



MASTER GARDENER Communicator

March 2003

MICHIGAN STATE
UNIVERSITY
EXTENSION
KALAMAZOO
COUNTY

2

Bill's Bit

3

From the Home Office

4

Plant Onions Early

Dandelion Control Efforts
Can Endanger Honey Bees

5

May is Morel Month in
Michigan

Frost Tolerance Determines
Planting Time

6

Developing New Flower
Varieties Takes Time
and Patience

8

Got the Gardening Itch?

9

Continuing Education Quiz

Garden Records — An Important Tool

Records of what plants were in last year's garden and their location, which plants did well, the problems you may have had and the solutions you tried can all be invaluable as you plan this year's garden.

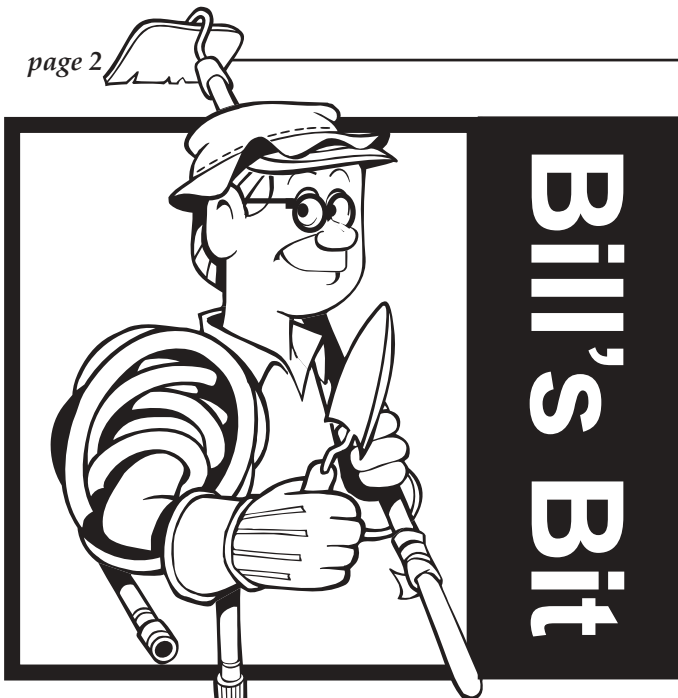
How can this information help? Notes on how much seed you planted and whether it was enough will help when it comes time to order seed and plants. Your records can serve as a reminder to plant more "early" tomatoes and less zucchini. Maybe you will want to plant frequent, smaller batches of beans to spread out the harvest, or concentrate on one or two larger plantings to provide produce for freezing or canning.

Information on the location of plants in your garden is useful, also. Moving crops around, so closely related plants don't follow one another in the same spot, prevents the carry over of some insects and diseases that can persist in the soil from year to year.

Garden records can be as simple or as elaborate as you wish. It is suggested that you start with a sketch of your garden, showing the location of the plants and what varieties are planted. You can make note of how well your plants produced, as well as a bit about problems and solutions, or approaches that didn't work. Keeping track of the performance of the leftover seed will tell you whether it is worth it to buy larger quantities and store the leftovers, or buy just what you need each year. You may want to include weather conditions, or even notes on plant varieties and gardening techniques that you would like to try in the future.

Keeping a garden record doesn't have to be a daily chore. Making dated notes in a spiral notebook or marking them on a calendar will keep all the information together. Storing your record with your leftover seeds may make it easier to find when ordering next year's seeds.

Maintaining your garden records will help you build on last year's successes rather than repeat last year's mistakes. Over time, the notes you make can become an important gardening tool. They can be a storehouse of valuable gardening wisdom gained the hard way — through experience.



Well, Spring is just around the corner and it's time to start seriously thinking about whether to enlarge last year's garden for this year's crops.

(Whoa, wait a minute!!! What I am I saying, 'Spring is around the corner.' It's not even the middle of March yet! It wasn't all that long ago we were at single-digit high temperatures. It's time to shovel the driveway!)

Now I don't claim to be a guru of vegetable gardening, but there are a few things I have observed about my garden. I'm sure if you think about it, there are a few things your "Spring Fever" crazed mind might have forgotten about last year's garden too. Oh I know — you're saying, "I've got you fooled, Bill. I have the planner from last year's garden that even includes rain fall and fertilizer dates."

