



MASTER GARDENER Communicator

September 2002

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Important news about our award-winning newsletter's future!

I hope this newsletter finds you enjoying the beautiful weather and gardening outdoors. First of all, this summer has been great. We have taken over 300 calls on the hotline and the volunteer opportunities have grown in number this summer. Thanks to all those that helped out at the Kalamazoo County Fair doing childrens' activities.

As many of you already have seen budget cuts at your own offices and municipalities, we too here at the office have had a budget reduction. This should not affect the quality programming done by the office and also I would like to say that Master Gardener is here to stay!

What this budget reduction will affect is the mode of delivery for the newsletter and other announcements to you.

You have already seen an increase in the amount of e-mails from me and may have even turned into the office, the update on Master Gardener information.

This will be the last newsletter that is mailed hard copy to all Master Gardeners. From now on, the newsletter will be available for viewing by visiting:

www.msue.msu.edu/mastergardener/kalamazoo

No Internet service or computer? Do not fret! If you have turned an e-mail address into us, we will assume that you have Internet access and will be e-mailing you a reminder each time the newsletter is published on the web quarterly.

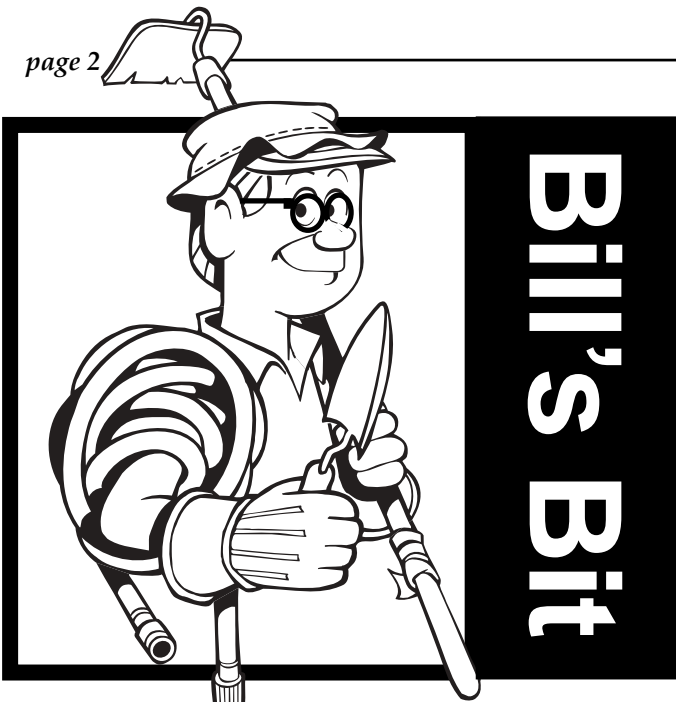
If you do not have e-mail, you will still receive a hard copy in the mail.

The great thing about having the newsletter on the web is that it will be in full color! You can print out the newsletter with the workshop flyers, continuing education quiz and other valuable information for your personal use.

I hope this will reduce the cost of the newsletter, while still maintaining an award-winning newsletter.

Thanks to all for your continuing patience and understanding in these times of difficult economic times.

Emelee Reifschneider
MSU-Kalamazoo Extension
Master Gardener Coordinator



Keeping in the true educational vein of the Communicator I thought I'd start off this installment of Bill's Bit with a geography-gardening quiz. Don't worry, these questions are for entertainment use only. There are no incorrect answers.

No. 1, true or false, if 16 hours of sunlight is ideal for a garden then nothing could be better than a place that has sunlight 'round the clock.

No. 2, true or false, you would be in horticulture heaven if you didn't have to worry about pesky trees shading your garden.

No. 3, true or false, commercial greenhouse gardening during the winter is profitable because heat and light bills aren't expensive.

No. 4, true or false, such a place exists.

Okay, is everybody scratching their head yet? Good! The answer to No.1 is, maybe. While it is true that during the summer this place really does have 24 hours of sunlight — during the winter there are weeks on end when you would never see the sun.

