HOST RANGE OF THE EXOTIC BROWN MARMORATED STINK BUG,
Halyomorpha halys, (Hemiptera: Pentatomidae),
IMPLICATIONS FOR FUTURE DISTRIBUTION

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ABSTRACT

Halyomorpha halys, (Hemiptera: Pentatomidae),
is a pest in eastern Asia on soybeans and
woody plants, including broadleaved trees
and fruit trees. A population was discovered
in Allentown, PA in 2001. H. halys is also a
nuisance pest as it overwinters in homes and
other buildings. Based on earlier reports to the
Lehigh County Extension in Allentown, the sting
bug had been established since at least 1996.

H. halys is now reported throughout
Pennsylvania and New Jersey; in 2003 a
population was discovered in Hagerstown,
MD. Specimens were found in 2004 in
Delaware, West Virginia, and Virginia. An
isolated population was reported in 2004 in
Portland, OR, and four ornamental host plants
were verified in 2005. Preliminary analysis
of mitochondrial DNA suggested only one
maternal haplotype in the United States.
However, analysis of specimens from potential
source populations in Asia as well as from
isolated populations in the United States will
have to be completed to show a conclusive
pattern (Carter, unpublished data).

Host plant surveys indicated that H. halys is
polyphagous with patchy and sometimes dense
populations, but limited to landscaped urban
areas. Damage to fruit trees and feeding
on vegetables was observed in gardens.
Until populations reach commercial growers,
population dynamics in agro-ecosystems will
not be apparent. Woody plants including
ornamentals and trees are primary hosts
in urban landscaped areas. However, in
Pennsylvania, a population was observed
in 2005 to invade a soybean field, and as
host range expands south, pest populations
on soybeans and fruit trees are likely to
occur. Also, populations were univoltine in
Pennsylvania, however that is likely to change
with southern range expansion, increasing the
potential for crop damage.