

# Cool Crops: Early Season Veggies

Cool season vegetables are those that prefer to grow, and produce, during the shorter, cooler days of spring or fall. Many, including the annual plants, can handle temperatures at or below freezing. We have a good climate for these cooler season veggies here in the PNW!

## Choosing Your Growing Site

The first step is to determine how much sun you have. I have used a couple different apps on my smartphone (Sun Position, Sunrise & Sunset, or Sun Position & Path) that will show the path of the sun. They also show hourly markers to help you figure out how many hours of direct sun the spot you are standing in gets. Your growing site may be decided for you if you do not have many options.

Most vegetables prefer full sun or 6+ hours of direct sun. Some will grow and produce for you in partial sun areas that receive 3 to 6 hours of sun daily - they may not grow as vigorously, prolonging the days to harvest. Many greens grown for their leaves will grow in part sun giving you smaller, but more tender leaves than they would grown in full sun. (See the Cool Vegetable Groups handout below for examples.)

There are even some crops that can be started in the sun and then, once established, will do well in some shade as the weather warms. If you have deciduous trees or shrubs that shade an area once they are leafed out, you can get your cool veggies established before those leaves grow and shade the area. Another example would be growing pole peas or beans on a trellis and planting things like spinach or lettuce behind the trellis where they will get more shade as the trellised plants grow and the temperature goes up. As a bonus, beans and peas add nitrogen to the soil which encourages green, leafy growth.

## What To Grow In

There are several growing options for your cool weather vegetables. You might have a nice area for in-ground planting, if not, a raised bed is a good option too, especially if your soil is too rocky or deeply compacted. Raised beds on legs are wonderful if you are more comfortable gardening standing up. If you just want to start with a few plants or want to have a mobile garden, containers such as pots, grow bags or wood crates, could be the way to go.

## Soil for container gardening:

We carry **E. B. Stone** organic soils and amendments. To learn more, visit [ebstone.org](http://ebstone.org)



## Soil for raised bed gardening:



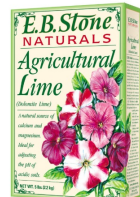
## For amending native or depleted soil:



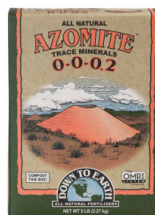
## Fertilizers

We carry E.B. Stone Organics granular **Tomato & Vegetable Food** and **Agricultural Lime**, which raises the Ph level of acidic soils, while adding Calcium and Magnesium too. You can find more information at [ebstone.org](http://ebstone.org)

Espoma **Tomato!** is an excellent water-soluble fertilizer that you can mix in your watering can. *You can learn more at [espoma.com](http://espoma.com)*



In the Down To Earth line we carry **Vegan Mix**, which is a fertilizer derived from plants and minerals. **Azomite** is one of our favorite additions to the veggie garden - besides enhancing the flavor of any edible, it helps plants store nutrients, in turn making the produce more nutrient-rich. **Oyster Shell** adds calcium to the soil, which helps build strong cells, thus strong plants.



## Spacing & Intercropping

Information on plant tags and seed packets is incredibly valuable as it will give you all kinds of important info, including suggested plant spacing and how wide a particular plant will grow. When you get to the part where it tells you how much to space your rows, keep in mind that you do not have to plant in rows, and the only extra space you may want to allow is room to tend to and harvest your plants. You can even save space by intercropping plants of different heights or light requirements.

As an example, you could plant something that grows tall, like broccoli, surrounded by a shorter plant, like leaf lettuce. As broccoli grows tall and produces a large leaf canopy, the lettuce will gain some protection as temperatures rise keeping it sweet and tender.

Another great pairing is lettuce and tall-growing pea plants. Besides the peas growing up to shade the lettuce, peas are legumes which take nitrogen from the air and make it available in the soil for themselves and their neighbors. I have had the most vigorous lettuce when growing it with peas. All leafy greens would happily gobble up extra nitrogen and produce more green, leafy growth.

# **Pests and Diseases**

## **Companion Planting**

Let's continue discussing intercropping... Adding flowering plants that are attractive to pollinators helps bring in beneficial insects. Some insects, like the ladybug's larval stage offspring, have a big appetite for aphids and whiteflies. Nectar from flowers attracts ladybugs and a crop of aphids entices them to stick around and lay eggs. Parasitic wasps lay eggs inside some garden pests and when those eggs hatch, the larvae eat the pest insect and kill it.

Speaking of a "crop of aphids," some plants like nasturtiums are a favorite. Growing nasturtiums amongst vegetables that are often plagued by aphids as a "trap crop" will often attract aphids to the nasturtium leaves instead. While it seems counterintuitive, allowing the nasturtiums to house the aphids gives those beneficial insects that eat them a reason to reside in your yard.

There are also plants that repel certain insects. Marigolds have many benefits. When planted near brassicas and the onion family, they reduce egg-laying behaviors of Onion Root Maggot Fly and Cabbage Root Fly.

## **The Appropriate/Inappropriate Landings Theory**

It has been observed that many insects seeking a specific host plant, on which to lay eggs, seem to need multiple landings on the host plant before egg-laying behavior is initiated. If crops are interplanted with unrelated plants, chances are good that the insect will land on the undesirable plant breaking the egg-laying cycle.

Plants with physical differences and a strong scent can further confuse pest insects searching for their target. Mixed plantings of vegetables from unrelated groups, such as mustard (brassica), carrots (umbellifer), and a clump of chives (allium) will have the same effect.