Think again, my gardening pal, think again. I am speaking specifically about that time that comes about three days after your seed order has arrived. That mind-fogging time when your brain says the garden is really dry enough to roto-till. When little buzzers are going off inside your head because your boots got sucked off fifteen feet back and clay is oozing between your toes. Surely you remember, don't you?

Ah yes.

I know it's not fair to make you go cold-turkey like this, but this is what Bill's Bit is all about — knock some common sense into that holier-than-thou Master Gardener attitude you have. Admit it, I am a Spring Fever junkie. Come on — let's say it together — I AM A SPRING FEVER JUNKIE. Now don't you feel better? Let's think gingerly now — what actually happened last Spring?

If you are one of those people who likes to get seeds in the ground at the earliest possible date, don't use the guide on the back of the seed packet or the table in the back of some gardening book published nationally. First of all, check the soil type that you have and determine its water hold-

ing capability. (This means going out and squeezing a handful from the top two inches of soil.)

Your planner from last year, if it really shows rain dates and the amount of water you irrigated, will give you some idea of how quickly your soil dries out at summer time temperatures. Spring solar heating is less penetrating and air temperatures are usually lower so high soil moisture can wipe out seeds. Mounded rows might be a good way to combat high moisture content and increase soil temperature.

Secondly, rely on Bulletin No. E-760a, Variety Recommendations for Michigan Gardens, as a more accurate guide for the last freeze/frost date in Spring. It's more reliable because it maps the state by county and takes into account regional peculiarities.

Next, critically think about the micro-climate of your garden. If your garden is protected from westerly winds, on the bottom of an easterly facing hill and has trees along its southern border; chances are you might have damaging frost into late June. (Personally, I'd give up on gardening and try my hand at raising homing pigeons!)

Finally, if you think this column has nothing to do with you, I have a sure-fire way to get you (or your spouse) to avoid being a Spring Fever Junkie next year. This fall, instead of removing all your old corn stalks after harvest, do this. Leave two or three rows standing, but trim off all the leaves and let them winter over. In the spring, long before it is time to roto-till, hand plant your peas right at the base of each dead stalk. The peas will grow right up the stalk and after your crop is harvested roto-till everything under and plant a late-season crop.

It may not keep you from avoiding the Fever but at least there won't be a dirty ring in your bathtub.

Indoor Amaryllises Do Rebloom!



This 'Apple Blossom' amaryllis was originally purchased in December 2000. After three annual dry cycles it made a grand appearance on February 19, 2003.

FROM THE HOME OFFICE

It's Time for the HOTLINE!

The Master Gardener Hotline will be operational starting Monday, April 28. We have new hours this year in the hopes that it will not only help all you Master Gardeners fit volunteer time into your schedules, but also to make it easier to return calls to the callers.

The HOTLINE will be in operation on the following days and hours:

Monday 10 A.M. - 2:00 P.M. and also 5-8 P.M.
 Tuesday 5-8 P.M.
 Wednesday 10 A.M.-2 P.M.
 Thursday 5-8 P.M.
 Friday 12-3 P.M.

* Look for the Hotline Training dates to be announced on a postcard in March. Sign-up will occur after these hotline training dates.

One thing I would like to touch on at this time that is VERY IMPORTANT:

Accuracy and Validity of the information given to callers is of utmost importance! We must keep in mind that all of the information provided to callers be supported by researched information from MSU. Be sure you research your answers before giving out advice to the caller.

- Giving Aunt Millie's favorite pest remedy is not acceptable. There are many resources available in the office to help you supply answers to callers' questions: Master Gardener Manual, "Green Tips" from MSU, "Problem Solvers" in the files in the Master Gardener office.

- Also, if you are researching information in any other publication, you MAY NOT photocopy pages/pictures and mail them to callers. Most of these books are copyrighted. You MAY however, paraphrase the information and write a note to send to them or have the secretary type it in a letter to send.

- Recommending commercial products by label name IS NOT allowed. MSU does not promote any particular commercial product. If there is a chemical or nutrient that is the effective ingredient for treatment, you may give them that information and advise that they look for a product that contains that ingredient. Again, IF that is the recommended treatment by MSU.

Many of you have years of experience and knowledge and are always of great help to our callers. Let's keep these parameters in mind so our advice is always supported by MSU research.

VOLUNTEER RECOGNITION BANQUET

If you are currently certified, you have probably already received your invitation to the Master Gardener Volunteer Recognition Banquet. It will be held Wednesday, March 19, at The Birches beginning with appetizers and "chat" time at 6:00 P.M.

