Due to humid weather, one of the major challenges in apple production in New England is the control of the fugal disease Apple Scab, caused by the pathogen *Venturia inequalis* (Cooke) Wint. A fairly new apple cultivar, 'Honeycrisp', was produced in 1960 by the University of Minnesota breeding program and was bred to be an exceptional, cold hardy, high quality apple, that is "slightly resistant" to apple scab. The objective of this study was to evaluate the efficacy of natural resistance inherent in 'Honeycrisp' apples to reduce the amount of fungicides sprayed without a significant increase in disease incidence or severity. 'Honeycrisp' trees were arranged in a completely randomized design with six treatments of three-tree replications at the Horticultural Research Center in South Burlington, VT. Two foliar assessments were completed on June 19, 2012 and August 5-7, 2012. In autumn a PAD (Potential Ascospore Dosage) assessment was performed to determine the potential ascospore dosage for the next growing season. No significant differences were observed between treatments for foliar scab incidence in June. No significant differences were observed between treatment means for foliar scab incidence, nor severity in August. Overall there were no significant differences noticed between June and August incidence levels. The PAD assessments revealed that 'Honeycrisp' was low risk according to the sequential sampling technique chart. 'Honeycrisp' only had 1 scab lesion observed out of 100 sampled terminals. With an unconventional year for scab development, a call for a repeat of the experiment along with the complete addition of 'MacIntosh' into the study to obtain comparable data is needed. Overall, these data indicate that fungicide applications can be reduced from 'Honeycrisp' without an increase in scab incidence or severity, but additional data is needed.