

Identification of Diseases and Disorders of Blueberry in North Carolina

W.O. Cline
Plant Pathology Department
North Carolina State University

FRUIT ROTS



Anthracnose ripe rot
(*Colletotrichum acutatum*)



Alternaria fruit rot
(*Alternaria tenuissima*)



Exobasidium green spot
(*Exobasidium vaccinii*)



Gray mold flower blight and fruit rot
(*Botrytis cinerea*)



Phomopsis soft rot and twig blight
(*Phomopsis vaccinii*)

TWIG AND STEM DISEASES



Stem blight
(*Botryosphaeria dothidea*)



Blueberry Stunt
(Phytoplasma)

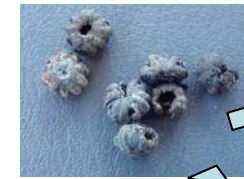


Stem canker lesions
on 1-yr old wood



Mature stem cankers
(*Botryosphaeria corticis*)

Mummy Berry Disease Cycle



Overwintering
pseudosclerotia



Apothecia development
(February-March)

Ascospores blown by
wind infect leaf and flower
shoots



Primary infection
produces conidia
(April)



Conidia carried by
insects infect
open flowers
(April)



Infected fruit turn pink,
fall to the ground (June)

Mummy Berry
(*Monilinia vaccinii-corymbosi*)

LEAF DISEASES



Leaf rust (*Pucciniastrum myrtilli*)
Note orange rust spores (uredia)
on underside of leaf



Anthracnose leaf spot
(*Gloeosporium minus*)



Septoria leaf spot
(*Septoria albopunctata*)



Blighted cuttings; orange fungal fruiting bodies on cutting (inset) and infested area of rooting bed (*Calonectria illicicola*)



Dodder (*Cuscuta* sp.) a parasitic higher plant, in summer (top), and winter. Inset shows dodder in bloom



Powdery mildew (*Microsphaera vaccinii*)



Septoria leaf spot lesions on stems (*Septoria albopunctata*)

ABIOTIC FACTORS



Hail injury to green fruit and to stems



Edema



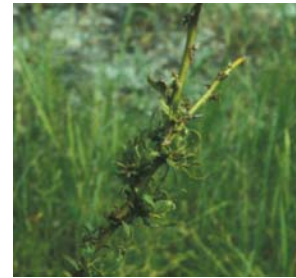
Rain splitting (Cracking)



Hurricane winds strip leaves but petioles remain attached



Berries not destroyed by late spring freezes may have internal damage (left) or scars around the calyx (right)



Glyphosate injury from applications made the previous year



Severe spray burn caused by a phytotoxic fungicide



Poor pollination results in uneven sizing, yellowing and shedding of unpollinated berries



Gramoxone droplet injury on green stems – girdled stems die rapidly and may be confused with stem blight symptoms



Distortion and scars caused by surfactant burn on fruit (right)

HERBICIDE OR CHEMICAL INJURY