

The Art of



*Companion
Planting with*

ANNUALS

A
Little Book
Full of All the
Information
You Need



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***A LITTLE BOOK FULL OF ALL THE INFORMATION
YOU NEED***

The Art of Companion Planting with Annuals: A Little Book Full of All the Information You Need

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A few years back we lost our beloved pet dog Bear, who was not only our best and dearest friend but also the “Vice President of Sunshine” here at Atlantic Publishing. He did not receive a salary but worked tirelessly 24 hours a day to please his parents.

Bear was a rescue dog who turned around and showered myself, my wife, Sherri, his grandparents Jean, Bob, and Nancy, and every person and animal he met (well, maybe not rabbits) with friendship and love. He made a lot of people smile every day.

We wanted you to know a portion of the profits of this book will be donated in Bear’s memory to local animal shelters, parks, conservation organizations, and other individuals and nonprofit organizations in need of assistance.

– Douglas & Sherri Brown

PS: We have since adopted two more rescue dogs: first Scout, and the following year, Ginger. They were both mixed golden retrievers who needed a home.

Want to help animals and the world? Here are a dozen easy suggestions you and your family can implement today:

- *Adopt and rescue a pet from a local shelter.*
- *Support local and no-kill animal shelters.*
- *Plant a tree to honor someone you love.*
- *Be a developer — put up some birdhouses.*
- *Buy live, potted Christmas trees and replant them.*
- *Make sure you spend time with your animals each day.*
- *Save natural resources by recycling and buying recycled products.*
- *Drink tap water, or filter your own water at home.*
- *Whenever possible, limit your use of or do not use pesticides.*
- *If you eat seafood, make sustainable choices.*
- *Support your local farmers market.*
- *Get outside. Visit a park, volunteer, walk your dog, or ride your bike.*

Five years ago, Atlantic Publishing signed the Green Press Initiative. These guidelines promote environmentally friendly practices, such as using recycled stock and vegetable-based inks, avoiding waste, choosing energy-efficient resources, and promoting a no-pulping policy. We now use 100-percent recycled stock on all our books. The results: in one year, switching to post-consumer recycled stock saved 24 mature trees, 5,000 gallons of water, the equivalent of the total energy used for one home in a year, and the equivalent of the greenhouse gases from one car driven for a year.



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INTRODUCTION: Overview on Companion Planting

Companion planting is a phrase that has taken on many meanings for today's gardeners. Within the scientific community, companion planting is also called **intercropping** and is a form of **polyculture**, which describes a method of planting species of plants together for mutual benefit, usually in agricultural situations.

For the layman, **companion planting** is best described as the practice of planting two or more plants together to enhance the growth and quality of nearby plants; to provide maximum ground cover; and, when possible, to improve the soil. This approach to gardening offers many benefits, with the trade-off being that more thought needs to go into the garden planning stage when deciding which plants should go where. Although there is no scientific explanation as to how or why the plants benefit one another, when planted in “companionable ways,” much has been learned over the years — with a great deal of success.

Some of the successful companion planting relationships are due to the release of chemical secretions at the roots, which may affect other plants or have an effect on organisms in the soil. It has been theorized that companion planting benefits may result from the plant releasing certain gases or odors that can repel pests from either the roots or the above-ground parts of the plant. With certain predators (notably insects that damage the plants) out of the way, the plants can flourish. The same goes for other potential pairings. One plant may have the ability to do something like provide structure, add nitrogen to the soil, or offer shade in such a way that makes another plant flourish without hurting itself.

There have been lab studies where scientists have tried to replicate the results of companion planting — with mixed results. By adding the juices of pairs of plants to a 5 percent copper chloride solution and allowing it to crystallize slowly on a glass plate, Dr. Ehrenfried E. Pfeiffer and Dr. Erica Sabarth of the Bio-Dynamic Association

were able to predict which plants would be companions and which would be antagonistic from the resulting crystallization patterns. Their findings, along with the trial and error of numerous gardeners, were summarized in a pamphlet by Richard Gregg in 1943 called *Companion Plants and How to Use Them*. Today, similar studies use paper chromatography techniques for related tests.

