https://fonddulac.extension.wisc.edu/hort/fond-du-lac-county-community-garden/

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WISCONSIN-MADISO

The Garden Path Fall 2020 Newsletter

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"We might think we are nurturing our garden, but of course it's our garden that is really nurturing us." -Jenny Uglow

Patty's Notes

he Fond du Lac County Comm

After doing a recent walk through of the garden, I was happy to see the abundant harvest in gardens well cared for. However, there are a few individuals who did not do a good job of weed control. This makes it difficult for everyone else when the weeds are left to go to seed. Weed control affects everyone in the gardens. The main reason I plant cover crop on the unused areas of the garden is to control weeds, so please do your part. I also see that many have not kept the area on the edge of their garden weeded. This area close to your garden is difficult to mow, so it is your responsibility. When all the weeds go to seed, they spread into all the gardens. Please be a good garden partner, and cut down any of the weeds near and in your garden plots, before they go to seed. I meant to include the article about weeds in the first garden newsletter, but it also applies to fall clean-up. When you eliminate the weeds, next year's garden season will be less weedy and more productive.

This year's garden close date is October 15. While the weather is still favorable, start your final harvest of produce and clean up your garden site. Along with the clean-up of the garden, please take your garbage home with you. Each gardener is responsible for this.

I ran across a pile of cardboard along one plot. If we have to request garbage pick-up at the garden site, the cost of the garden plot rentals will go up.

If you remove the marking stakes, make sure you REMOVE ALL STRING AND TWINE. There is an area for the stakes on the south edge near the shed. All other marking sticks and garden stakes/tomato cages must be taken home.

I have included an article on benefits of cover crops. Our Extension Crops & Soils Educator is promoting this for our garden site, and recommends it would be very beneficial to do this fall.

atty Jercy

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How Do Weeds Get Into Your Garden?

Every gardener needs to manage weeds every year. Insect pests may or may not show up in the garden. Diseases may be devastating during some weather conditions and absent during others. Weeds will always be part of your garden ecosystem.

All soils in Wisconsin contain weed seeds. Weeds spread by the wind, bird deposits, and last year's crops and weeds. They may enter the garden in a load of compost, they could be stuck to the sole of a shoe and tracked in, or they could be in the potting mix of transplants. Weeds also come into the garden from adjacent lawns, fields, or woods. Vining and creeping weeds can grow a small shoot that enters the garden, sends down roots, and flourishes.

Underground stems of creeping grasses and <u>Canada thistle</u> can travel as much as a foot through the soil before emerging in your garden and growing vigorously.

Weeds can invade a very controlled garden, even ones with raised beds, patio containers, or areas covered by plastic mulch.

What harm do weeds do?

- Competition from weeds can reduce yields of the crops you grow in your garden.
- Weeds make it difficult for your garden plants to get enough water, nutrients, and sunlight.
- They can harbor insect pests and impede airflow, creating a favorable environment for plant diseases.

Strategies and tactics

 Make weeding a part of every interaction you have with your garden. Always look for a new flush of weed seedlings or an invasion of plants from other parts of your yard.

- Do not let weeds flower and set seeds. Prevent the number of weeds from increasing by eliminating weeds before they flower.
- Every gardener needs a hoe of some kind. It may be a small hand hoe, a short-handled Asian-style hoe, a tall solid-blade hoe, or a stirrup hoe.
- With your tool, lightly scrape around your plants and in the areas between the rows. This eliminates weed seedlings when they are still too small to pull by hand.
- Do not chop or scrape too deeply with your tool, or you may harm the roots of your vegetable plants.
- It is difficult to keep underground roots and stems from invading the edges of your garden. Most edging materials only extend a few inches into the soil, while many plants spread by underground parts that can be more than a foot deep. Always look for these weeds.
- Almost any kind of mulch can help you battle weeds. **Plastic mulches** that help warm the soil can also keep weeds from emerging.
- If you use plastic mulch, check the holes cut into the mulch for plants, and pull the weed seedlings that may be growing alongside your vegetable plants.

*Gardeners must remove any plastic fabric from garden plots by the middle of October- before garden closing.