The Volunteer Recognition Banquet is when MSU Extension recognizes the Master Gardeners who have attained their certification or re-certification during the previous reporting year. Certificates will be given out at this time as well as Special Awards for those who have reached special milestones by volunteering 250, 500 and 1,000 hours over their lifetime as certified Master Gardeners. (Yes, we have a 1,000 hour honoree this year!)

please see Home Office, page 7

Mary McLellan

State Master Gardener Coordinator
 240 Plant and Soil Science Building
 Michigan State University
 East Lansing, MI 48824
 (517) 353-3774

Emelee Reifschneider

Master Gardener Coordinator
 302 County Administration Building
 201 W. Kalamazoo Avenue
 Kalamazoo, MI 49007
 (269) 383-8830
 e-mail: reifsche@msue.msu.edu

For Your Information

Bill Fritsch

COMMUNICATOR Editor
 925 Boswell Lane
 Kalamazoo, MI 49006
 (269) 375-5067

Kellogg Biological Station
 3700 E. Gull Lake Drive
 Hickory Corners, MI 49060
 (269) 671-2412

Brook Lodge

6535 N. 42nd Street
 Augusta, MI 49012
 (269) 731-2200

Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status, or family status.
 Michigan State University,
 U.S. Department of Agriculture and counties cooperating.
 MSU is an affirmative-action equal opportunity institution.

Plant Onions Early, Enjoy Them Often

When spring is threatening and the gardening bug bites, plant onions. They grow best in cool weather and can stand frost, so they're among the earliest crops to go into the garden. All onions aren't created equal so "know your onions" is good advice at planting time.

The three basic types of onions are scallions or bunching onions (picked before they develop bulbs), yellow or white storage varieties, and large sweet onions. The sweet types, such as sweet Spanish and Bermuda, are good for use in salads and on hamburgers, as well as in onion rings. The white and yellow globe types tend to be hotter and are most often used in cooking. Green onions can be eaten as is or used in salads or stir-fried dishes and other cooked food where a milder onion flavor is desired.

Other members of the onion family can also be grown in the home garden.

Leeks, grown from seeds or transplants, have a mild, delicate flavor that lends itself to use in soups and stews. The edible part is the long, white root. Because leeks need a long growing season, they are usually grown from transplants rather than seeds. Leek transplants are planted into furrow 4 to 6 inches deep and 2 to 3 inches apart. As the plants grow, fill the furrow gradually or hill up soil around the plants to increase the white area of the roots.

Garlic is grown from the cloves that make up the garlic bulb. Harvest when the tops dry and fall over.

Shallots are milder flavored than onions and are grown from cloves like garlic. They can mature like dry onions or be harvested early and used like green onions. Plant single cloves of garlic and shallots 1 1/2 inches deep and 3 inches apart with 12 inches between rows.

Chives are perennial plants that produce attractive purple flowers on erect stalks. Unlike the other onion family crops, which are grown for their underground bulbs, chives are grown for their leaves. They are grown from seeds or transplants. Sprinkle seeds of chives in rows 12 inches apart, or in a pot. Space transplants 12 inches apart.

For dry onions, plant sets or transplants 1 to 2 inches deep and 2 inches apart in rows 12 to 18 inches apart. Sow seeds 1/2 inch deep and thin to 2 to 3 inches between plants, using the thinned plants like green onions.

Scallions or bunching onions can be planted about 1 inch apart. Like dry onions, they can be grown from seed, sets (little bulbs produced the previous year from seed) or transplants.

Onion family crops are generally easy to grow. The keys to success are planting early in well drained soil, controlling weeds, and watering during dry weather, especially when bulbs are forming. Weed control is important because onions and their relatives can not compete with weeds and soon quit growing if weeds are crowding them. Onion family crops grow best in well drained soil. Heavy clay soils can be improved by mixing in compost, well rotted manure or other organic material.

To harvest onions, garlic and shallots, let plants mature until the tops dry and fall over. Then pull the bulbs and dry them thoroughly in a warm, dry spot before storing. Storage varieties of yellow globe onions, if properly dried and stored near 32 degrees F, should last all winter. White onions generally do not keep as well as yellow or red varieties. Garlic, shallots, leeks, green onions and sweet onions are much shorter-lived in storage and should be used within a few weeks. An alternative with any members of the onion family is to chop and freeze them in plastic bags.



