

FEEDING DAMAGE BY THE BROWN MARMORATED STINK BUGS ON NURSERY CROPS

Victoria Skillman^{1,2} and Jana Lee²

¹Dept. Horticulture, Oregon State University

²USDA ARS Horticultural Crop Research Unit Corvallis, Oregon

skillmav@oregonstate.edu, Jana.Lee@ars.usda.gov,

The brown marmorated stink bug (BMSB), *Halyomorpha halys*, has become a major established pest across the US since it arrived in 1996. It is known to feed on ~200 different plant species, many which are important nursery crops. In general, damage caused by BMSB can be visibly seen on bark, fruits, leaves, and stems, all which are aesthetically important to the nursery industry. Oregon has one of the largest nursery industries in the U.S. and is home to roughly 2,000 nurseries. Many growers are worried how BMSB feeding will impact the appearance of the plants and growth.

Therefore, two experiments examined how BMSB feeding might damage nursery crops. The first study looked at adult BMSB feeding damage on branches of established trees in a stock block of five plant types (*Tilia*, hawthorn, maple, apple, cherry, and elm) over one month. Four physical measurements were taken to assess damage by BMSB. They were the change in branch length, total leaf area, total number of leaves, and total dry weight. The second study looked at adult BMSB feeding on seedlings of eight plant types (*Tilia*, Ginkgo, *Syringa*, hawthorn, maple, apple, cherry, and elm) at one month and two month time points. In this study, the same four measurements were taken as well as change in diameter of the trunk to assess feeding damage by BMSB.

Overall there was very little difference between branches caged with BMSB or none (control) for one month in the field for the four physical measurements taken. There were also few differences between seedlings with BMSB and none for the five physical measurements taken. However, in both studies the adults did reproduce, with 363 nymphs developing to the 2nd instar stage in the seedling trial.