Organic weed control

- Corn gluten meal is a naturally derived, preemergent herbicide that contains 10% nitrogen.
- It may or may not control weeds.
- A byproduct of producing ethanol from corn, this substance does not contain the wheat protein to which some people have sensitivities. Instead, it is a complex of unrelated corn proteins named "gluten."
- In <u>research at Iowa State University</u>, corn gluten meal inhibited germination of many weed seeds. Later studies in <u>Oregon</u> found no benefit from using corn gluten meal.
- In a vegetable garden, repeated treatments of corn gluten meal could be more effective against weeds. It is also possible that the corn gluten meal could negatively affect vegetable seed emergence.

*Please remember – no herbcides (weed killers) are allowed in the gardens.

Source: <u>https://extension.umn.edu/how/planting-and-growing-guides</u>

Safe Preserving Tips in the Time of COVID-19

Published on September 14, 2020 by <u>BARBARA H</u> <u>INGHAM</u>, Professor, Food Science Extension Specialist Whether you are new to canning, returning to canning because of the pandemic, or have always canned, there are certain tips that will help ensure that your time and efforts



lead to safe, healthy food for your family. Use recipes that are up to date. Some canning recommendations have changed dramatically over the last 20 years. While capturing a family-favorite memory might be your goal, recipes from cookbooks and the internet are generally not tested to ensure safety. Especially if you are using recipes that date before 2015, it's a good idea to compare your home recipe with research-tested recipes, choosing a tested recipe to ensure your efforts are safe and delicious. The good news is that all research-tested recipes are available for free from the <u>National Center for Home Food Preservation</u> (<u>https://nchfp.uga.edu/</u>). Recipes for canning vegetables or tomatoes, fruits, meats, or even fermenting sauerkraut, or making genuine crock pickles are all available.

Start with equipment in good working order. This canning season, some equipment has been in short supply. Some canners are hard to find and jars and lids have been scarce. The right equipment is still important! Remember that some pots can double as a boiling water canner. A boiling water canner should have a flat bottom and a tight-fitting lid. An alternative to a boiling water canner for acidic fruit or pickles is an atmospheric steam canner. A steam canner uses non -pressurized steam to safely can high-acid foods. If you are canning low-acid foods like vegetables or meats, you must use a pressure canner. A pressure canner will have either a dial-gauge or a weighted gauge. A tested recipe will give instructions for using a pressure canner to safely preserve food. A multi-cooker such as an Instapot is not safe for home canning. Review information on safely using a boiling water canner, an atmospheric steam canner, or a pressure canner before you begin.

Assemble jars and other items. Extension recommends standard home canning jars (Mason-style jars) for canning. If you choose to use other types of jars, they must fit a two-piece metal lid and band. There is greater risk of jar breakage and possible seal failure with non-standard canning jars. Check all jars to make sure they are not chipped or cracked. Only two-piece lids are recommended for home canning. For best



performance, lids should be purchased new each year. Under no circumstances should you reuse canning lids.

A jar that does not seal effectively may spoil or the contents may become unsafe. Individuals who have been canning for years are often surprised to find that lids no longer need to be heated before use, and they should never be boiled before using. Both jars and lids should be washed in clean, soapy water and rinsed before use. Jars should be pre-heated before filling. Sort through screw bands to make sure they are not rusted before applying. Other items that come in handy for home canning include jar fillers, tongs, and lid wands.

Home canned items should be stored in a cool, dry location. After cooling and jars have sealed, remove screw bands and gently wash jars and bands in soapy water, rinse, and dry. Washing will remove any food residues that may support mold growth on



storage. Store canned items with the screw bands removed; this makes it easier to see when jars become unsealed. Home canned food is best consumed within one year. Food preserved using a research-tested recipe should retain high quality for up to three years if stored in a cool location.

What if you can't find supplies? Some canning supplies are in short supply. Consumers have had trouble finding jars and lids, and canners have even been sold out. For safety sake, consider these options:

Freezing. Some items that would normally be canned may be successfully frozen, this is particularly true of salsas and tomato products. Prepare as directed, package in freezer containers, and freeze. While vegetables may be prepared differently for canning and freezing, homefrozen vegetables are a delicious addition to a family meal. Meat is another item that freezes well. Instructions for preparing foods for the freezer can be found on the <u>National Center</u> website (<u>https://</u> <u>nchfp.uga.edu/how/freeze.html</u>) or the <u>Wisconsin safe</u> <u>preserving website</u> (<u>https://fyi.extension.wisc.edu/</u> <u>safefood/recipes/</u>). The Wisconsin bulletin *Homemade Pickles and Relishes* has information on making delicious freezer pickles!