Dandelion Control Efforts Can Endanger Honey Bees

A yellow carpet of dandelion flowers where your lawn used to be is a good sign of a dandelion problem out of control. The best time to do something about it was last fall, when dandelion seeds were germinating. Spring herbicide treatments tend to be less effective, especially if you let the plants flower and go to seed. There is a certain satisfaction in watching the dandelions curl up and die, however, so many homeowners apply herbicides in spring.

please see [Honey Bees](#), page 9

May is Morel Month in Michigan

In May, these spongy fungi make their brief, annual appearance, luring morel stalkers out for a springtime tromp in the woods and fields in search of *Morchella angusticeps*, *esculenta*, *deliciosa* and *crassipes*. On this quest, mushroom hunters will drive the length or breadth of Michigan, tolerate bugs and aching feet, slog through dripping forests, slither up and down the sides of ravines, and rip through brambles, sustained only by mouthwatering visions of morels with their next menu.

Though successful morel hunters tend to give vague directions about exactly where they find their treasure, they will frequently share their formula for finding them. Be prepared to deal with suggestions like, "Look first for a stand of aspen," or "in young, second-growth hardwoods," or "in a stand of ash trees." The most challenging hints just might be these, "Wherever bracken fern grows," and "near spruce stumps." In truth, morels are where you find them, and that may be in suburban backyards, open farmland or deep woods.

Like other mushrooms, morels are plants that contain no chlorophyll. They extract the nutrients they need from decaying organic matter in the soil. The part we gather is the fruiting body, the part that contains the spores to produce the next generation. Most of the plant is underground.

Botanists at Michigan State University suggest that the first step in collecting morels is learning to identify them positively so there is no chance of mistaking a poisonous mushroom for these highly edible ones.

True morel mushrooms are most commonly found in May; rarely in late April or early June. They vary in size from 2 to 6 inches and in color from creamy tan to shades of brown or black. What distinguishes morels from all other mushrooms is their structure. All true morels have hollow, more or less cone-shaped heads connected at the base of the hollow neck. There is no break between the head and the neck. All true morels also have pitted or spongelike heads. If a mushroom's cap is attached only at the top of the stalk with the rest hanging free (think of an umbrella), it is not a true morel. Unless you can positively identify it as another edible species, do not collect it and do not eat it.

For best eating, collect only young, firm specimens and carry them home in a shallow, rigid container. Keep morels in an airy, cool place out of the sun. They deteriorate rapidly when placed in plastic bags or exposed to heat or direct sun. At home, split each one lengthwise to confirm its identification and to remove

any dirt or insects inside the hollow stems. Clean and process or cook your mushrooms as soon as possible after you get home.

Whenever you eat wild mushrooms, no matter how sure you are of their identity, save a few fresh specimens in case you become ill. Never eat raw mushrooms, and cook only what you'll need for one meal. Some mushroom species can cause severe gastrointestinal distress when they're left over and reheated.

May is Morel Month in Michigan is a 24 page booklet available through the Cooperative Extension Service. If you want other information on mushrooms there are six other publications available. Call MSU-Extension Kalamazoo County at 383-8830 for details.

Frost Tolerance Determines Planting Time

In southern Michigan, the tradition of putting the garden in on Memorial Day weekend is based on a climatic fact of life: the earlier you plant warm-weather crops, the greater the likelihood that frost will zap them.

Warm-weather crops are those that need warm soil and air temperatures and won't tolerate freezing temperatures or frost. They include tomatoes, peppers, eggplant, snap beans, squash and cucumbers.

Cool-weather crops will grow in cool soil and even tolerate some frost. Peas, onions, lettuce, spinach, the cabbage family crops (broccoli, cabbage, cauliflower, Brussels sprouts, kohlrabi, Chinese cabbage) not only can be planted earlier but ought to be — they don't thrive in summer's heat.

Whether sown as seed or planted as transplants, warm-weather crops simply don't grow if the soil is too cool. Therefore, early-planted tomatoes and peppers may not begin producing any quicker than those planted later, after the soil has warmed, even if they're protected against frost. Snap bean seeds sown in cool, wet soil are more likely to rot than germinate and grow.

One way to get a head start on the season is to warm the soil by covering it with plastic sheeting. Either clear or black plastic will warm the soil, but black plastic will also suppress weeds during the growing season.

