## Hops in Virginia: Need-to-Know Information about the Industry

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**Background:** Hops were grown in Virginia even in the days of Thomas Jefferson, but production eventually shifted from the east coast to the Pacific Northwest. In past decades, commercial hop production was not substantial in Virginia. However, as the craft brewing industry surged, renewed interest in hops production led to a rapid increase in the number of hobby and commercial growers in the state. Surveys have indicated the presence of several dozen small commercial growers in Virginia.

Production and Management: Hop cones, the harvestable flowers from female plants, grow on vine-like "bines" which emerge each spring from a long-lived perennial crown. Bines are trained to grow clockwise vertically around thick string or coir attached to a tall overhead trellis. Hobby growers may train hops onto coir attached to the top of a pole, building, or another tall structure. Hops need well-drained soil, irrigation, and full sun. They require fertilization to support vegetative growth early in the season and production of hop cones during reproductive stages. After hopyard establishment, major chores include stringing the trellis, training bines, controlling weeds, scouting for pests, irrigation, fertilization, harvest, and winter preparation. Diseases of concern in Virginia include hops downy mildew, powdery mildew, and viruses and viroids. Pests of concern include Japanese beetle, potato leafhopper, hop aphid, mites, and others. The most popular cultivar in Virginia is Cascade, though a wide variety of cultivars are grown in the state for experimental and production purposes.

Considerations for New Growers: Since hops are labor-intensive and many hop chores are done by hand in Virginia, a hopyard of even one acre is a large commitment. Virginia's practices and marketing systems currently differ from those employed by the major hops states. Many growers begin with a few rows or a fraction of an acre, as this allows for future adjustments to trellis design, layout, and cultivar selection. Be aware that hops represent a considerable financial investment, and growers who expect income from the crop should perform careful financial analysis and market analysis prior to engaging in production.

Harvest and Marketing: Yield may be insignificant in the first year after establishment, but production increases as plants mature around their third year. Cultivar selection and management greatly influence yield. Virginia hops are often harvested by hand, though some growers have mechanized harvest. Though some small growers may sell "fresh" or "wet" hops to brewers immediately after harvest, some growers now dry and pelletize their hops—an option which offers the greatest marketing and storage flexibility. Current marketing, production, and mechanization strategies are likely to change with time, particularly if processing infrastructure becomes available to more growers in the coming years.

**Industry Development:** Numerous grower groups provide networking, industry promotion, resources, and education. These include the Old Dominion Hops Cooperative, Loudoun Hops Association, Northeast Hop Alliance, Southern Appalachian Hops Guild, Hop Growers of America, and others. Links to grower resources can be found at http://ext.vt.edu/agriculture/commercial-horticulture/hops.html