

# What is a Garden Bag?

Interested in gardening?

Don't know where to start?

Garden Bags will get you growing!



A Garden Bag is a small (5-10 gallon) portable garden. They can be used on their own or in combination with other forms of gardening.

The bags have handles to allow easy transport and are made from recycled plastic fabric. This fabric allows for air to pass through the bag which leads to healthy root systems and proper drainage.

The bag's portable design allows people to garden in almost any living situation. It also allows users to move the bag during the season to allow for the best amount of sun exposure.

This guide will help participants in VINES' Build a Garden program to make the most out of their garden bags. This guide does not describe all of the different vegetables that could be grown using the bags, but highlights some of the best veggies for people who are new to gardening in and around Binghamton, NY or other areas in USDA growing zone 5.



# Words to Know



**Seed:** Small parts (like an egg) produced by flowers that will grow into new plants

**Sow or 'To Seed':** To place seeds in soil

**Transplant:** To put a plant from a pot or tray into a larger one. Can also refer to the plant that one transplants: 'a transplant'

**Direct Seed:** Planting a seed directly into the soil in your garden

**Seedling:** A very young plant, usually only a few weeks old

**Thinning plants:** To remove some plants from the growing area to let the rest have more room

**Weed:** To remove plants from your growing area that were not wanted

**Days to Maturity:** How long it will take a planted seed to produce food ready to harvest

**Germination:** The sprouting of a seedling from a seed

**Germination rate:** The percentage of seeds that will become seedlings

# The Soil in your Garden Bag



**Compost**— Decomposed plant material. This gives the Garden Bags the food they need to grow plants throughout the year.



**Perlite**— Low-density puffed rock. This material is great at keeping water in the soil so that your bags don't dry out too fast. It also makes the soil mix lighter.