If you warm the soil with plastic, plant your tomatoes and peppers through the plastic and then protect the tops against frost. The plants may begin to produce fruits before plants put into the garden after the frost-free date. On a small scale, with bragging rights to the first red tomato at stake, this may be worthwhile, but it is risky — if an unexpected frost strikes, you're out of business. For your main crop, it's probably best to be patient and wait until the likelihood of frost is past before planting.

please see **Planting Time**, page 6

Planting Time

With snap beans, you can fudge a little on the frost-free date because it usually takes seeds seven to 10 days to germinate and emerge from the soil. Making a small first planting about a week before your local frost-free date is okay. If an unusually late frost wipes it out, there's still plenty of time to make several more plantings.

Transplant warm-weather crops on a cloudy day or late in the day so they have a chance to adjust to outdoor conditions before they have to cope with bright sunlight. In very hot or windy weather, some sort of cover that shades plants and protects them against the wind may be a good idea.

If cutworms have ever been a problem, you can make cutworm collars out of strips of cardboard and set them around new transplants to protect them. Cutworms are drab-colored caterpillars that hide in the soil during the day and emerge at night to snip young transplants and seedlings off at or just below the soil surface. You'll rarely see the worms themselves, but their handiwork is hard to mistake. They seem particularly fond of pepper plants, but they can also damage other crops. Preventing damage is easy and definitely cheaper than replacing plants.

To get transplants off to a quick start, fertilize at planting time with a starter fertilizer high in phosphorus, the element most important to root growth. Promoting root growth helps plants recover from the shock of transplanting and resume growing.

Developing New Flower Varieties Takes Time and Patience

On the surface of it, developing a new flower variety doesn't sound all that complicated. A plant breeder spots something new and different — an unusual flower color, a plant with a more compact growth habit, a variation in foliage shape or color. It may be the result of an intentional crossbreeding or something that simply appeared — a mutation.

The plant breeder, recognizing the value of the desirable trait of the new plant, develops a breeding program. She assumes control of its pollination, saving seed and growing more plants and self-pollinating them to reinforce the desired trait. This sorting out of characteristics occurs according to predictable principles.

The next obvious step is to use them to produce plants with certain attributes. Singling out the alternatives usually takes about five generations of plants, or five years. The goal is a line that's 99.999+ percent pure for the established features. It generally takes 7 to 10 years to bring a new variety to market after a novel selection is made.

The odds are against most experimental crosses ever getting that far, however. Lowell Ewart, a Michigan State University plant breeder says, "Maybe one out of a hundred of the crosses that you'll make will

result in something that's better in some way than what's already available. Out of a thousand petunia crosses, for instance, 10 may be worth trying out against currently available varieties. With luck, one or two of those might have some advantages over those currently on the market." So besides taking time and patience, it may even take luck, developing a new variety for the commercial market.

From a hobbyist's aspect, anyone can be a plant breeder. An informal start at plant breeding involves taking the seed from nature's crosses in the garden and planting it to see what comes up. If the parent plants were hybrids, the offspring may be quite variable. The biggest problem is growing out the material from the seed saved to see what the results of the crosses will be. If you are attempting to breed a new variety of African violet under lights, for instance, they could easily take over your whole basement.

Hobby plant breeders who would like to see what the professionals have been up to can view the latest releases and would-be introductions in the All-American Selections and flower seed trial garden at MSU this summer.



Blue Poppy, native to the Himalaya Mountains

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 May 15, 2003. 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 June newsletter.

Sincerely,

Emelee Reifschneider

Emelee Reifschneider
Master Gardener Coordinator

Ann Nieuwenhuis

Ann Nieuwenhuis
County Extension Director

Home Office

We must have your RSVP in the office by Wednesday, March 5, to ensure your reservation with the caterer. The Banquet is FREE to Master Gardeners; there is a \$15 charge for each guest attending with a Master Gardener. We are very excited this year to have many awards to give to Master Gardeners.

We have made arrangements to give a specially designed t-shirt to each Master Gardener who attends the banquet. You will notice on the RSVP card in your invitation, that we need your t-shirt size. We hope to see you there!

SPRING INTO GARDENING CONFERENCE

The MSU Extension Master Gardener program is sponsoring the First Annual "Spring Into Gardening Conference" on Saturday, April 26, at Kalamazoo Valley Community College. We have lined up many speakers from the community and a few of our own Master Gardeners who have interests in specialty topics. The day will be divided into three sessions with five different classes offered in each session.

