

**These color photos illustrate articles throughout the publication. Titles are bolded and page numbers are given at the end of the caption.**

Volunteers working with MSU to plant trees for evaluation as potential replacement species for ash. See **Alternatives to ash for Michigan and the Upper Midwest: Planting demonstration and website**, page x.



Viewing IR-4 evaluation plots for new insecticides at Zelenka Nursery - See **Nursery IR4 projects**, page x.



Methyl bromide alternatives research evaluation plots at Sawyer's Nursery - See **West Michigan nursery growers summer tour**, page x.



Master gardener volunteers learning techniques for detecting emerald ash borer larvae - See **Emerald ash borer volunteer education**, page x.

**Michigan State Flowering Plant Survey**

The most fun conditions will be to try a set of plants that will be available in the next year after the job done is done. Please indicate if it is a new plant.

**Check here to display the flower array:**

Select the letters for all the plants pictured that you would most likely use in an outdoor garden bed.

UA UB UC UD UE UF UG UH UI

Select the letters for all the plants pictured that you would most likely use for decoration in your home.

UA UB UC UD UE UF UG UH UI

Select the letter for the plant pictured whose flower color you most prefer.

UA UB UC UD UE UF UG UH UI

Select the letters for all the plants pictured that you would most likely purchase to give as a gift to a friend.

UA UB UC UD UE UF UG UH UI

Please answer all items of the following questions that are asked. As you read, please indicate which plants you like and not like. These questions are only for the plants that you have selected to be used in your garden or home. Your response is confidential and your information will be protected to the extent of the law.

**Flowering Plant Array**

A B C

D E F

G H I

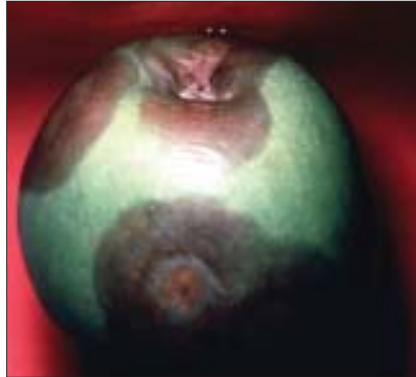
Two images of potted plants: one with orange flowers and one with purple flowers.

A selection of plants used in a survey to evaluate the potential of plants traditionally used outdoors for indoor use. See **Which flowering Shrubs and herbaceous perennials could retailers market as indoor flowering potted plants?**, page x.

## Color plates

**At left:** Green apple used to bait *Phytophthora* spp. and *Pythium* spp. from irrigation water; pathogenic species produce fruit rot symptoms. **At right:** On the left the effects of *Phytophthora* root rot.

The rhododendron on the right is healthy. See **Pathogens in ponds and recirculated irrigation systems in Michigan nurseries: the *Phytophthora* water molds,** page x.



*Phytophthora* root rot can be devastating in Fraser fir. See **Phytophthora root rot of Fraser and other true firs in Michigan,** page x.



A portion of the green roof on Ford Motor Company's new assembly plant in Dearborn. See **evaluation of potential plant species for green roofs,** page x.



Symptoms of sudden oak death:

- 1) Canker oozing sap on oak trunk
- 2) cankered area with bark removed - note discolored wood
- 3) Leaf spots on ericaceous plants infected with SOD - See **Protecting Michigan forests from the introduction of Sudden Oak Death,** page x.





Christmas tree-sized Fraser fir trees may produce upwards of 1,000 cones. See **Precocious cone production in Fraser fir**, page x.



Measurements of height growth in Fraser fir. See **Nitrogen management in Michigan Christmas tree plantations**, page x.



Needle loss ratings of 7 (<90%) and 0 (no loss) - See **Identifying Balsam fir Christmas trees with superior needle retention**, page x.



Removing fir cone buds by hand is labor intensive and can add significantly to a grower's costs. See **Precocious cone production in Fraser fir**, page x.



Dr. Mel Koelling applying one of the shearing treatments - See **Scotch pine shearing regimes-tree grade relationships**, page x.



Larva of jack pine budworm, shown feeding on needles, the most important pest in the jack pine ecosystem. See **Jack pine budworm ecology, impacts and management in Michigan forests**, page x.



Emerald ash borer: 1) infested ash tree, 2) adult, and 3) larva. See **Biology, ecology and control of the emerald ash borer**, page x.



Beech trees heavily infested with beech bark scale. See **Impacts and spread of beech bark disease in Michigan**, page x.



**At left:** *Tomicus piniperda* larvae develop in phloem of recently cut, killed or severely stressed pines. **At right:** Adult pine shoot beetle, *Tomicus piniperda*. See **Host preference, phenology and potential impacts of the pine shoot beetle**, page x.



Extensive larval mortality occurs during *Entomophaga maimaiga* epizootics. A characteristic late-instar gypsy moth cadaver killed by the fungus (inset). See **Factors affecting the success of the gypsy moth biological control agent *Entomophaga maimaiga***, page x.