

This update is produced by Dr. Dalphy Hartevelde, postdoctoral research associate at WSU Mount Vernon Research and Extension Center. Her research focuses on the epidemiology and control of fungal diseases of highbush blueberry in the Pacific Northwest. This is the last weekly "Mummyberry Update" that provides information on the timing of apothecia (mushrooms) development from mummified overwintering berries in Washington's Skagit and Whatcom counties. The apothecia produce infectious ascospores that infect emerging flower and leaf buds (Figure 1). The first two tables show the average percentages of flower and leaf buds at different developmental stages of four different cultivars and indicates when susceptible tissue is available on the plants. The third table shows the different developmental stages of mummies of the pathogen and when the mummies are producing ascospores (when cups or mushrooms are more than 2 mm open). This information is provided to help the timing of disease management practices to control mummyberry. **Development of mummies and host reflect conditions occurring in the fields we are currently monitoring and may be different from stages of development in other blueberry fields in these same counties, in different counties, or for different blueberry cultivars.**

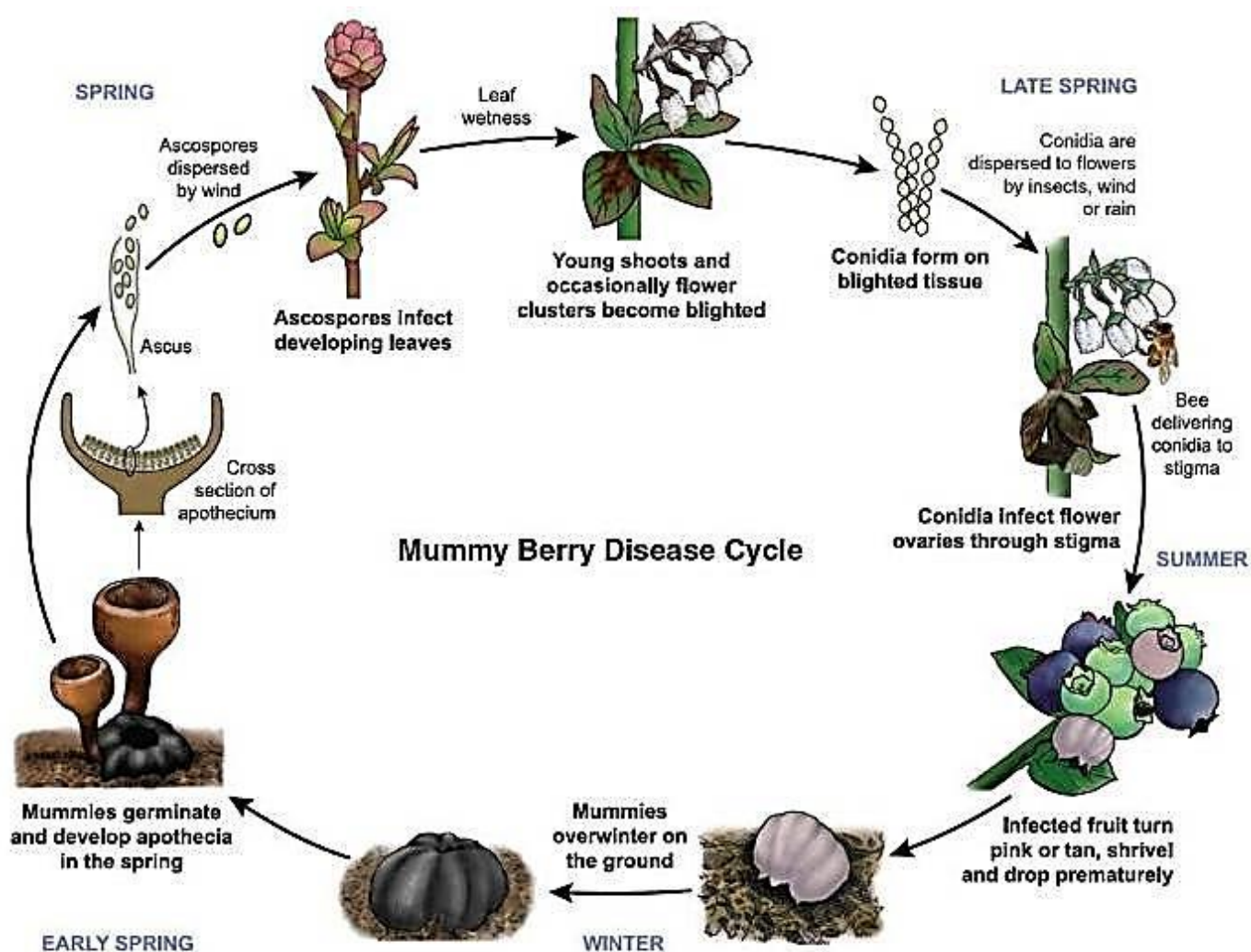


Figure 1: Disease cycle of mummy berry of blueberry. Annemiek Schilder, Michigan State University

