Lily Calderwood
February 2, 2012

Research Abstract for UVM Student Research Conference

New England is home to over 175 high quality microbreweries. Public interest in sourcing local foods extends into beverages, and the demand for local and organic brewing ingredients is on the rise. Although hops are not a new crop in the Northeast, they have not been grown in the region on a commercial scale for almost 100 years. The demand for locally sourced hops has reached the farming community resulting in a sharp increase in hop producers from six in 2009 to twenty two in 2011. All growers in the Northeast are novices at growing hops and are turning to UVM Extension for help and guidance. Pest management information developed for other parts of the world are generally not applicable to the humid Northeast, leaving growers bereft of research-based information for sustainable pest management in hops. Additionally, pest pressures seen in the Northeast are different than those normally observed in other regions, namely potato leafhoppers (*Empoasca fabae*), Eastern comma butterfly (*Polygonia comma*), and Japanese beetles (*Popillia japonica*).

It is well documented that intercropping can attract beneficial natural enemies and enhance their populations, while maintaining a ground cover that can compete with weeds. However, no research has been performed on intercropping in hops in the Northeast. The goal of my research in collaboration with the University of Vermont Extension will be conducted in order to provide accurate and necessary outreach materials for hop growers to effectively adopt IPM practices, leading to the sustained economic viability of this region's hop growers. The impact of cover cropping on natural enemy abundance and diversity in hop production will be evaluated at Borderview Farm in Alburgh, VT. This research leads to improving economic and environmental sustainability of hops production while helping growers produce a high-quality product that meets the demands of local brewers.