The companion annual suggestions in this book should be used as a basis for your own experimentation, not as a proven guide to success. One of the most important considerations when you look at choosing your own companion annuals is to not lock yourself in by this book's information. Try some of the combinations out for yourself, experiment with new ones, but also play around with the spacing between the plants and the ratio of one plant to another.

As you become more familiar with the subject, you will eventually realize there is conflicting information — partly due to everyone's individual experiences based on geographical location, climate, and garden conditions. Therefore, the rule to companion gardening is simple: Try it out for yourself. Keep a record of your attempts and have fun with it. Plant basil in among your tomatoes and watch them grow like mad. Try basil in with the peppers for a similar result. Or, try adding in parsley as it can help tomatoes grow strong and healthy.

Companion planting requires a gardener to shake off his or her idea of traditional gardening and make room for new concepts. You will need to let go of concepts that define what a weed is and consider the fact that the weed could have value. Are there stinging nettles, a common weed across the United States, in your area? Have you spent hours trying to eradicate this weed that can grow up to 10 feet tall? Well, stop because they have value. If you grow them close to aromatic herbs, they are supposed to increase the aromatic oils in these herbs by as much as 75 percent. Stinging nettles, like foxglove and lily of the valley, are reported to improve the length of time the fruit from their companion plants can be kept once picked, particularly tomatoes.

Scientific research supports companion planting in the agriculture industry in terms of intercropping and crop rotation, the process of rotating crops for healthier soil and plants. Companion planting applies to prevention or protection from pests and diseases, as well as attracting the right type of insects for pollination and for soil improvement. It is important to note that just as some plants will benefit from being close together, other plants will suffer from the pairing.

There are a few rights and wrongs to take note of, such as realizing that not much will grow under the black walnut tree, which it found across most of the United States and Canada. This tree releases a chemical into the soil that ensures nothing near it can

compete with the nutrients and moisture that it needs, making it an undesirable plant to choose in companion planting. Marigolds are planted all over the world to repel all kinds of pests. If you take the dead marigold plants and **dig them under** in the fall (meaning, leave the plant in the ground and turn the dirt and soil over, chopping the plant and roots as you do so), almost nothing will grow where they grew, and as the plant pieces decay, they will kill anything you plant. But by spring, the soil is safe for planting again. Companion planting allows you to take advantage of the systems already in place in nature to make the most of your garden.

Companion planting can increase your yield of vegetables and even enhance the flavor of some if planted with specific herbs. Beneficial plants to have in your vegetable garden are wild rose, elderberry, buddleia, privet, golden rod, and mustard. With this type of system, it is easy to combine flowers, shrubs, trees, and vegetables for larger and better-tasting yields. If you are short on space, consider planting to maximize the space available such as by planting runner beans with dahlias or pairing curly parsley with cosmos. Another combination that can work well are clematis flowers with apple trees as the clematis can climb the trees and utilize the space under the tree that is often wasted.

While companion planting is a lot of fun, it also makes the vegetable garden more attractive, both to the eye and to the nose, and offers practical solutions to common gardening problems.

It can intensify the beauty of flowers by combining them with plants of contrasting shapes, color, and height. This type of system can be used to provide practical needs like shelter from wind, shade, or help prevent soil erosion. It allows a gardener to combine all the elements of a backyard garden into a small space without sacrificing yields or beauty.

Companion planting has guidelines but no rules. It offers suggestions, but ultimately allows you to create a garden that will work for you in the space you have available. This type of system will work for any level of gardener, who takes the time and put in the effort to find what works best for their area.