Many herbs have strong scents that confuse some pests when interplanted with veggie plants. Dill, chamomile, and thyme are great herbs to try. Dill is in the umbellifer group and could be planted with those in other groups. Thyme is relatively low-growing and can creep amongst taller plants.

More plants that make great companions:

**Umbellifers** (The carrot family has lacy leaves and umbrella-shaped flowers)

Dill	Fennel	Cilantro	Parsley
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**Aster Family** (a very small selection from this very large group)

Calendula	Marigold	Cosmos	Osteospermum
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**Mint Family** (again, there are many, many more than I have here)

Salvia	Thyme	Monarda	Catmint
Basil	Lemon Balm	Agastache	Lavender

I just have to throw in a couple more good ones. **Sweet Alyssum** attracts beneficial hover flies and parasitic wasps. **Bunchgrasses**, like Carex, Switchgrass and Bluestems, attract ground beetles that snack on slugs, snails and pest caterpillars.

My recommendation for more information on Companion Planting is “Plant Partners; Science-Based Companion Planting Strategies for the Vegetable Garden” by Jessica Walliser.

## **Organic treatments for pests and diseases:**

Sometimes, despite our best efforts, our plants have issues with pests and diseases. We have organic remedies that are safe to use on edibles. If close to harvest, make sure to check the label to find out how close to harvest the product can safely be used.

For more information on these products, visit [montereylawngarden.com](http://montereylawngarden.com) for Sluggo and [ebstone.org](http://ebstone.org) for the rest.

- **Slugs and Snails:** Monterey’s Sluggo
- **Aphids, Whiteflies and Mites:** Bonide’s Rose RX, Neem Oil, and Tomato & Vegetable spray
- **Caterpillars, Borers and other chewing insects:** Bonide’s Captain Jack’s Deadbug Brew and Bt
- **Fungal Diseases:** Bonide’s Copper Fungicide, Rose Rx, Neem Oil and tomato & Vegetable spray

## **Seeds vs Starts**

Starting vegetable plants from seed can be a great way to save money if you have the appropriate equipment. If you would like to start seeds indoors, I highly recommend a fluorescent or LED grow light. Seed trays and such are nice to have, but you can also recycle container by drilling drain holes in them.

Once we are into the cool crop season, there are some plants that are best grown from starts. This lets you jump ahead a few weeks on your vegetable growing and get some good harvests before temperatures get too warm.

Here is a list of plants that are both easy to germinate and quick to grow:

Beans	Beets	Carrots	Lettuce
Onions	Peas	Radish	Rutabaga
Spinach	Turnips		

Please come in to see us if you reside in the area. We love to talk about plants and help our customers achieve their gardening goals. We are also available via email. This is especially great if you have diagnostic questions. Email pictures ([sunnysidenursery@msn.com](mailto:sunnysidenursery@msn.com)) and some information and a knowledgeable team member will get back to you!

# Cool Vegetable Groups

## Brassicas/Cruciferous/Cole Crops

Known by several names, this group of plants are in the cabbage and mustard family. Most are annual or biennial plants. Knowing which plants belong to the same families can give you clues as to their preferred growing conditions and typical pests and diseases they can deal with.

Arugula	Bok (Pak) Choy	Broccoli	Brussels Sprouts
Cabbage	Cauliflower	Collard Greens	Horseradish
Kale	Kohlrabi	Mustard	Radish
Turnip	Wasabi		

## Legumes

Legumes are the bean family. Besides being staple crops (along with grains) world-wide, they benefit soil health by taking nitrogen out of the air and making it available for plants in the soil. Because of this, many legumes are grown as “cover crops” to improve soil when food crops are not growing. I have included a few cover crops in the list.

Dry Beans	Green Beans	Peas	Soybeans
Alfalfa	Buckwheat	Clover	

## Alliums

The alliums are the onion family. Some alliums are grown for the bulb, others for the thickened stalk and some have leaves that are eaten.

Chives	Elephant Garlic	Garlic	Green Onions
Leeks	Onion	Scallions	Shallots

## Umbellifers

The carrot family includes many plants that we tend to think of as herbs. One characteristic that they have in common is the umbrella-shaped flower. It helps me to remember that umbellifers have umbrellas.

Carrots	Celeriac	Celery	Cilantro
Dill	Fennel	Parsley	Parsnips

**Annuals** will germinate, grow and produce, set seed and die in one season.

Arugula	Beans	Broccoli	Celtuce
Endive	Leeks	Lettuce	Mustard
Peas	Potatoes		

**Biennials** live two seasons. They generally germinate from seed in the first season and produce food/store energy. They will live through the winter and then flower and set seed the following season.

Beets	Bok (Pak) Choy	Brussel Sprouts	Cabbage
Carrots	Cauliflower	Celery	Celeriac
Garlic	Kale	Kohlrabi	Radish
Spinach	Swiss Chard		

**Perennials** live and produce food year after year.

Artichoke	Asparagus	Chives	Horseradish
Rhubarb	Wasabi		

Most vegetables want to have 6+ hours of direct sun daily. There are some, however, that can handle shade or part sun. Some even benefit from some shade as it gets warm.

**Part Sun** – 3 to 6 hours of direct sun

Beets	Carrots	Celery	Peas
Rhubarb	Leeks	Brassicas grown for leaves	

**Shade** – less than 3 hours of direct sun

It is best to start these growing in at least part sun to get established. Example: Grow them where they get some sun while deciduous trees are without leaves. Have them established before the trees leaf out and shade them.

Lettuce	Radish	Spinach	Swiss Chard
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