April Week 2- (4/11-4/15)

Flower Stage



Tight cluster



Early pink bud



Late pink bud



Early bloom

		Tight cluster	Early pink bud	Late pink bud	Early bloom
Whatco	Duke	0.0%	11.4%	17.1%	71.5%
	Draper	0.0%	34.3%	42.6%	23.1%
	Bluecrop	0.0%	0.9%	53.7%	45.4%
	Liberty	0.0%	22.2%	41.7%	36.1%
Skagit	Duke	0.0%	9.3%	6.5%	84.2%
	Draper	0.0%	41.0%	31.3%	27.8%
	Bluecrop	0.0%	4.6%	36.1%	59.3%
	Liberty	0.0%	26.9%	33.3%	39.8%

Percentages represent averages of three fields per cultivar for each county. Red indicates susceptible

Leaf Stage



Bud swell



Early green



Late green



Shoot expansion

		Bud swell	Early green	Late green	Shoot expansion
Whatcom	Duke	0.0%	0.0%	0.0%	100.0%
	Draper	0.0%	0.0%	0.0%	100.0%
	Bluecrop	0.0%	0.0%	0.0%	100.0%
	Liberty	0.0%	0.0%	0.0%	100.0%
Skagit	Duke	0.0%	0.0%	0.0%	100.0%
	Draper	0.0%	0.0%	0.0%	100.0%
	Bluecrop	0.0%	0.0%	0.0%	100.0%
	Liberty	0.0%	0.0%	0.0%	100.0%

Percentages represent averages of three fields per cultivar for each county. Red indicates susceptible

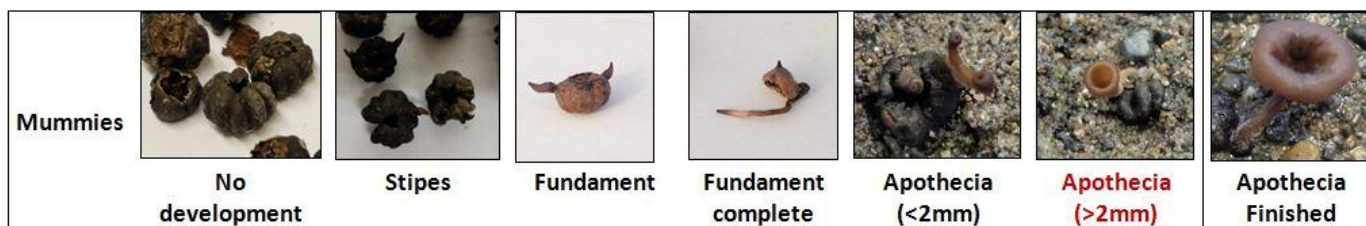


Figure 2: Stages of apothecia development from mummified berries.



Figure 3: Apothecia after releasing ascospores.

In the fields monitored in Whatcom and Skagit counties the plants were past their susceptible stage for primary infections and no spore releasing apothecia were detected. This is the last "Mummyberry Update".

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