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# GardenWise

North Carolina Cooperative Extension

# **Crop Rotation: An Important Vegetable Gardening Practice**

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R. Craig Mauney

R. Craig Mauney Extension Agent Horticulture Crop rotation is not a new idea. It has been around since the middle ages. If you are trying to be a green gardener you understand that crop rotation is happening naturally around us all the time. A good vegetable gardener realizes that nature knows best and we follow nature as a guide in our own garden. Crop rotation preserves the health of our land and the people living there.

What is crop rotation? It involves changing the type of plant grown on a particular piece of garden from year to year or from season to season. One particular type of plant will pull a certain group of nutrients up from the soil depending on the needs of that plant. There are two categories of plants that should be planted in succession. These are plants that need nitrogen and those that fix nitrogen in the soil. Nitrogen fixing plants have bacteria that grow on their roots. The nitrogen is left in a form that is easily absorbed by plants nearby. A legume (clover, beans) are nitrogen fixing plants.

Benefits of crop rotation: Crop rotation is not only just good for the soil and plants it also can save you money and some time. You will save money on needing extra fertilizer

and by reducing the population of insects and reducing personal stress over plant loss.

Cover crops and crop rotation: Cover crops are good to consider in the crop rotation. Some plants give and some take away but cover crops are grown specifically to be worked back into the soil at the end of the season to build up the soil. They provide nutrients to the soil, protect the soil from the sun, reduce the amount of weeds, and they can also provide food for beneficial insects. A cover crop example is rye grain. Rye will protect the soil from erosion, smother weeds, and become plant food in the spring when left on the soil or turned under.

Disease and Pests: Preventing the buildup of disease and insects that affect a crop is a major benefit of a cover crop. Many pests that desire a specific crop will continue to increase in your garden if you grow the same crop in the same spot continuously. The rotation of crops actually confuses the pests and will keep the populations smaller. Diseases that target certain plants can be reduced or avoided with rotating crops. Some cover crops can actually assist in killing certain pathogens.

# **Gardening Gift Ideas**

Many of us have gardening friends or family on our gift list and just labor over what to give to them for Christmas. Well, a gardener can never have too many tools! A high quality tool is always welcome. A tool that you want that normally you would not buy, may be the perfect gift for someone. Look for large, sturdy handle tools made of durable materials. If a tool is not on your list here are some ideas.

• **Spice Flavoring Basket:** Make up a theme basket as a gift adding 4 spices per theme such as a grilling basket – 4 different rubs. Add some nuts, hot chocolate, tea or other items your

gardening friend might like.

- **Gardening books:** Gardening books are always a treasure as well as absolutely necessary resources, even with the internet so available.
- become a necessary part of the gardener's wardrobe. The question is not whether to have a garden tote, but which style. There are so many to choose from. Important features are size (what you want to fit in it and lift and carry), sturdy construction and ease of organizing.

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- Hand pruners: A high quality pair of pruners is a gardener's best tool. There is probably no other tool that will get more use. A clean cut is so important to the plant's health. Look for one with replacement parts and probably a by-pass is a good choice. There are ergonomic ones available or ratchet-types for those with hand and joint issues.
- Windowsill Herb Garden: A fun gift for a gardener



with a sunny window. There are many different kits available with seeds and all that is needed.

• Garden Clothing: Gardeners love t-shirts and all sorts of things with gardening sayings on them. Be sure and find out the right

size....getting a smaller size is sometimes more of a compliment.....but best to get the correct size for your gardener friend.

# **Asparagus**

Asparagus is a garden delicacy that is easy to grow in the home garden. Asparagus is harvested in the spring and can be planted in the fall. This vegetable is perennial and best put in the landscape or an area of the garden you do not plan to rotate to other vegetables. This vegetable will stay productive for many years. The key to success is location, soil type, fertility, size and age of crowns, and correct planting.



Varieties -Mary Washington (a rust-resistant variety) is a standard for most home gardeners. The all male hybrids Jersey Gem (cercospora leaf spot tolerant) and Jersey Knight have a higher yield and produce no seed. With no seed production you do not have seedlings that you will have to weed out. Atlas is a very large diameter spear but only available from California Asparagus Transplants and Seed in Davis, California.

