NUTRIENT PROFILES OF BROWN MARMORATED STINK BUGS

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The brown marmorated stink bug (BMSB), *Halyomorpha halys*, has become a major established pest across the US since it arrived in 1996. Understanding the nutrient profile of BMSB in the wild can potentially pinpoint vulnerable periods for targeted management, and may help predict how plant resources such as crops are utilized. Some information on nutrient status of BMSB pre- and post-overwintering is available from Japan, and more recently from lab feeding studies in Virginia. To date, there is no information on nutrient profiles of naturally-occurring adult BMSB in North America.

The objective of the project was to understand the general nutrient dynamics (sugars, lipids, and glycogen) of wild BMSB adults in the Willamette Valley of Oregon throughout the summer and emerging from overwintering. Summer BSMB were collected from holly at five sites throughout the valley. Overwintering BMSB were collected as they emerged from overwintering structures. All samples were weighed, measured, and ran for nutrient. Females were also dissected.

The general trends are overwintering BMSB had lower nutrient levels compared to summer adults. The nutrient steady decreased as they emerge later. Summer BMSB nutrient level seems to dip mid-summer with peak egg loads in early summer.

Another field season is planned to continue looking at the nutrient levels at the time of emergence and through the summer field season in the Willamette Valley of Oregon.

Collecting Dissection Bioassay