The answer to No. 2 is true — but could you be happy if from horizon to horizon, north to south and east to west, there was not a single tree in sight?

Believe it or not, No. 3 is true too! Not only is heat practically free for the taking, electricity is cheap and generated pollution-free.

By now, every single one of you is certain I am suffering from some kind of delusion. There is no way that any "one" place on earth could have all these features. Alaska has the midnight sun (No. 1) and No. 2 could be Alaska again or maybe the Sahara desert. But cheap and abundant, pollution-free heat and electricity? No way!

Yes way! The answer to No. 4 is true and the place is Iceland!

Ever since I was in college I have wanted to go to Iceland and back in July I finally went. (No. 5, true or false.) My lovely and adventurous wife, Nancy, went with me. NOT!!! Nancy has never wanted to go and

nothing will ever convince her to go to Iceland. So my younger son, Tim, and I went.

The blessing and curse of the island is one in the same thing — geological activity. On the plus side, Iceland has been able to harness geothermal heat, from deep down in the earth, to generate electricity in abundance. In rural areas, water from natural hot springs heat homes and greenhouses. As a matter of fact, the entire capital city of Reykjavik is heated by hot water pumped from underground.

On the negative side, Iceland is the most volcanically active place on earth. Much more so than the Hawaiian islands. In 1875, a volcano in the center of the island exploded, covering vast areas under several feet of pumice. Thousands of acres of pastureland and farmland were lost.

Lava flows are equally destructive and never ending. One day we spent five hours, traveling 45 miles over a recent, 1962 lava flow that was 1,100 square miles in area. That's big!

I could go on and on but it looks like I am running out of space. Here's the story about the trees: back in 930, when Iceland was settled, trees were just about everywhere. During over 1000 years of habitation most trees were cut down. Today there is a reforestation program in place; about 20% of the island is tree covered.



One of Iceland's natural wonders, the geyser Strokkur, erupts every 10 minutes to a height of about 113 feet.

FROM THE HOME OFFICE

Hello all, here is a chance to help Master Gardeners in Van Buren with one of their projects. Remember it is a Master Gardener Booth and therefore is considered MSU Extension Required Volunteer hours.

Thanks,
Emelee

Here's an opportunity to gain volunteer hours at a fun weekend event. We're going to have a booth near the Arts & Crafts area of the Paw Paw Harvest & Wine Festival and need your help "manning the booth". The more the merrier, many hands make light work ..., etc.

Volunteer options are as follows:

Saturday, Sept. 7 -- 8 to noon, noon to 3, and 3 to 6:30
Sunday, Sept. 8 -- 9:30 to 2 and 2 to 6

We are hoping to have a number of people there during each time period. Please respond ASAP directly to me with your shift selection to ensure your choice is still available. But, if one of those doesn't fit into your schedule, make up your own shift, we're flexible, just let us know. We need your help! Reply to - kjstover@aol.com - or, Emelee at MSU-Kalamazoo Extension, 383-8830.

Primary duty is helping out with the "Ask the Master Gardener" portion of the booth.

For more information on the festival, go to www.pawpawwineandharvestfestival.com

Thanks for your help. We look forward to seeing you at the festival.

Kristine Stover
kjstover@aol.com

FALL VOLUNTEER OPPORTUNITIES

The Kalamazoo Conservation District needs help on October 15-18 during their Fall sales and distribution of seedlings. Call Marion Hill at (269) 327-1258 for more details and schedule.

The Gardenettes Garden Club is scheduling

speakers for 2003. They would like someone to speak on the topics of "Continuous Bloom in Your Garden" or "New Flower Varieties for 2003" for their February or March meetings. Call Anne Lauer at (269) 375-1712 for more information.

Kalamazoo County Recycling Dept. is holding a compost bill sale and demonstration at the Bank Street Farmers Market on October 5, 8 am to 1 pm and would like help from Master Gardeners. Call Steve Leuty at (269) 384-8110 for more information.

Loy Norrix High School needs help Sept. - Nov. planting a garden in their courtyard. Call Sally Ghilarducci at (616) 337-0220, Ext. 2120 for more information. (Master Gardeners must have completed their VSP to do this project.)