This book will introduce you to the art of companion planting with annuals. As a bonus for all types of companion planting, there is special section on feeding your garden properly to ensure it grows big and healthy, and a chapter on garden maintenance. Case studies of real stories from real people along with a list of resources to help you learn more about companion planting in general are also included.

Happy planting and be sure to check out the other books in this series:

- The Art of Companion Planting with **Herbs**: A Little Book Full of All the Information You Need
- The Art of Companion Planting with **Vegetables**: A Little Book Full of All the Information You Need
- The Art of Companion Planting with **Perennials**: A Little Book Full of All the Information You Need
- The Art of Companion Planting with **Wildflowers and Weeds**: A Little Book Full of All the Information You Need
- The Art of Companion Planting with **Bulbs, Tubers, and Rhizomes**: A Little Book Full of All the Information You Need
- The Art of Companion Planting with **Shrubs, Bushes, and Vines**: A Little Book Full of All the Information You Need
- The Art of Companion Planting with **Fruits**: A Little Book Full of All the Information You Need

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CHAPTER 1: The Art of Companion Planting

Companion planting is a system that lends itself to trial and error. Over the centuries, gardeners have planted certain plants in close proximity and they have noticed the end results. Plants naturally take in air and minerals and release chemicals through their own secretions or root excretions. For example, a plant that excretes nitrogen into the ground can make this element available to others that need a nitrogen-rich soil.

Some plants are found to lift many trace minerals from the soil in which they grow. Plants like these can be especially useful when turned into compost or mulch because they will then feed other plants with these valuable minerals. Allow the plants to grow to a mature size, then turn them under for green mulch or harvest them and bury them in the compost pile.

History

Historically, there is no one point where we can say that companion planting actually started or at what geographical location in the world it originated. Many agricultural practices have been used for centuries with the origins lost – companion planting is just one of them.

In North America, the search for the origin of companion planting leads us back to American Indians and their companion planting practice called “Three Sisters.” The Iroquois of the Northeastern United States and Canada primarily used this practice and it involved planting corn, beans, and squash. These crops were the mainstay of the Iroquois’ diet and were believed to be special gifts from the Great Spirit; as such, they were under the protection by the spirits called the Three Sisters. They were planted as a mainstay crop for the people and their system of planting was revered.

The Iroquois planted the three crops together. Corn gave structure and support for the bean plants to climb up; the beans replenished the soil with nutrients for both the corn

and squash; and the large multiple leaves of the squash vines offered a protective mulch that helped the plants conserve water while providing weed control for all three plants. When planted in this special way, the plants thrive in a small space and are capable of producing high-quality yields with minimal to no environmental impact.

Over time, many other companion planting combinations were tried, with varied results. Much of this knowledge was handed down from generation to generation, and some of it today may be found to be folklore of other cultures.

Plants and their identifications have changed over time, as have horticultural methods, climates, and soil content. There has also been the introduction of chemically based pesticides and fertilizers and advancement in seeds, propagation, and cultivation. All of these affected the basics of gardening but the premise of companion planting remains the same.

Biological Benefits of Combining Plants

There are specific biological effects of combining plants, such as:

- **Nitrogen Fixation** – plants that increase nitrogen in the soil
- **Pest control** – plants that repel “bad” pests or attract in “good” insects to the garden
- **Enhancing flavors** – the plants that can subtly enhance the flavors of other plants
- **Level interaction** – plants that grow on different levels to provide ground cover or work as a climbing trellis
- **Pest trapping** – plants that can attract certain pests in order to keep them away from other plants
- **Shelter plants** – plants that provide windbreaks, shade, and prevent soil erosion
- **Crop rotation** – plants can be grown and tilled into the ground to provide nutrients for the next crops or rotated from bed to bed to minimize problems

Nitrogen fixation

“**Nitrogen fixation**” may sound odd, but it is the term for plants such as peas, beans, and clover that can “fix” or excrete atmospheric nitrogen for their own use and for any close neighboring plants thanks to their relationship with the bacteria in the ground. This relationship increases the nutrients in the soil, making it available to other plants that are growing beside it – a perfect relationship for companion planting – one plant “helping” another. The nutrients are also available to plants grown in the soil after the legumes are pulled.