Reservations and class selection deadline is April 1. Cost of the day's program to Master Gardeners is \$65; non-Master Gardeners \$75; and includes lunch. (Master Gardener Trainees qualify for the \$65 registration fee.)

If you did not receive a brochure about this exciting conference, call the office at 383-8830 and one will be sent to you. Or, you can obtain a class listing and reservation form on the Internet at www.msue.msu.edu/mastergardener/kalamazoo

Kalamazoo and Calhoun County
Master Gardener Associations Present...

*'All you ever wanted to know
about Water Gardening'*

Tuesday, March 11, 2003 7-9 P.M.

Portage Northern High School Auditorium,
Portage, MI

Speaker: Scott Bates, owner of Grass Roots
Nursery, New Boston, MI

Cost: \$10.00 per person payable at the
door.

The 2003 International Master Gardener Conference and Trade Show

Northern Kentucky Convention Center
Rivercenter Boulevard
Covington, Kentucky
<http://www.nkycvb.com/>
June 18-21, 2003

The Greater Cincinnati Master Gardeners are thrilled to invite you to see for yourself this fertile valley and experience the excitement we have planned for you as part of the International Master Gardeners' Conference 2003! The Conference and Gardeners' Market and Trade Show will be held June 18-21 at the Northern Kentucky Convention Center with two beautiful hotels practically right on site and another in the heart of downtown Cincinnati just minutes away.

We have brochures and registration forms in the Kalamazoo Extension office. Call 383-8830 to request a copy or stop in to pick up the information.

MSU Master Gardener Summer Conference

June 23-25, 2003
Michigan State University, East Lansing, MI

Just a reminder that the MG Summer Conference is coming soon. Only certified Master Gardeners are invited to attend. You must be certified by April 1, 2003 to receive an invitation. Detailed information will be mailed from the State Master Gardener office the first week of May. Once you receive your information, you should register early for best class selection.

IMPORTANT INFORMATION:

If you are planning to attend, you may want to make your hotel reservations now. Many waited until after May 1 last year and the Kellogg Hotel (where most of the events are held) filled up fast. Call the Kellogg Hotel and Conference Center at 517-432-4000, ext. 5121. Mention that you are with the Master Gardener Summer Conference to receive a reduced rate.

There are other hotels in the area, but you will have to pay to park at the Kellogg Center and other hotels may not give a reduced rate for attendees of the conference. Also, many of the Master Gardeners who attended last year, have made their reservations already for this year's conference so the Kellogg Hotel will fill up fast.

Got the Gardening Itch? Well Get Started!

It won't be too long before the crocuses start blooming and a light dusting of frost will replace snow. It'll be time to begin planting Michigan produce and vow to seed those seed packages which state "as soon as soil can be worked." This is especially true if you have sandy soil.

Check your soil before planting by squeezing a handful. If it crumbles when you release it, it's dry enough to plant. If you've plowed or tilled your soil last fall, you can get into the garden earlier in the spring. Plus the protection for overwintering insects has been destroyed.

Early crops grow best in well drained soil and full sun. Plan to make small plantings for greens and radishes every ten days and follow the directions on seed packages for spacing and rows. Greens will perform well planted in rows (wide rows help to keep the soil cool and shade out weeds) or in containers. Try leaving a couple of plants to go to seed. If you're lucky you'll find little lettuce plants coming up late in the fall or even next spring.

Lettuce, spinach, and other salad greens are cool weather crops. Greens thrive when the temperature reaches 50° to 60°. During the warmer weather they grow spindly and bolt; however, there are some exceptions. The tastiest and healthiest greens grow quickly. This requires steady moisture and fertile soil.

Try planting greens where last year's compost pile was spread. The best and only spinach crop I grew came from a compost pile spread in the fall and planted into spinach early in the spring.

If you prefer to use a commercial fertilizer, it is best to apply it the day you plant because greens need to grow fast. A standard recommendation is 5-10-10 worked 2 to 3 inches into the soil before planting. Soil pH should be between 6.0 to 6.5. Spinach will be stunted by a pH below 6.0.

Root crops including radishes, beets, carrots, and onions can also be planted early. Maggots become a problem for radishes if they are planted later. Plant radishes every 7-10 days. Seeding radishes with carrots helps with spacing carrots as the radishes are



pulled. Harvest radishes while they are small to avoid mealy, woody, or bitter characteristics.