Kalamazoo Community Mental Health Services on Gull Rd. needs help to plan and plant a garden for elderly patients. Call David Anderson at (269) 553-8038 for more information.

Bronson Park cleanup for Fall. Sept. 28, 8:00 am. Contact Don Weaver at 328-0185 for more details.

Emerald Ash Borer Alert!

On July 16, 2002, Michigan and federal officials announced the discovery and identification of a new exotic pest from Asia Emerald Ash Borer in five Southeast Michigan counties that affects ash trees.

In response, state agriculture officials have issued a quarantine on all ash trees and timber products in the affected counties to help prevent and control the spread of this pest. Under this quarantine, ash trees, branches, logs, and firewood may not be moved outside the affected area unless certified for movement by the Michigan Department of Agriculture (MDA).

MSU Extension agent David Roberts first found the beetle in May. It took quite a while to actually identify the pest.

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Michigan State University, U.S. Department of Agriculture and counties cooperating.
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The emerald ash borer adult is a dark metallic green color and is 1/8 inch in length and 1/16 inch wide. The larvae are creamy white in color and are found under the bark. The adult beetles typically make a D-shaped exit hole when they emerge.

Usually their presence will go undetected until the trees show symptoms of being infested. Typically, the upper third of the tree will die back first, followed by the rest the next year. The following year, there are a large number of shoots or sprouts arising from below the dead portions of the trunk.

The Emerald Ash Borer Task Force is made up of individuals from MDA, MDNR, MSU, Michigan Technological University, USDA APHIS and Forest Service. This task force is investigating ways to slow the spread of this exotic pest throughout Michigan and the rest of the United States.

Please keep in mind that there are many diseases and other factors that cause ash decline and death.

Homeowners outside the 5 county-quarantined areas are urged to be on the lookout for these new exotic pests.

Report any signs of dying ash trees to the local MDA or MSU Extension office (MSU-Kalamazoo Extension office phone, 269-383-8830) or call the states toll free Emerald Ash Borer hotline at 866-325-0023.

More information can be found by visiting the MDA website at www.michigan.gov/mda and using the key word ash borer.

Black Locust Leaf Miner

If you have driven along I-94 or U.S.-131 lately, you may have noticed the amount of brown trees along the way.

Many times, the browning of the leaves is blamed on Japanese beetles. The browning that you see is actually caused by an insect called the Black Locust Leaf Miner.

Don't fret, the trees will be all right, in fact they have suffered this amount of damage for the last 5-6 years.

The larvae of this insect feed as a leaf miner. When it emerges as an adult, it feeds on the leaves, causing the lace-like feeding pattern that can be seen. Most trees will re-leaf out new growth from now until the first frost.

The leaf miners overwinter in leaf debris below the tree. Raking up the leaves in the fall reduces the infestation for next year. Insecticides can be used for small "prized" specimen trees. Otherwise, it is mostly cosmetic.

Trees along I-94 and U.S. 131 are used to the adverse conditions that exist: dry soil, salt, wind, bad soil, little water, heat, etc.

Beech bark disease

As if gypsy moth and pine shoot beetle were not enough, we found another exotic forest pest problem just a few weeks ago. Beech bark disease is caused by the interaction of an exotic scale insect (*Cryptococcus*

fagisuga) with a fungal pathogen called *Nectria*.

The *Nectria* pathogen is not uncommon -- it causes target-shaped cankers that you often see on black walnut, maples and other hardwoods. But it is not usually devastating to beech trees until you get this scale involved.

The beech bark scale was introduced into Nova Scotia about 1890 and has since moved through most of eastern Canada, the northeastern U.S., Pennsylvania and down through Tennessee. It was just a matter of time before it got to Michigan. Areas of Ontario are infested and it has been reported in Ohio.