Plants that have the bacteria that can convert the nitrogen in the air into nitrogen compounds and bind them to the soil include alfalfa, red clover, and bluebonnets. These last plants are intended to be turned under at the end of the season as a **green manure**, or organic compost for the benefit of the garden.

Forage legumes are commonly planted with grasses to minimize the use of nitrogen fertilizer. Another example takes us back to the American Indians and their system of planting beans with corn. The beans helped the corn receive enough nutrients by “fixing” the nitrogen that allows it to grow and produce excellent yields.

Pest control

Companion planting is often considered part of the organic gardening philosophy as it avoids using chemicals and pesticides. Controlling pests through natural means can have many positive effects on the garden such as:

- Preventing the spread of disease through your garden
- Decreasing the damage pests cause
- Reducing the effect of chemicals you may have been using in the past

Keeping away pests can help your plants grow and flourish in ways you never thought possible. For example, planting catnip in the garden deters aphids, ants, Japanese beetles, and weevils. Mice also do not like the plant and will not stay in a garden where catnip is planted. As the plant is bushy with a light green leaf and dark purple flowers, it is an attractive yet functional addition to any garden.

This type of planting can take some time for the results to show. If you have planted marigolds to deter nematodes, the effect is not going to show itself instantly or even in the next month. Instead, it may take a full year’s cycle before the marigolds have done their job. Gardeners who claim the system has failed often have not given the plants time to work. The plants need time to take hold and the life cycle of the pests need time to die out.

Companion planting can also attract the “pests” you do want. Why would you want any pests? Some insects are helpful in the garden. Wasps, for example, are an asset for most gardens because they eat grubs. Some insects are also pollinators. Some plants require pollination because they cannot reproduce on their own or bear fruit unless the pollen is delivered from one plant to the next. The fastest and most efficient way to do this is to have the right insects in the garden. A few beneficial pests are bees, wasps, birds, and dragonflies.

Enhancing flavor

Companion planting is not an exact science; it is a natural science. However, some combinations have proven themselves over and over again. A prime example is basil, which goes great with tomatoes in the kitchen and can also enhance the flavor of the tomato if it is grown beside it in the garden.

Most herbs have been found to enhance the flavor of fruits and vegetables that are grown in close proximity, and basil grown beside tomatoes is a prime example. Bee balm is also known to improve the growth and flavor of tomatoes. German chamomile, also called wild chamomile, has a strong aromatic odor and is believed to improve the growth and flavor of cabbages, cucumbers, and onions when grown beside them. Whether that is due to the increase in nutrients or because the plants share the common soil where nutrients and by-products are expelled and mixed, gardeners swear by the practice.

Level interactions

Level interactions, also known as **physical space interactions**, involves planting tall plants with short plants to provide shade and even structure. Tall, sun-loving plants will shelter short, shade-tolerant plants, which results in better production and can even offer pest control. A good example of this type of relationship involves the popular corn planted with squash in the Three Sisters example. The tall corn throws shade for the lower squash but also the corn appears to stop an insect called the squash vine borer beetle. Another added benefit is the prickly vines of the squash deter the raccoons from stripping the corncobs.

When planting this way, you can plant two or even three different levels of plants, including a ground cover crop at the base. If the soil has sufficient nutrients, then the plants can thrive.

Pest trapping

Another term for this type of companion planting is **trap cropping**. With this system, a specific plant will be placed in the garden for its ability to attract a pest, thus keeping the pest away from the rest of the crops. The trapped insects on the plants can be disposed of in another way, such as bending the branch or stalk of the plant in a bucket of soapy water to kill the insects. Or, if you prefer, you can leave the plant, now full of bugs, alone for the season because the bugs will remain there.

