

Diseases of blueberry and disease management strategies

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11 January 2018



Blueberry diseases in the Netherlands

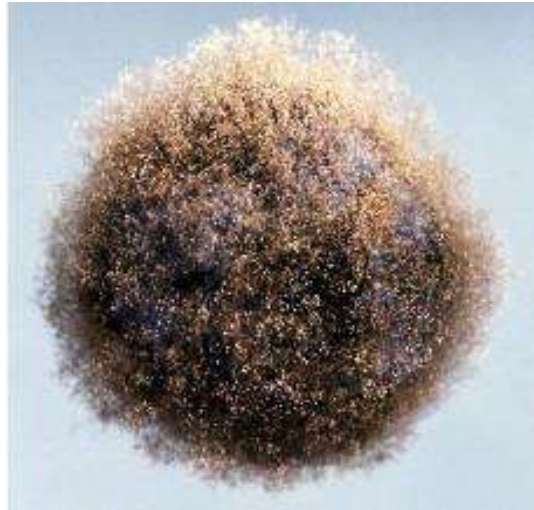
Past

Preharvest

- Godronia canker
- Botrytis blight

Postharvest

- Botrytis fruit rot
- Anthracnose/Ripe rot



Botrytis fruit rot
Botrytis spp.



Anthracnose/Ripe rot
Colletotrichum spp.

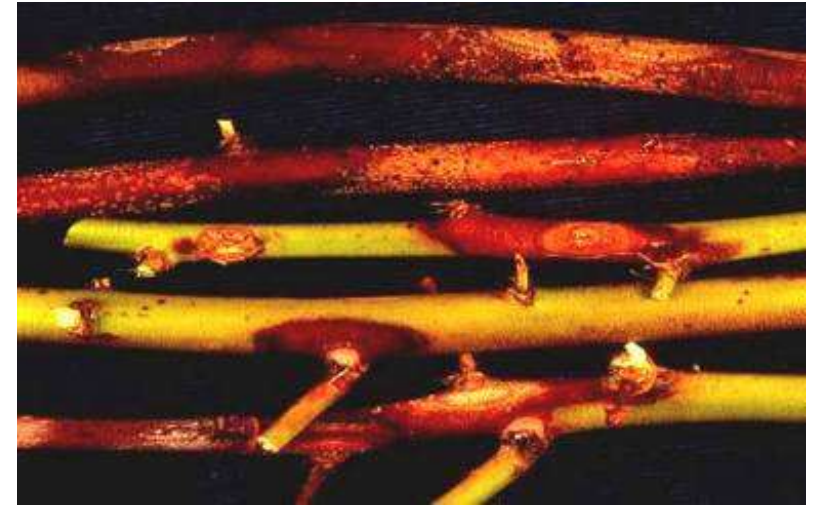
Godronia canker



Godronia canker

Godronia cassandrae

- New wood, leaf scars and bark openings
- Susceptible: spring
- Wet, cool conditions
- Survival in cankers on stems



Control

- Sanitation
- Purchase healthy plants
- Prune out infected branches
- Avoid overhead irrigation
- Cultivar selection

Botrytis blight



Botrytis

Botrytis cinerea

- Blossom, fruit, twigs
- Susceptible: bloom & harvest
- Wet, cool conditions
- Survival as sclerotia

Control

- Improve air circulation
- Remove old fruit and plant material
- Avoid overhead irrigation



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Blueberry diseases in the Netherlands

Present

???



Blueberry diseases in the Netherlands

Present

- *Pseudomonas syringae* pathovar *syringae*
- *Botryosphaeria* spp.
- *Fusarium* spp.

Current impact to the industry is unclear.

Bacterial canker



Bacterial Canker

Pseudomonas syringae

- Canes and twigs (1 year old)
- Entry through wounds
- Susceptible: late fall, spring
- Cold weather
- Survival: buds, expanding aerial plant tissue



Botryosphaeria stem blight



A. Schilder, MSU

Botryosphaeria stem blight

Botryosphaeria spp.

- *Botryosphaeria dothidea*, *B. ribis* and other spp.
- Impact reports: China 15%, USA 25%
- Entry through wounds
- Susceptible: spring, summer
- Rapid cane death in 1-2 yrs old plantings
- Distinct “flagging” symptom
- Clear discoloration under the bark when cut longitudinally
- Survival: dead canes in a range of woody host plants

Fusarium diseases of blueberry

Root rot	Argentina
<i>F. proliferatum</i>	30%
Blight	Argentina
<i>F. acuminatum</i>	10%
Wilting	China
<i>F. oxysporum</i>	5%
Fruit rot	China
<i>F. acuminatum</i>	5%



Fusarium blight (Wright *et al* 2014)

Blueberry disease management - Future directions

Knowledge of the pathogens:

- Identity
- Survival/Overwintering
- Conducive climatic factors
- Timing of infection
- Infection process
- Disease development



Effective and sustainable
disease management
strategies

Currently need more
information about emerging
pathogens

Thank you!

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