Refrigeration: Holding foods in the refrigerator will extend the shelf life for several weeks, allows flexibility in the containers that you use, and may be an option for items that can not be safely canned. Prepare your familyfavorite recipe, whether a salsa, pickle or soup, and store in the refrigerator for up to two weeks; if meat is added, limit store time in the refrigerator to one week. Pickle recipes designed to last a bit longer in the refrigerator can be found in *Homemade Pickles and Relishes*.

Drying. Fruits and vegetables can often be safely dried in an oven or dehydrator at home. Instructions for drying fruits and vegetables at home are available from the <u>National Center</u> website.

The publication Food Storage for Quality and

Safety includes tips on handling and packaging the foods that you preserve. Overall, be sure to make food-safe choices, so your pantry and freezer supplies your family with safe and healthy foods year round.

Source: <u>https://fyi.extension.wisc.edu/safefood/2020/09/14/</u> safe-preserving-tips-in-the-time-of-covid-19/.

Cover Crops for the Whole Garden

Cover crops are grown to enrich soil, improve its structure, enhance growth of subsequent crops, and reduce erosion by protecting the garden surface from wind and rain. They are planted during intervals in the growing season when traditional garden crops are not present, and they are of particular importance to people interested in invasive gardening - a style of gardening that requires the very rich soil that cover crops can help create.



Cover crops enrich soil by improving its ability to retain nutrients and by contributing organic matter. As cover crops grow, their roots loosen tight or compacted soils, and when these crops are cut and tilled back into soil, they decompose and add nutrients. Cover crops also disrupt disease cycles, suppress weed growth, and provide habitats for beneficial insects.

Why should I use cover crops?

Foot traffic in the garden during tilling, weeding, and harvesting can compact garden soil. Continual use of a garden plot to grow fruits and vegetables can deplete soil nutrients and allow disease and weed



problems to build. Cover crops can also help loosen and revitalize your soil, making it more productive for subsequent crops, and they can reduce the need for pesticides and fertilizer. In addition, cover crops can be very attractive. And many are edible. Devoting space in a home garden to cover crops is a commitment. It will entail some planning and effort, and it can take a portion of the garden out of production for a period of time. There are ways, however, to make use of cover crops and not lose time or space for growing your favorite vegetables. If your garden space is limited, it is best to plant cover crops at the beginning or end of the growing season, thus allowing the full use of your plot for summer vegetables and flowers.

Which cover crops are best for home or community gardens?

There are many types of cover crops. Most are either grasses (such as rye, barley, and oats) or legumes (clover, peas, beans, and vetch.) Legumes are unique in their ability to fix nitrogen in the soil, so this important nutrient can be used by subsequent crops. Other cover crops include buckwheat and radishes. Different cover crops produce different quantities of biomass - that is, different quantities of plant material. Those producing relatively modest amounts - or that can be managed so they produce only modest amounts - are easiest to deal with in a home garden. Too much cover crop plant material can become a problem, when it comes time to cut it, chop it, and cultivate it back into the soil.

Growing Techniques

Commercial vegetable producers use an array of cover crops, but many of these require herbicides or large-scale equipment to manage, and therefore are not recommended for the home garden. Winter rye and hairy vetch are excellent for field scale production, but they can be very hard to cut and hard to till into the soil. We recommend that home gardeners use annual species for which seed is easily available, and species that are easily established and managed, easily incorporated into the soil, and unlikely to create insect, weed, or disease problems for other crops. Here is our short list of good home garden cover crops that meet those requirements: buckwheat, oats, berseem clover, soybeans, and oilseed radish.

Buckwheat is a tender annual broadleaf that is not related to wheat. It germinates readily and grows quickly, making it an ideal crop to smother weeds. It has a fibrous root system which loosens tight soil, making soil friable and easy to work for the next crop. It flowers early and should be cut and tilled into the soil before it produces seed. Mowing seven to ten days after flowers begin to appear will prevent viable seeds from forming. Bees and other pollinators are attracted to buckwheat, as are beneficial insects such as ladybugs and lacewings. However, it also attracts Japanese beetles, a fact that should be considered if you plant species susceptible to Japanese beetle damage, such as raspberries, strawberries, eggplant, and especially



roses. Buckwheat can be planted any

time from late spring to mid-August. It will die with the first frost. Buckwheat performs poorly in heavy soil, or in soil with ph above 7.0. Soil PH can be determined by routine soil testing. For more information on soil testing, contact the Fond du Lac County Extension Office.