A prime example of a pest is the diamondback moth, which can destroy a cabbage crop. Plant collard greens close by to attract the moth, keeping it away from the

cabbage. Rose plants are another example — to keep the Japanese beetle out of your roses, plant old-fashioned four o'clocks, a beautiful perennial aptly named because the flowers only open after the sun has gone down.

The mustard plant is a big contender in this category as well because it will attract cabbage worms and harlequin bugs. Cabbage worms refer to several species of caterpillars but the main one in North America is small, fuzzy, bright green, and feeds on cabbages, broccoli, and cauliflower. The harlequin bug, indigenous to the southern United States, looks like an orange and black stink bug and can destroy an entire crop of cabbage, Brussels sprouts, turnips, kohlrabi, or radish. In fact, if they cannot find any of these, they will move on to potatoes, okra, beans, beets, and even fruit trees and field crops. However, if you plant the mustard plant in a separate area of the garden early in the spring, the bugs will gather on it. You cannot get rid of them by pulling up the plants because the bugs will scatter and will simply find another plant to latch onto. Instead, you can dunk the leaves or bend the stems into a bucket of soapy water to drown the insects, or spray it with insecticidal soap. Even better, consider planting the mustard plants with some of the plants that attract parasitic wasps or tachinidae flies, such as tansy, clover, and dill, as they are both predators of the harlequin bug.

Shelter planting

One of the most helpful benefits of combining plants is the ability to provide natural windbreaks, shade, and trellises. Some plants can grow to different heights while occupying the same space. The example of planting corn and beans together applies here again; the cornstalk serves as a trellis for the beans to climb, while the beans do not harm the corn stalk or the corn and they help by adding nutrients to the soil.

Heavy winds can damage gardens by removing mulch, topsoil, and eroding packed beds and hillsides. Rain and hail can also cause severe damage by beating down young seedlings and tightly packing a new soil covering that has just been laid. This is where a tight ground cover can help. By carefully selecting the right type of ground cover, the gardener can help prevent soil erosion without harming nearby plants. The best groundcover plants are usually those that prefer shade. For example, **cut-and-come-again salads**, meaning salad greens that do not need to reach maturity before harvesting and can be cut to grow again, are easy to grow, and all they need is a narrow band beneath other rows of plants. They create a beautiful groundcover while taking advantage of a space that is not very useable for other plants. Clover is another example of a ground cover that likes shade and will help keep the soil covered against wind, rain, and hail.

Crop rotation

History has shown the problems of not utilizing crop rotation – think of the Irish Potato Famine problem of the mid-1800s. In this case, blight, a fungus, destroyed three-fourths of all the potato crops for years, creating widespread famine and eventual death for much of the population. Potato was the main crop of the country and the most widely consumed food of the middle- to lower-class people. The people starved when the potato crop failed because they had no secondary crops to succeed as food or cash crops. When only one crop is planted, this is called **monoculture**. Planting potatoes, sunflower, or safflower in the same place year after year can lead to an extensive spread of Verticillium fungus and kill off the entire crop for the season and even affect future crops.

Crop rotation means relocating the crops to a different part of the garden every year. When companion planting, you need to ensure succeeding crops are always a completely different genus or species than the previous year's crop to minimize disease. The rotation sequence is usually at least two years, but it may be longer. For example, if you plant potatoes in one spot, do not plant them in that spot again for at least three or even four years. The reason you want to rotate your crops is to accomplish the following:

- Minimize disease
- Discourage insect infestations
- Deter weeds
- Improve soil fertility
- Reduce erosion
- Reduce the use of chemicals

Number of beds to rotate

The number of crops you want to grow will determine the number of beds that you rotate. If this is your first attempt at establishing a vegetable garden, it is best to start small. A 10 foot by 15 foot plot will be large enough for someone just starting out. It does not have to be a square so consider a round, rectangular, or even an oval-shaped garden.

