

Pruning Strategies for Downy Mildew Control in Hops

Downy mildew is the most widely spread and destructive disease of hops in Ohio and other northeastern states. Downy mildew is caused by a fungal-like pathogen. The disease is systemic and can cause significant yield and quality losses in hop crops annually. In the spring, the primary source of inoculum is infected primary shoots. To prevent the secondary spread of downy mildew, these shoots must be removed. In addition to potentially spreading disease, these first hop shoots of the year are typically “bull shoots” which are hollow, unwanted shoots that are not desirable to be trained up the coir.

Here at the South Centers along with Dr. Ivey, we researched different methods of removing the first hop shoots of the year. The most common method of shoot removal is mechanical hand pruning using pruning shears. However, this process is costly, time consuming, and if proper sanitation practices are not used, it can lead to the unintentional spread of the pathogen. An alternative to mechanical pruning is flaming. If timed correctly, flaming can kill infected primary shoots without leaving any plant debris and without damaging the crowns. In addition to flaming the shoots, we also looked at weed eating the shoots off in early spring along with chemical removal of the shoots with any early application of herbicide.

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