Oats is a fast-growing, cool season grass with fibrous roots that hold the soil and add organic matter. Both "feed" and "seed" oats are acceptable as a cover crop, and seed for both is relatively inexpensive. Oats can be planted in the early spring or fall. It is often planted in combination with a legume that can fix nitrogen

Oats can be mowed before the seed has emerged in order to stimulate regrowth while managing existing biomass, while keeping the straw at a manageable level, so that it can be chapped and incorporated back into the soil.

Mowing will kill plants that have already developed a seed head. Oats will survive frequent mowing if a shorter cover is desired. This cover will survive the first few frosts in the fall. Growth should be monitored closely, so it doesn't get out of hand. Oats planted in late summer will produce a large quantity of dry matter, but will be killed by winter and easily tilled into the garden in spring, especially if it is first chopped with a mower.

Berseem clover is a rapid-growing tap-rooted annual legume capable of fixing nitrogen. Most clovers are not recommended for the home garden because they are slow -growing initially, and more difficult to establish than the other crops discussed here, and they are difficult to kill. They are biennial or perennial, and have a high percentage of hard seed which will germinate for years to come. Since berseem clover is an annual, it does not have these problems and works well in home gardens.

Berseem can be mowed before flowering to manage the biomass and to stimulate regrowth of succulent young tissue. Cutting after flowering will kill the plant. Its tissues are higher in nitrogen than the tissues of other recommended species, so its residue will decompose more rapidly, releasing nitrogen into the soil in plantavailable form for the next crop. Berseem clover usually tolerates light frost. Make sure you purchase seed that has been inoculated with the proper *rhizobia bacteria, so that the clover will be enabled to fix nitrogen; or to inoculate it yourself.*

Soybeans are a unique and useful cover crop in the home garden. Not only do they fix nitrogen, but they can provide a tasty, edible crop if the right variety is planted. Edamame soybeans from Japan have become a popular

vegetable in recent years. Often referred to as "edible soybeans" or

"fresh/green soybeans," they may be boiled and salted in the pods and eaten as an appetizer, or shelled and added to salads. Soybeans planted for harvest are normally grown in rows, but they also can be broadcastplanted to form a solid stand. The beans can then be harvested in late summer or early fall.



Plant soybeans after the soil has warmed in late spring to midsummer. If not intended for later harvest, soybeans can be mowed to manage the biomass, although it can be risky. Plants must be cut higher than other species because regrowth is initiated from axial buds. Also, mowing will stress the plant for a variety of reasons, which will slow growth. Soybeans will be killed or severely injured by the first frost. Like clover seed, soybean seed should be inoculated before planting.

Oilseed radish is a recent arrival on the cover crop scene. This radish, commercially available with names such as "tillage" and "groundhog," has been selected for larger roots that penetrate the soil to depths greater than six inches, breaking up compacted layers. Like soybean, this cover can provide a harvestable crop, for its roots are edible. A word of caution: decomposing radishes produce a strong order which some people find objectionable.



Radishes are a cool-season crop and do best when planted after August 1. They grow rapidly in fall and will survive several frosts. The size of the root depends on the seeding rate. Lower rates result in larger roots but less initial cover of the garden surface. As plants become larger, the top girls spreads out, ultimately protecting the soil surface. A common practice among farmers who want very large roots to relieve compaction is to seed another cover crop that will fill the gaps between radish plants and protect the soil surface until the radish tops spread out. See below for a discussion of cover crop mixes.

Selecting which cover crop to use

All species recommended for the home garden will produce cover to protect the soil surface. The choice of cover crop species should made based on answers to the following question.

1. When are you planting?

Time of planting will dictate which covers will perform better. Cool-season species do not grow well in hot conditions; warm-season species do not grow well in school set conditions, especially when nighttime temperatures drop. Also, warm-season species will be killed by the first frost, which means that if they are planted late in the season, they will produce limited soil cover and biomass. In general, warm-season cover crops are planted June through mid-August, cool season species the remainder of the growing season. Mid-September is a practical cutoff date for planting cool-season covers in Wisconsin if appreciable growth is desired.