Beets can be soaked 12 hours prior to planting to help soften the tough seed coat and break dormancy. Onions can be planted from plants, sets, or seed. Sets and transplants are easier to space. Plant seeds 1/2" deep then thin to 2-3 inches apart.

Peas are also a cool weather crop which often perform better if grown on a support. Try saving branches from pruning to stick between a double row of peas for support. When the crop is finished it's easy to pull the sticks up with the peas attached and begin a new compost. Be sure to leave behind the roots of the peas because the white nodules which fix nitrogen are attached. A good companion to peas is cabbage planted between a double row of peas. Peas planted after mid-May usually yield poorly.

If some cool weather plants have been started indoors, begin to harden them off in the cold frame. Be conscious of the extra protection needed on potentially freezing nights. Vegetables which can be transplanted early are members of the cabbage family. Parsnips taste and grow similar to carrots. My family ate the wonderfully sweet ones, planted last spring, fresh from the garden three weeks ago. Leeks too, are transplanted into the garden early. Leeks are frequently placed as they grow by planting the seedlings in a trench about 8 to 10 inches deep. As the plants grow continue to fill soil into the trench around the plants.

Many flower seeds also require the cool, moist spring to proper germination and successful flowering. Some of these include larkspur (*Consolida Ambigua*), California poppy (*Eschscholzia californica*), bachelor button or cornflower (*Centaurea cyanus*), sweet alyssum (*Lobularia maritima*), Bells-of Ireland (*Molucella laevis*), and Love-in-a-mist (*Nigella damascena*).

Temperature and moisture are usually just right in Michigan for planting the seed and transplants mentioned in this article. May this be the year you're growing, harvesting, eating, and sharing from your garden earlier than the neighbors.

Honey Bees

The problem is that the same chemicals that zap dandelions and other broad-leaved weeds may damage foraging honey bees.

Roger Hoopingarner, Extension apiculturist (bee specialist) at Michigan State University, points out that the concentrated flowering of dandelions in May attracts honey bees by the thousands.

“Because the numbers of bees in colonies is at their lowest in spring, beekeepers can least afford large losses then,” he says. “Though herbicides are less likely to damage bees than an application of insecticide, it takes very little effort to avoid even that risk.”

The simplest way to protect bees and other pollinating insects is to mow the lawn before applying the herbicide to remove most of the flow-

ers. Another strategy is to apply lawn chemicals when bees are not flying — either on cool days, with temperatures below 55 ° F, or in the evening, after bees have gone back to their hives for the night.

“Treating the lawn in the evening gives the chemical time to do its job and begin to break down before bees are active again,” he explains.

Why worry about a few bees?

“Though some other insects are also pollinators, honey bees are responsible for pollinating most of Michigan’s fruit crops, as well as seed production in vegetable crops and alfalfa,” Hoopingarner explains. About \$200 million worth of crops in Michigan depend directly on bees. The annual honey harvest adds another \$5 million to their economic value. Some 2,000 beekeepers generate income from bees. All of this makes bees a valuable asset to the state’s agricultural economy and well-being.

This March 2003, 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 2002.

1. What are three improvements that occur after fertilizing woody ornamental plants?
2. What is the most common pest or problem with brambles?
3. What is an effective skunk deodorizer that can be made with household products? (Yes, this answer is in your manual.)
4. What is the most crucial thing when planting garden seeds?
5. True or false? A Hick’s Yew the previous year’s growth should be cut back about one-quarter to one-half to encourage a thick growing plant.
6. What things can be done to minimize diseases and insects when growing perennials other than insecticides and hand removal of problems?
7. If your compost pile has an ammonia smell, what is the problem?
 - a. Too many brown materials
 - b. Pile is too large
 - c. Pile is too small
 - d. Too many green materials
8. When doing a soil sample, how many samplings or soil cores should be taken from an area?
 - a. 5
 - b. 10
 - c. 15
 - d. 20
9. A desirable surface soil in good condition for plant growth contains approximately:
 - a. 50% solid material, 25% water and 25% pore space
 - b. 45% minerals, 25% water, 25% air, 5% organic matter
 - c. 50% solid material and 50% water
 - d. 100% organic matter
10. A person calls the hotline. She is irate about her trees “dying.” You ask her what kind of trees and she says Blue Spruce. You ask her to describe the death. She explains that whole branches are dying out, some on the bottom of the trees and others in the middle to top area of the tree. Briefly describe what is going on and what may be done.