

**Title:** Limiting Bird Damage to Fruit Crops in New York: Damage Assessments and Potential Management Strategies for the Future

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**Abstract:** Bird damage to fruit crops is an enduring and costly issue facing growers. It is necessary to identify cost-effective ways with which growers can prevent birds foraging on their crops. This project is part of a multi-state USDA study. The primary goal is to provide fruit producers with cost-effective and environmentally-sustainable strategies for bird damage management, based on robust field testing and clearly-identified costs and benefits. We have completed three seasons of field work in central New York State, including damage assessments and bird surveys at 96 sites. Study crops were sweet cherries, Blue Crop blueberries, Honeycrisp apples, and Pinot Noir wine grapes. Crop loss data from 2012 indicated that fruit location, within the edge or interior of a plot, did not have a statistically-significant effect on the presence of bird damage. For sweet cherry sites, overall average crop loss was estimated to be 13% over the 2012 and 2013 seasons. In blueberry plantings, birds damaged 15% of the fruit for both years collectively. Apples had an overall average loss of 1.5%, and 3.4% of wine grapes were damaged by birds. During 2013, we pilot tested several strategies for deterring birds, including distress-callers, hawk kites, and air dancers, as well as examining the effects of a combination of methods and change in location on technique effectiveness. Based on 2013 results indicating that air dancers were the most effective of the deterrents tested, further experimental testing in 2014 focused on the use of air dancers. Overall study results will be presented.