How Much To Plant - Ten crowns are needed for each family member to have enough for fresh table use. If you are especially fond of asparagus then 25 crowns per family member is recommended so you will have a surplus to can or freeze. If using the new hybrids other than Mary Washington you can cut the number of plants in half.

Soil and Soil Preparation - Any well-drained soil will produce good asparagus. Use deep, fertile, sandy loam or loamy soil. If your soil is clay, you should condition it with compost so spears will emerge straight. Using a raised bed is especially helpful with heavy soils. Have a soil test taken before planting. Take soil samples 12 inches deep. The soil pH should be 6.0 to 6.7 because asparagus grows poorly in acid soils. Choose a site relatively free of perennial broadleaf weeds and nut-grass.

**Planting -** Crowns (roots) should be planted in rows 5 feet apart with the crowns spaced 12 inches apart in the row. The distance between rows can be reduced, but this may shorten the life of the bed. Closer in-row spacing will increase yield. Use large, well-rooted, one-year-old, disease free crowns, purchased from a reliable source. In the

Piedmont, plant in late winter after the danger of a hard freeze is over, but before plant growth starts. Plant the crowns in a furrow 8 inches deep. Make the furrow wide enough to accommodate the root system of the crowns when fully spread out. When placing the crowns in the furrow or trench, be sure to have the buds pointing upward. Cover the crowns with 2 inches of soil. As the plants grow, pull soil around the plants gradually until the trench is filled.

Annual Bed Care - Cultivate when necessary to control grass and weeds to insure a good crop of large spears. During the harvest period, asparagus can withstand shallow cultivation. Each spring just before the spears start to grow, broadcast a complete fertilizer such as 5-10-10 on the bed at the rate of 2 to 5 lbs per 100 square feet. This should be done about March 15 for the Piedmont. Give the bed a second application of fertilizer at the end of the cutting season. Allow the plants to grow until they have turned brown in the fall usually after a couple frosts. Then cut down the tops and destroy them. If cut down before frost, the next year's crop of spears is reduced.

Harvesting - Do not harvest asparagus the first growing season after planting crowns. It can be harvested for a short time (not to exceed two weeks) the second year. Weak plants and small spears result from harvesting too much, too early. The third year after planting crowns, harvest spears of asparagus for a 6 to 8 week period each year. Weak plants should be harvested for less time. Exercise care in cutting the spears to prevent damage to those spears that have not yet emerged. Cut or snap the spears at ground level. This practice eliminates the possibility of damaging other spears.

**Preparation For Use -** Asparagus loses edible qualities rapidly after harvest. Fiber develops rapidly after harvest. To maintain asparagus quality, wash and cool asparagus soon after harvest. If the asparagus wilts, it can be made turgid by soaking in cool water.

(The information in this article was taken from a North Carolina Cooperative Extension leaflet H1L-8002 written by Douglas C. Sanders, Extension Horticultural Specialist, NCSU)

# Keeping the Community in Your Community Garden

"Never doubt that a small group of thoughtful, committed individuals can change the world. Indeed, it's the only thing that ever has."

Margaret Mead



There are many benefits derived from participating in a community garden. While focus is usually on the benefits associated with access to sunny garden plots, the opportunity to grow fresh, nutritious produce and saving money on your food budget, this month's focus will be on building social capital through building a community garden organization.

Establishing a garden organization can seem unnecessary when a group has come together just to grow some beans and tomatoes, but if the group desires the garden to become a fixture in the neighborhood or agency, attention to organizing is critical.

For a community garden to be successful, you not only need the right growing conditions and good horticultural practices, but you need an organizational framework that fosters a setting which allows for individual participation and an overall focus on what is best for the whole garden group. Although many community garden structures will be organized along similar guidelines, it is important for each garden to reflect the individual gardeners and garden purpose.