The beech bark scale attaches itself to the stem and branches of the tree and feeds on sap. It secretes white, cottony material as it feeds. When a tree is heavily infested, the bark will be totally covered with the white cottony scales. The feeding by the scales will reduce the vigor of the trees, but the main problem is that the wounds created by the scales allow the *Nectria* pathogen to enter the tree. The *Nectria* pathogen will eventually kill the tree, or more commonly, branches or the whole tree breaks off, right at a canker.

Over the long-term, the beech bark scale and pathogen is likely to kill many of the large beeches in Michigan. This will probably take years, but given what has happened in the northeast, it appears to be inevitable.

There are trees that are resistant to beech bark disease, but one study suggested that less than 1 percent of the beech will demonstrate resistance. Beech regeneration and root sprouts will be able to grow for some time, but they will also eventually become infested with the scale and attacked by the pathogen. The immature stages of the scale can be windblown for long distances, so we can assume it will continue to spread through the state. There are ladybird beetle predators, but they cannot control heavy infestations.

The infestation that we know about is in Ludington State Park in Mason County and rather ironically, appears to be centered in the Beechwood Campground. The infestation has probably been there for a number of years and there is a fairly extensive area affected. This population was brought to our attention by some sharp-eyed personnel from the Michigan Department of Agriculture (MDA) a few weeks ago. Forest entomologists from MSU, the MI Department of Natural Resources and officials from MDA visited the site, and we received the official confirmation of the identity of scale insect just recently. Representatives from MSU, the DNR, MDA and the USDA Forest Service will be putting together a plan to determine the extent of this infestation and whether any management action is appropriate.

People who visit the campground or other forested areas in the vicinity should be discouraged from transporting firewood out of the area -- especially beech firewood, dead branches, etc. Moving infested wood will increase the rate of spread of beech bark disease.

There are some options for treating high-value

Please see Home Office, Page 6

LEFTOVER PESTICIDES NEED LOCKED STORAGE

Lawn and garden pesticides should always be stored under lock and key, but winter storage poses extra storage problems.

Pesticides need to be stored in a cool, well ventilated area free of excess moisture and extremes of heat and cold — dry formulations need to be kept dry and liquids prevented from freezing or getting too hot.

Follow these tips on pesticide storage:

- Always store pesticides in a lockable storage area and keep it locked to keep hazardous materials away from children, pets, wildlife and irresponsible adults.
- Never store pesticides with or near food, feed, medicines or cleaning supplies.
- Always keep pesticides in their original containers. Labels offer valuable information on use, storage and first aid. If the original label isn't readable, either dispose of the product at a Clean Sweep hazardous waste collection site or request a replacement label where you bought the material.
- Store herbicides (weedkillers) such as 2,4-D separate from insecticides and other products. They may absorb vapors from the herbicide that could later injure sensitive plants.
- Store sprayers and measuring equipment with pesticides, but keep protective gear and clothing elsewhere so it doesn't become contaminated if a spill or leak occurs.
- Store liquid formulations below granules and powders and on shallow pans or trays that would contain any spills. Make sure lids are screwed on tight and dry formulations are enclosed in plastic bags to keep them dry.

To avoid having to store leftover pesticides, try to buy only what you can use up in a typical growing season. No leftovers means no disposal or storage problems.

FALL A GOOD TIME TO PAMPER LAWN

Whether you watered your lawn during the summer's dry weather or let it go dormant, fall is a good time to give it a little TLC. In many ways, fall is the most important time of the year for lawn maintenance. Fall rains and cool temperatures are ideal for growth.

If you fertilize only once a year, now is the time. It encourages grass plants to grow and spread, thickening the turf and making it hard for weeds to get a foothold. The best defense against weeds is a thick, vigorous turf.

For fall fertilization use a mixture of quick-release and slow-release nitrogen. The plants will take

up the immediately available nitrogen now and the slow-release nitrogen will be available next spring when plants resume growth.

Vigorous fall growth can fill in small open areas in the turf. If extensive areas need to be reestablished, the first half of September is an ideal time to seed or reseed a lawn, and sodding can be done well into October.

Newly seeded and sodded lawns need frequent watering so be prepared to irrigate if rain is scarce.