2. Do you need to replenish nitrogen? Nitrogen is often the essential nutrient most lacking in garden soils. Nitrogen fixation is a biological process in which plants and rhizobia bacteria work together to convert atmospheric nitrogen into plant proteins. Only legumes like clover and soybeans can fix atmospheric nitrogen. This nitrogen is ultimately released to the soil in a plant-available form when the legume decomposes. Legumes are the appropriate choice if you plan to rotate a crop that requires lots of nitrogen, such as potato, sweet corn, tomato, squash, or pumpkin.

3. Is your soil tight or compacted?

Fibrous-rooted covers will relieve tight soils and improved tilth, while tap-rooted species will help break up deeper compaction. Fibrous roots also explore a large soil volume and do a good job of scavenging unused nitrogen.

Once you have answered the questions above, use table 1, the cover crop selection matrix, to help you decide which cover crop to plant.

Planting time	Goal	Best option
In the warm season	to smother weeds and loosen tight soil	plant buckwheat
	to fix nitrogen	plant soybeans
In the cool season	to loosen tight soil	plant oats
	to alleviate deep compaction	plant oilseed radish
	to fix nitrogen	plant berseem clover

Table 1. Cover crop selection matrix

Source: Cover Crops for the Home Garden (A3933-02), Authors: John Henrickson, senior outreach specialist, Center for Integrated Agricultural Systems, CALS, UW-Madison, and Jim Stute, crops and soils educator, Rock County UW-Extension.



Sauerkraut Recipe

Ingredients: Cabbage & Pickling Salt (not iodized) Fully mature, large-headed types weighing 6 to 15 pounds per head with a solid, white interior are the most desirable for kraut. The larger the head, the sweeter it is. This is particularly true later in the fall after a few light frosts. However, smaller heads can be used. The following are among the best varieties (cultivars) to grow for sauerkraut in Wisconsin home gardens: Bravo, Krautman, Sanibel and Wisconsin All-Seasons. All of these are yellows-resistant and will grow to a large size. If you do not want a large-headed variety, grow any yellows-resistant late cabbage (80 to 100 days). While it is traditional to use ordinary green cabbage for making sauerkraut, you may also use red cabbage varieties.

Making Small Amounts - This method is convenient if you make into sauerkraut only a head or two of cabbage at a time. However, making small amounts may result in more spoilage. Use any type of 2-quart standard canning jar. Sterilize the jar, lid and other utensils to be used in packing the kraut by placing in boiling water for 10 minutes.

Remove defective and coarse outer leaves from the cabbage. Rinse heads lightly in cold water to remove dust or visible dirt particles; drain. Cut heads into halves or quarters and core. Slice or shred the cabbage, so that the shred is as long and thin as possible. Shred the cabbage by using a large, sharp knife, special kraut cutter, or food processor and put into a sterilized pan or bowl. A 2-quart jar will hold about 3-1/3pounds of shredded cabbage. To this amount, add 2 tablespoons plus 1 teaspoon canning or pickling salt (not iodized). Thoroughly mix salt into the cabbage. Allow the salted cabbage to stand for 5 to 10 minutes to wilt somewhat and begin to draw out juices. Pack the cabbage firmly into the jar, filling it to

the top. Press down firmly until juice runs out of the cabbage and covers it completely. Put the sterilized lid on the jar just tightly enough to keep out air. Set the jar on a tray or in a pan to collect juice that may leak out during active fermentation. Keep the jar at room temperature (68 to 72 degrees F) until the bubbling stops. This will usually take 2 to 3 weeks. Note: Do not pour the juice that bubbles out back into the jar. When the bubbling stops, check to be sure that there is still enough liquid to cover the kraut. If there is not enough liquid, replace the juice that has bubbled out with a boiling hot, weak brine -2 tablespoons salt per quart of water. Retighten the cover securely, wipe the outside of the jar and store in the refrigerator or a very cool place until you use it up.

For longer storage, heat the kraut and liquid, repack into pint or quart jars. Process in a boiling water canner (212 degrees F) 15 minutes for pints and 20 minutes for quarts. You can also freeze the kraut.

Source: B2087 Make Your Own Sauerkraut, Author: Mary E. Mennes, professor, Food Science, University of Wisconsin-Madison and food management specialist, UW-Extension





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