



## Botrytis Blight of Wild Blueberry

Botrytis blight can be found in most New Brunswick wild blueberry fields but is less prevalent and less destructive than Monilinia blight. Following wet weather during mid to late bloom, individual blossoms or entire fruiting clusters will wither and die. The disease is not a problem during the summer months but can cause rotting of harvested fruit. It is believed that Botrytis blight is less of a problem where burning is used for pruning, and the disease can be managed with properly timed fungicide applications.

### *Disease Symptoms*

Botrytis blight appears in the field when the bloom of the earliest clones starts to senesce. Infected blossoms turn brown but remain attached to the stem (Figure A). Leaves, immature fruit and even stems may be killed. The grey mould fungus sporulates freely on these diseased tissues and can be easily seen if affected fruiting stems are examined (Figures B and C). Plants infected with Monilinia blight may also become infected with Botrytis blight and both diseases can be present on a single fruiting stem. When the bloom has fallen from the plant and the fruit begins to size the blight phase of the disease ceases. Spores are produced during the rest of the season however on those tissues killed by the fungus. When these spores are splashed or blown to ripening fruit they can cause a rot of harvested fruit. This is primarily a problem for fruit harvested for the fresh market. For fruit destined to processing markets, the waiting time and holding temperature of the fruit before processing are the major factors which can affect the development of grey mould rot.





## ***Disease Cycle***

The fungus (*Botrytis cinerea*) which causes this disease produces spores during the bloom period on weeds and blueberry leaves from the previous season. Blossoms are susceptible to infection, particularly once they begin to senesce. This differs from Monilinia blight which infects developing buds during the period of bud break to pre-bloom. For infection to occur, rain or an extended period of fog is necessary. When the weather is warm, the length of time the plants must remain wet for infection to occur is shortened. Botrytis blight may be more severe in fields where the bloom has been damaged by frost or where some winter damage has occurred. When all the bloom has dropped, the blight phase of the disease ceases. The fungus continues to sporulate on infected plant parts and these spores can be spread to ripening fruit. Harvested fruit which is stored for even a brief period can develop fruit rot.

## ***Control Strategy***

Since Botrytis blight does not cause any permanent damage to plants, the decision to control blight is based on the cost of the control measures, the value of blueberries and the expected crop loss from blight. The risk of Botrytis blight will be greater in years when there are a frequent number of days with precipitation during the pre-bloom and bloom period. Inspect the flowers of the earliest blooming clones, if Botrytis blight is detected and wet weather is forecast, a spray program for Botrytis control may be required. Fungicides for Botrytis blight control should be applied prior to the commencement of any wet periods, on a five to seven day schedule during bloom. It is important to ensure good spray coverage and bloom not open when the spray is applied may not be adequately protected. Choosing fungicides that also suppress Septoria leaf spot should be considered for fields infested with this disease as the application timing in cropping fields is similar for both diseases. To prevent Botrytis rot of harvested fruit, pre-cool and store at 0 to 2<sup>o</sup> C.

Fungicides can also be applied during fruit ripening period to reduce post-harvest fruit rot. This may be a benefit for fruit sold into the fresh market as it will extend the shelf life of the harvested fruit.

For a list of products registered for the control of Botrytis blight, please consult the Wild Blueberry Pest Control Selection Guide . (<http://www.gnb.ca/0171/10/diseases.pdf>)

To view additional images of Botrytis Blight go to our Integrated Pest Management Images. (<http://daamaaextweb.gnb.ca/010-002/Default.aspx?Culture=en-CA>)