Fall Webworms Make Ugly Webs But Do Little Damage To Trees

The silken webs of fall webworms start appearing on roadside trees and shrubs usually in August. Though large numbers of webworms can totally strip the leaves, the damage is rarely more serious than cosmetic. Less than 50 percent defoliation after mid-August won't hurt the trees.

By this time in the growing season, the leaves are near the end of their career as food factories. The leaves will soon fall anyway, so losing them a little early does little harm to the plant.

Early-season defoliation by pests such as the gypsy moth is more serious because trees have to tap their food reserves to produce new leaves. Repeated early-season defoliation can weaken trees and make them more vulnerable to other insect pests, diseases and environmental stresses.

Fall webworms are small (1 inch long), pale-colored, hair caterpillars. They feed in groups within the webs they build. Webs begin on branch tips. As the caterpillars feed and grow, they enlarge the web, which becomes littered with excrement, molted skins and bits of leaves. If caterpillars are numerous, the web may totally encase small trees or shrubs.

Though they feed at opposite ends of the growing season, fall webworms are often confused with eastern tent caterpillars, which feed in the spring in silken tents built in the crotches of wild cherry, crabapple and other trees.

After fall webworms complete their development, they spin silken cocoons under bark or in ground litter. They'll emerge as adult moths next July, when they'll mate and lay eggs to start the cycle again.

When worms and webs are small, they can easily be removed from landscape trees by hand. Spraying with *Bacillus thuringiensis kurstaki*, a bacterial disease of caterpillars formulated as a pesticide, is also an option. It affects only caterpillars, so it won't harm beneficial insects that help control caterpillars and other insect pests. It will also not harm birds and other wildlife, pets or humans, even if it's used on edible fruits right before harvest.

Home Office

ornamental beech trees if they become infested with the scale. Information from northeastern states indicates that injecting an imidacloprid insecticide (e.g., Merit) into the tree with a wedgel or Maujet device should be effective. Of course, this will probably need to be repeated — maybe not every year or perhaps every other year. Horticultural oils or other insecticide products may also be effective.

We will be working with the DNR and MDA to put together some educational materials for foresters, Natural Resources Conservation personnel, landscapers and so forth. We will also continue to provide information in this newsletter, as it becomes available.

In the meantime, there are two good web sites you can access for more information or photos of beech bark disease:

<http://willow.ncfes.umn.edu/fidl-beech/fidl-beech.htm>

<http://webriver.com/tneppc/symposium/houston.htm>

Save Annuals From Frost To Grow As Houseplants

Fall means that killing frost will soon put an end to the flowering annuals you have enjoyed all summer — unless you save some of them to grow indoors this winter.

The most commonly overwintered annuals are geraniums, coleus, impatiens and fibrous-rooted begonias, and the key to enjoying indoor flowers is light. Too little light will result in long, straggly stems and few, if any, flowers. Leaves will be few, also, and widely spaced on the stems.

Because Michigan winters are not exactly famous for lots of bright, sunny days, growing these plants indoors usually means growing them under fluorescent tubes.

There are two ways to approach saving annuals to grow indoors: starting new plants from cuttings and digging up and potting whole plants. Whole plants will need larger containers and more potting soil, but they may bloom sooner.

To save whole plants, select healthy, growing plants, cut the tops back by half, and then dig them up with as much of the root systems as you can and pot each plant in a container big enough to hold all the roots comfortably. Remove as much garden soil from the roots as you can without seriously damaging the roots and use a commercially prepared houseplant potting mix in the pots. Garden soil will not drain as well and may contain weed seeds, insects, disease organisms and other pests.

Cutting the plants tops back makes them easier to handle and brings the top growth into better balance with the reduced root system.

Set each plant into its pot so you can fill in with potting mix to the depth at which it was growing in the

garden and still have room in the pot to add water without danger of overflow. Water to settle the growing medium and add more potting mix as needed. Place in a sunny window or under a fluorescent light, water

Please see Save Annuals, Page 7



Attention, Master Gardeners!

We're always looking for interesting items for the *COMMUNICATOR*, so let us know what you're up to.

