in future years.

<u>Diseases</u>—Long periods of cooler/wet conditions, along with certain cultural practices can make blueberries more susceptible to attack from diseases. Common blueberry diseases include the fungal diseases Phomopsis Canker, Phomopsis Blight, Septoria Leaf Spot, Mummy Berry, Botryosphaeria Stem Blight and a bacterial blight caused by Pseudomonas syringae. (Photos and descriptions are readily available on the internet simply by searching the name of the disease with the words "on blueberries".)

## **Phomopsis Canker**

Septoria Leaf Spot

**Mummy Berry** 



Once these diseases are established, they can quickly spread from plant to plant, impacting fruit production. The best ways to avoid these diseases:

\*Give the plants adequate spacing to maximize air flow through the canopy.

\*Avoid planting a mono-culture by inter-mixing plants of other types.

\*Plant understory crops or mulch to prevent soil spores from splashing on to the blueberry bushes.

On-line Resources:

https://fruit.wisc.edu/other-berry-crops/ https://fieldguide.bcblueberry.com/phomopsis-canker/

Treating Blueberry Septoria Leaf Spot

https://www.gardeningknowhow.com/edible/fruits/blueberries/treating-blueberries-with-septoria.htm https://blueberries.extension.org/blueberry-diseases/ https://blueberries.extension.org/mummy-berry-disease-of-blueberries/ https://blueberries.extension.org/stem-blight-of-blueberry/ https://www.garden.eco/blueberry-disease https://extension.umn.edu/fruit/growing-blueberries-home-garden

Printed Resources: <u>BLUEBERRY CULTIVATION: A Guide On How To Grow Blueberries</u> by Lucky James <u>Grow Blueberries at Home: The complete guide to growing blueberries in your backyard!</u> by Steve Ryan <u>Growing Fruit in the Upper Midwest</u> by Don Gordon

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