Information Resources for Highbush Blueberry Growers in Vermont

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The following resources address key issues associated with growing highbush blueberries.

Production Guides

Overview of growing blueberries from UMaine Extension covers the basics.

The New England Small Fruit Management Guide provides crop-specific information on blueberries, and other crops, along with general guidance on cultural practices.

The slightly dated but excellent Highbush Blueberry Production Guide covers crop physiology as well as production issues.

Varieties

Here is a list of blueberry varieties suggested for northern New England by UMaine Extension. In coldest locations consider a mix of half-high and hardy highbush varieties. (Half-highs are cross of low bush aka wild, and highbush.). Here's another list of blueberry varieties from UNH Extension. This site provides information on half-high varieties developed by U. Minnesota.

If you can plant at least three different varieties that may enhance pollination and yield. Select only the hardiest varieties, rated zone 3 or 4, to avoid winter injury. A mix of early, mid- and late-ripening varieties will extend the harvest season. Note that late varieties are most susceptible to SWD (spotted wing drosophila damage) so you may want to avoid these

Here's a list of nurseries selling different varieties, from Cornell, though may be a bit out of date. Some sources used by local growers include Nourse Farms, MA; DeGrandchamp Farms, MI; Elmore Roots, Wolcott VT and St. Lawrence Nursery in Upstate NY.

Soil Testing

Before planting it is critical to take soil test(s) to determine if the pH is in the optimal range of 4.8 - 5.2. Test results also include major nutrient levels (P and K) that are best added prior to planting.

Soil test analysis is $17 per sample through the UVM Agricultural and Environmental Testing Lab, submission form and sampling instructions are on the web site. If areas have different soil types or management histories they should be sampled separately.

Apply sulfur, if needed, to lower soil pH of the field or the (wide) strips where blueberries roots will grow (~6-feet wide when mature). Also apply P, K, Mg as needed based on soil test. In established plantings apply sulfur to the soil surface at a maximum of 400 lb/acre in fall and spring as needed, until the pH is in the optimal range. Here is a fact sheet about applying S to lower soil pH. Elemental sulfur comes as a powder, or in prills which can be easier to apply. Some brands are approved for organic production.

Tissue testing

To optimize fertilization, use leaf analysis. It's much more instructive than soil tests for understanding what perennial fruits plant have taken up from the soil. Typical cost is $30 per sample. Dairy One lab in NY includes Cornell recommendations. The web site also provides sampling instructions. Penn State and other land grants also offer this service. The optimal time to sample is July 15 - August 15, when leaves are mature but have yet to senesce.

Nitrogen fertilization

Until you have leaf analysis results, follow info in this article for N fertilization. You can substitute soybean meal (~7% N) at 3x the rate of ammonium sulfate if you want to use an organic fertilizer:

Irrigation

Consider laying two drip lines. One line may suffice at first when plants are small, but eventually two per row, on each side of the crop, will be needed to assure an even supply of water to the entire root zone. Irrigating to supply water consistently can enhance crop yield especially in seasons with low rainfall in summer. If you need help designing the irrigation system, many growers use Brookdale Fruit Farm irrigation supply in NH.

Mulching

Acquire lots of wood chip mulch from reputable sources (to avoid getting contaminants such as trash or non-woody materials). Apply mulch all around plants, ideally every year, 3-4 inches deep, before forsythia blooms (to cover up any mummyberry fruiting bodies). Frequent mulching helps suppress weeds, conserve moisture and prevent competition with grass in the alleyways – keep the mulched area wider than the canopy to avoid that competition

Pruning

In established planting the first step is usually to cut out 2 to 4 of the largest, oldest canes to make room for younger canes. Canes should be cut right at ground level, which will require a large set of loppers, or power pruners. Then do some finer pruning. Here is an articles on pruning and rejuventation, and one on renovating old plants by cutting them to the ground.

Pest Management

To get familiar possible insect pest and diseases to scout/monitor for the New England small fruit management guide is a good place to start.

This comprehensive guide from Michigan State University briefly describes most all blueberry insects, diseases and IPM /scouting practices.

The berry diagnostic tool at Cornell can help with identifications of blueberry problems.

Netting

Consider netting systems to manage birds and Spotted Wing Drosophila (invasive fruit fly that attacks soft fruit in late summer/fall). These webinar slides show a variety of different grower netting systems for SWD (which also exclude birds). See this page for general SWD info. Netting is available from Berry Protection Solutions and DuBois Agrinovation

Economics

Highbush blueberry enterprise budgets have been developed by Rutgers Univ., Univ. of Tennessee, and Univ. of Kentucky among others.

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