

Small Scale Berry Production

BBG Certificate Series - Fruit





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Common Berry Crops

- Strawberries
- Brambles
- Blueberries
- Currants/Gooseberries
- Grapes

Specialty Berry Crops

- Elderberries
- Aronia
- Saskatoons
- Lingonberries
- Beach Plums

Specialty Berry Crops


- Chinese Magnolia Vine
- Siberian Seaberry
- Russian Olive
- Autumn Olive
- Northern Nuts
- hickory, hardy Pecans, hazelnuts, walnuts, etc.*



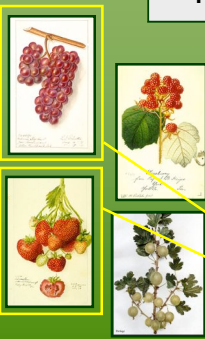
Horticultural Considerations

- Strawberries
- Raspberries
- Blueberries
- Ribes
- Grapes

- ✓ Site & Soil Requirements
- ✓ Planting Systems
- ✓ Pruning Systems
- ✓ Insect & Disease Mgt



Most Berries




Soil

- well drained
- sandy loam
- pH = 5.5 - 6.5
- SOM > 3%

Site

- full sun
- access to water
- deep soil profile
- frost protection



Insect and Disease Management

- Identify cause

See Cornell's "Berry Diagnostic Tool"

- Identify cultural management options

How to manipulate the environment to avoid problem

- Identify control strategies

See PennState's "Small Scale Fruit Production"



Insect Pests

Strawberry Bud Weevil or Strawberry Clipper

Anthonomus signatus, is a dark reddish-brown weevil is about 1/10 inch long with a head elongated into a slender, curved snout about half as long as the body.



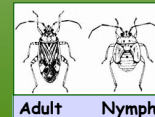
Strawberry Bud Weevil (Clipper)

Female weevils lay an egg in unopened buds and then 'clip' the stems.



Tarnished Plant Bug

Tarnished Plant Bug *Lygus lineolaris*, is about 1/4 inch long and is brown with yellowish and black dashes and a brassy appearance.



Adult Nymph



Tarnished Plant Bug

- Adult and immature TPB cause catfacing injury to fruit.
- Adults can be trapped using white sticky traps available in catalogs.



Strawberry Sap Beetle and Slugs

Strawberry Sap Beetle

The strawberry sap beetle is small, oval, and less than 1/8 inch long. They feed on ripe and over-ripe fruit causing hollowed out cavities.



Slugs

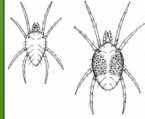
Although slugs are not insects, they can cause considerable damage that is not unlike insect damage.



Two-Spotted Spider Mites

Two-Spotted Spider Mites *Tetranychus urticae*

- Tiny pest that lives on underside of leaves
- Sucks out chlorophyll from leaves leading to yellowing
- Weaken plants over time
- Can be controlled using predators



Meadow Spittlebug

Meadow Spittlebug, *Philaenus spumarius*,
Nymphs are small, orange to green insects enclosed in white, frothy, irregular masses. These sometimes appear on the stems and leaves of strawberries at about the time of bloom.



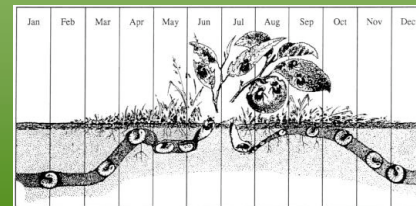
White Grubs

White Grubs

- Larvae of Japanese Beetles and related species
- The grubs are large, thick bodied, and dirty white ranging from 1 to 1-1/2 inches in length
- White grubs feed on the roots of a variety of plants and often completely cut off strawberry plants just below the crown
- When dug from the ground, the larvae always lie in a curved position, forming the letter "C."



White Grub Life Cycle



Strawberry Diseases

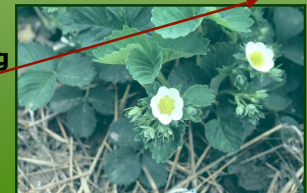
Gray Mold

Botrytis blight usually starts as a blossom blight, which eventually invades the developing fruits, causing them to rot.

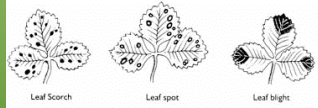


Gray Mold

- Overwinters on leaf residue
- Primary infections take place during bloom
- Narrow rows
- Wide row spacing
- Fungicides



Leaf Spots



- **Narrow rows**
- **Wide row spacing**
- **Fungicide applications**



Any Questions?