You will need to decide whether you will be companion gardening at ground level or in raised beds. Raised beds allow for more intensive planting and can provide just as many vegetables as their larger counterparts. When considering crop rotation with raised beds, you will take the crop from Bed 1 of this year and move it to Bed 2 next year, then to Bed 3 in the year after, and so on. If you are not sure how many beds to

create, try for four. You can plant in three beds while allowing the fourth to rest as you build it up with compost and green manure.

Most people group beds by classification; others group them with “like” qualities. For example, you could divide crops by the nutritional requirements:

- **Group 1:** Leafy plants that thrive on oxygen — lettuces and salad greens, broccoli, cabbage, cauliflower, and kale
- **Group 2:** Fruits that need phosphorus — squash, melon, pumpkin, tomatoes, peppers, and cucumbers
- **Group 3:** Roots that love potassium — onions, shallots, garlic, leeks, carrots, turnips, and radishes
- **Group 4:** Soil replenishers — legumes, corn, potatoes, beans, and peas

Another way to divide crops is by these classifications:

- **Cultivated row crops** — corn and potatoes
- **Close-growing grains** — wheat and oats
- **Cover crops** — clover and grasses

There have been many studies showing that certain crops should (or should not) follow others for the best yield. Beets will yield best when they follow barley or wheat; soybeans should follow beets; and potatoes should never follow tomatoes.

For more information on crop rotation, here are some online resources you can reference:

- Manitoba Agriculture, Food, and Rural Initiatives’ Web site offers extensive information on crop rotation research and the inherent benefits of this type of program — www.gov.mb.ca/agriculture/crops/forages/bjb00s43.html.
- Ontario Ministry of Agriculture Food & Rural Affairs’ Web site offers information on crop rotation for agricultural purposes — www.omafra.gov.on.ca/english/crops/field/news/croptalk/2002/ct_1102a6.htm.
- North Dakota State University’s Web site offers information and charts on the crop rotation for various agriculture crops and the benefits each type of crop provides — www.ag.ndsu.edu/pubs/plantsci/crops/eb48-1.htm.

To decide how to rotate your own crops:

- Make a list of the crops you want to grow

- Fertilize and mulch the current bed for the crop it contains
- If you are growing legumes, always plant them after grains to replenish the nitrogen in the soil taken by the grain crops
- Incorporate as much compost or green manure into your garden as possible at all times
- Keep careful notes of your crop rotations so you know from year to year what was planted in what location

Another consideration after crop rotation is how to maximize your yield. Because each plant requires different nutrients and is also used as a food source for different destructive pests, planting a different crop in the space each season can both reduce the presence of pests and replenish the soil, giving the gardener the best chance of increasing yield.

Beans and corn once again offer an easy example. Corn requires a great deal of nitrogen in order to produce a good yield, and beans fix additional nitrogen into the soil. So by following beans with corn, you will have a greater production of corn.

Cover crops

Cover crops are a second crop planted to improve the production of the primary plant. This is an important concept of companion planting where one plant can help others. Examples of this type of crop include grasses that are grown in orchards or legumes grown during the winter season to improve the crops. Some plants like rye and clover can be planted immediately after a crop is harvested to protect and nourish the soil. In some instances, the secondary plant is grown immediately to absorb any nitrogen left in the soil after the fall harvest that would otherwise escape into the groundwater.

The home gardener needs to understand that some plants help build soil, and others leach the nutrients out of it. Most cover crops help build the soil and can:

- Provide protection from sun and weeds
- Give food for beneficial insects
- Provide nutrients for other plants by being worked into the soil at the end of the season

Cover crops are usually divided into legumes and non-legumes. Legumes, which include beans, peas, and lentils, are able to fix nitrogen, and can provide at least some of the nitrogen requirement for the next crop in rotation. Legumes generally provide more nitrogen, but less total organic matter than non-legumes. The advantage lies in their nutritional value, so they are often used anyway. Non-legumes include wheat,

rye, corn, buckwheat, oats, and barley. They are vigorous growers and will provide organic matter to be worked back into the soil.