A garden organization which functions well will provide

opportunities for the garden members to develop leadership skills, experience the joy of service, and to develop camaraderie. Every garden needs a champion, someone who believes in the project and will lead the way to success. The challenge is to have a social environment where individuals are welcome and encouraged to use their gifts for the benefit of the group. Successful organizing of community gardens will ensure a volunteer core group and many years of growing not only fresh produce, flowers, and herbs, but long and deep friendships in the garden.

The American Community Gardening Association has come up with a list of characteristics for an effective community garden structure:

- DCan out-live any one person
- ▶ Has a clear and simple purpose that directly impacts the lives of people
- ▶ Equitably distributes power and employs democratic decision-making processes
- Is transparent (anyone can understand how it is put together)
- Has easy systems for information exchange and communication (a filing cabinet, a newsletter, an email distribution list, a garden bulletin board)
- Has regular meetings to allow for planning, education, and socializing.

Working together on the common goal of growing food provides opportunities for people to have discussions about social and economic justice. Topics of hunger, food access, and fair pricing of food are conversations which can easily come up while gardening together. The garden group can become an effective force for change in our community by increasing awareness of and coming up with 'home grown' solutions for these issues.

Organizing your community garden has many benefits. Creating connections between individuals is just one. If you would like more information about organizing a community garden, please contact Mary Jac Brennan at 703-2869 or <a href="mailto:brennamj@forsyth.cc">brennamj@forsyth.cc</a>

## Ways to Reuse Your Live Holiday Tree - so it will be beneficial to nature and to you

- Make a seasonal-scented potpourri by mixing equal amounts of balsam or pine needles, bayberry leaves, a few drops of pine-scented oil, and pinecones with orrisroot, a fixative that absorbs the scent. You can find orrisroot and oils at herbal shops, many pharmacies and craft stores.
- To attract more wildlife to your yard, simply lay the tree on its side, tie several trees to make a small forest (ask some of your neighbors for their trees) or stand it upright. This provides shelter from predators and helps reduce the wind chill making birds more likely to visit feeders. Make some treats by pouring melted peanut butter and bird seed over the branches at different heights. You can also place strings of popcorn or cranberries, hang orange slices, hang peanut butter-packed pinecones, or suet balls filled with seed on branches.
- Place tree boughs over spring-flowering bulbs and perennials. The branches catch and hold snow which helps insulate and protect plants.
- If you own a pond, sink your Christmas tree in it to improve fish habitat and fishing. The tree branches provide substrate for water plants to grow and shelter for small aquatic life. Larger fish, like bass, are attracted to the shade and the presence of prey.

# New Year's Resolutions for the Gardener!

- 1. I will mulch my perennials after the ground freezes to help them overwinter comfortably even though temperatures may fluctuate in the Piedmont garden.
- 2. When studying plant catalogs, I will look for pest and disease resistant plants, such as mildew resistant phlox, fusarium resistant tomatoes and others that will make my gardening job easier.
- 3. I will send a soil sample to the NC Dept. of Agriculture (a free service provided by Forsyth Cooperative Extension) to learn what my lime and fertilizer needs really are, rather than guessing.
- 4. I will set plants in the ground only at the proper depth.
- 5. I will inspect plants more carefully before purchasing to find evidence of invaders such as spider mites and scale.
- 6. I will spread a circle of mulch around young trees to keep lawn mowers and weed eaters from damaging the bark.
- 7. I will only use a few inches of mulch and keep it a few inches away from trunks and stems of plants.
- 8. I will scout regularly for symptoms in the garden so that I can pick off the occasional leaf before problems get worse.
- 9. I will irrigate new trees and shrubs the first two years especially during dry weather to help them establish good root systems.
- 10. I will use a soaker hose or some type of irrigation system for the flower beds and vegetable garden that won't wet the foliage and encourage leaf spots.
- 11. I will encourage beneficial insects and mites by minimizing the use of broad spectrum insecticides.
- 12. I will join the Forsyth County Master Gardener Program to learn more about the fun of growing and maintaining plants effectively or I will participate in programs that they offer!

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