The copy deadline for the next issue is November 15, 2002. Call or stop in the office by that date with news of interest to your fellow gardeners that you'd like to see included in the December newsletter.

Sincerely,

Emelee Reifschneider
Master Gardener Coordinator

Ann Nieuwenhuis
County Extension Director

Save Annuals

whenever the soil feels dry and fertilize once a month with a houseplant fertilizer low in nitrogen and high in phosphorus and potassium. Too much nitrogen will promote spindly growth and discourage flowering.

Plants brought inside from outdoors may contain insects or disease organisms so it's a good idea to keep them separate from other indoor plants for at least a few weeks to keep any problems that develop from spreading to other plants.

To grow new plants from cuttings, begin with 3- to 4-inch tip cuttings from the tops of plants. Cut with a sharp knife to avoid mashing or tearing the stems. Remove the leaves on the bottom third of half of each stem. Then insert the cut end into damp perlite, vermiculite, or sand. You may use a rooting hormone, but it isn't necessary.

Place the container with the cuttings out of direct sunlight and water as needed to keep the rooting me-

dium moist. It should take about six weeks for them to develop roots 1/2 to 1 inch long. Then you can transplant them into 4-inch pots of houseplant potting mix and move them to a brightly lighted spot — either a sunny window, where they'll need frequent turning to keep them from growing lopsided, or under artificial light.

Both whole plants and those grown from cuttings will benefit from pinching. Removing the growing tips regularly will encourage plants to branch rather than straggle.

Plants are more likely to grow compact and bushy and flower indoors if you grow them under fluorescent tubes rather than natural light. A mixture of cool-white and warm-white bulbs is recommended, but all cool-white bulbs will be satisfactory. To simplify the lighting, put the lights on a timer set so they receive 12 to 16 hours of light a day.

In the spring, wait until the danger of frost is past and then cut plants back to about one-third of their height and transplant outdoors.

This September, 2002, Continuing Education Test is one of a series of CE tests presented by the Communicator. Each test, when completed and passed, will provide one hour of MSU-sponsored horticultural training credit. A passing grade is 80% correct. Please submit your test to: Attn: Master Gardener Program MSU Extension -Kalamazoo County, 201 W. Kalamazoo Ave., Room 302 Kalamazoo, MI 49007. This quiz can be used by Master Gardeners who took the Master Gardener Class before 2001.

1. What is going on with the trees along US-131 and along I-94?
 - a. True
 - b. False
2. A caller on the hotline calls in and says that they have small brown patches of closely clipped grass. The brown grass is not easily pulled up. There worms present that are graying brown to greenish with four parallel rows of dark spots. What is it?
 - a. Grubs
 - b. Chinch bugs
 - c. Sod webworm
 - d. Cecropia moth larvae
3. What is *Strelitzia reginae*?
 - a. Varigated vinca
 - b. Croton
 - c. Bird-of-paradise
 - d. White ash tree
4. What causes red spots on apple?
 - a. thrip
 - b. spider mites
 - c. San Jose scale
 - d. anthracnose
5. True or false. Penstemon or Bearded tongue grow best in cool weather.
 - a. True
 - b. False
6. True or false. Nitrogen, Phosphorous and Potassium are mobile in plants.
 - a. True
 - b. False
7. Hotline question: "I have a black-eyed-Susan vine that is doing well, except for some of the leaves now have a yellow cast to them. I see no visible signs of insects, although I can't see very well. I think there is something under the leaves. The leaves are not sticky and the leaves are not distorted. What is wrong?
 - a. Nutrient disorder
 - b. spider mites
 - c. scald from too much sun.
 - d. fertilizer burn
8. True or false. You must complete your hours for recertification by September 30th and report them into the office by December 1st.
 - a. True
 - b. False
9. True or false. Mountain ash can be affected by fire blight
 - a. True
 - b. False
10. "On my white ash this year, I had a problem with this orange powdery substance. Some of the leaves were distorted as well." What was this hotline caller's tree problem?
 - a. Powdery mildew
 - b. Leaf spots
 - c. Gall
 - d. Rust