

Crowning and Training: Early Season Hop Yard Maintenance in the Northeast

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Introduction

Early season hop yard maintenance includes several critical tasks including crowning and training. These are essential agronomic practices that influence hop plant growth and, therefore, hop yield and quality.

Crowning

Crowning is the act of removing the top portion of the hop crown prior to or just following shoot emergence. This is primarily done through mechanical means (Figure 1), but crowning can also be accomplished with heat and/or chemicals. Crowning is used in hop production for two purposes – first and foremost, as a hop downy mildew management tool, as well as a harvest timing tool.

The first shoots have an irregular growth rate and are not the most desirable for producing hop cones later in the season. However, the minute the plant is cut back, the growth clock starts. Therefore, farmers can better regulate when plants start growing with crowning so that they reach the top of the trellis, start to flower, and mature all precisely at the right time.

As a general rule of thumb, first year hop plantings should not be crowned to allow for root establishment. Second year hop yards should be crowned if downy mildew was a problem the previous season; and third year and older hop yards should be crowned.

determine



Figure 1. DR trimmer fitted with a modified metal blade for hop crowning.

Training

Training hop vines is another critical early season agronomic practice in the hop yard (Figure 2). The vines should be trained to 3 or 4 shoots per hill.

Figure 2. Training hops at Borderview Research Farm.



Figure 3. The effect of training early, just right, and late. Illustration courtesy of David Gent.

Crowning and Training Tips

Crowning and training developed by hop growers in the Pacific Northwest do not work well for our short growing season in the Northeast. Farms in our areas should find the best dates to crown and train the varieties grown here. Therefore, it is important that growers closely observe and document crowning and training dates for each variety, flowering dates for each variety, as well as harvest dates.

Since Cascade has such a late burr (flowering) date, it is recommended that it be trained first and as early as possible (Figure 4). In fact, one western grower suggested that Cascade not be crowned in the Northeast, just trained because of its later burr development. After Cascade, it is suggested that

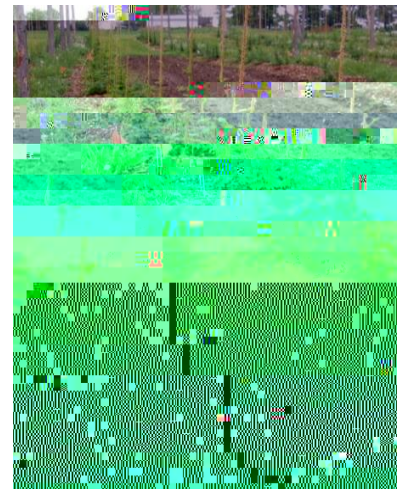


Figure 4. Early trained Cascade plants.