Within both legume and non-legume groups, there are species specific to either a warm season or a cool season. By using both types of plants, it is possible to improve the overall productivity of the soil. During the growing season, cover crops prevent soil erosion and help control weeds. At the end of the growing season, the cover crop is dug under, without pulling the plants, to improve soil structure, aeration, water holding capacity, and nutrient content. Even with cover crops, it is important to have a plan for rotating different grains. Using the same cover crop year after year will increase plant-specific pathogenic organisms. By switching out to a different cover crop, the gardener will interrupt the life cycle of the organism and discourage it from multiplying.

If you are not using raised beds, you can actually mow cover crops to provide instant organic mulches for the growing plants. Think of a large orchard planted with special grasses; mowing them back helps keep the growth in check and produces good mulch for the orchard.

Planting cover crops is easy if you are using seeds, which is one of the easiest and cheapest ways to plant large areas; you can sow the seeds like you are spreading chicken feed to your fowl. Walk forward through the garden and toss out handfuls of the seed in a circular motion, attempting to cover the area evenly. If you are sowing several different kinds of seeds, you can either mix them into one general seed pile first and then throw them all out together, or you can sow first one and then the other. If you are sowing raised bed gardens, you cannot walk forward so it is best to walk along the side and try to spread the seed evenly throughout the bed.

Now that you have an understanding of how to start companion planting, you will want to decide on what kind of plants to include in your companion garden.

Ways to Choose your Companion Plants

Every gardener has different tastes and different needs and every garden will present growing conditions that offer up a challenge. The growing conditions between your yard and your neighbor's yard can be different, and there can even be differences between your front yard and your backyard. And, as any gardener will tell you, the geographical area of the country in which you live will often dictate the way that your companion plants work together. A distance of only a few hundred miles can present an entirely new set of landscape, temperature, and humidity conditions. Soil may be rockier or sandier or the pH may be higher or lower, affecting conditions enough to

change the transplanted gardener's approach to his or her garden.

Every garden contains sun, shade, sheltered spaces, open areas, dry spaces, and places that retain water. These mini-ecosystems must be understood and taken into consideration before designing a garden or choosing the plants to go in it. If space is unlimited for the garden, then crops, herbs, flowers, and shrubs may all be placed where it best suits them. Few gardeners have that freedom in most cases, so space is at a premium.

As with any garden, you need to understand what you have to work with before you create your companion garden. The type of soil, the amount of water available or that you will need, and the amount of sun or shade available should also be considered. Then you have to consider the types of plants that will fit into and flourish in your garden. If you are looking to incorporate a more intensive companion gardening system into your plans, the soil will need to be rich and heavy in nourishment to accommodate the extra plants.

You must select the right plants to accommodate the planting area, rather than the other way around. Let us take a closer look at some of the ways you can select plants for your garden.

Choosing by climate and geographical location

When you purchase plants in a garden shop, they will be tagged with a hardiness zone number.

The hardiness zone is a system the U.S. Department of Agriculture (USDA) developed as a rough guide to the plant's hardiness. The term "rough" applies because hardiness depends on many factors, such as:

- Duration of cold or hot weather in any given year
- Force of wind
- Depth of roots
- How much water is in the soil at the time frost first hits

The USDA has divided the United States and southern Canada into 11 planting zones or USDA Plant Hardiness Zones. The USDA has defined these regions by a 10 degrees F difference in the average annual minimum temperature in the area. The higher the USDA hardiness number, the warmer the temperatures are for gardening in those planting zones. This means that areas within northern Minnesota are in USDA planting zones of 2 and 3, and southern Florida is in the USDA zones 9 through to 11.

However, most of the United States falls into the USDA zones of 4 through 8, which