**Peat Moss**— a dried plant material. Peat moss also helps the Garden Bag hold moisture.

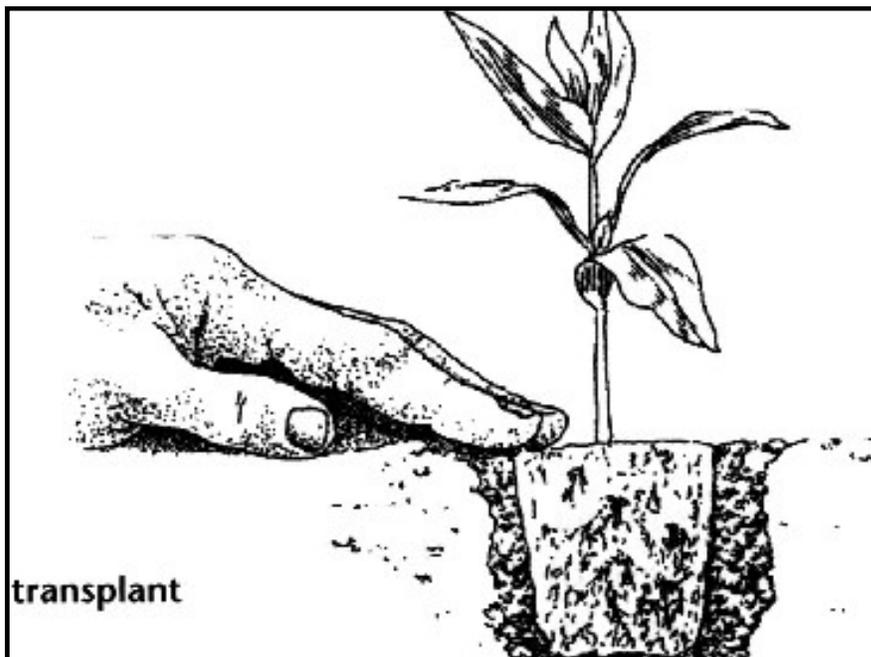


**Lime**— Lime helps the Garden Bags with mineral needs. Just a little bit brings plants to their full potential.

**We use a ratio of 10 gallons compost, 5 gallons perlite, 10 gallons peat, 1 cup lime in our mix.**

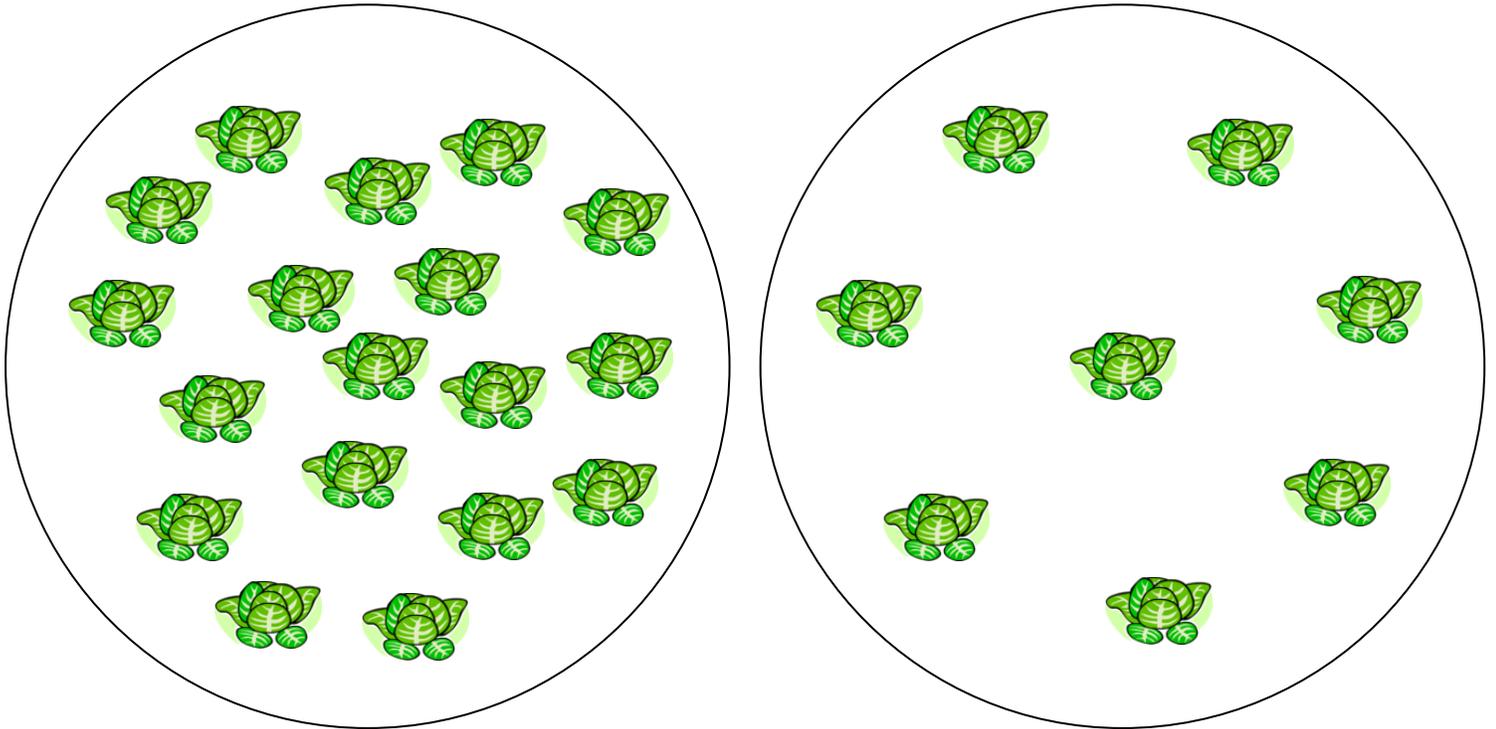
# Transplanting Seedlings

1. Lightly water the Garden Bag so the soil is moist, but not muddy.
2. Remove plants carefully from their containers. If they were grown in paper pots, just break open the bottoms of the pot and plant with the paper on.
3. If there is a clump of tangled roots at the bottom of the seedling, gently tickle roots loose. See picture on right.
4. Dig a hole slightly larger than the container that the seedling is in.
5. Place the plant in the hole with the roots down and bury it slightly deeper than it was before in the container, but leaving all leaves above ground (see the picture below).
6. Press soil gently around the roots.
7. Water the soil around of each seedling.

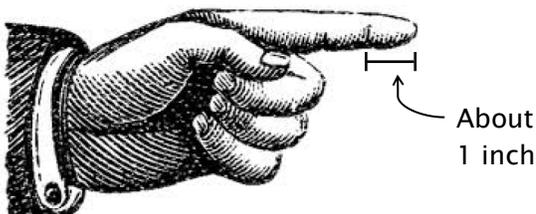
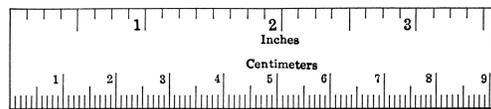


# Thinning Plants

When direct seeding plants in your Garden Bag you sow more seeds than you need because some won't germinate.

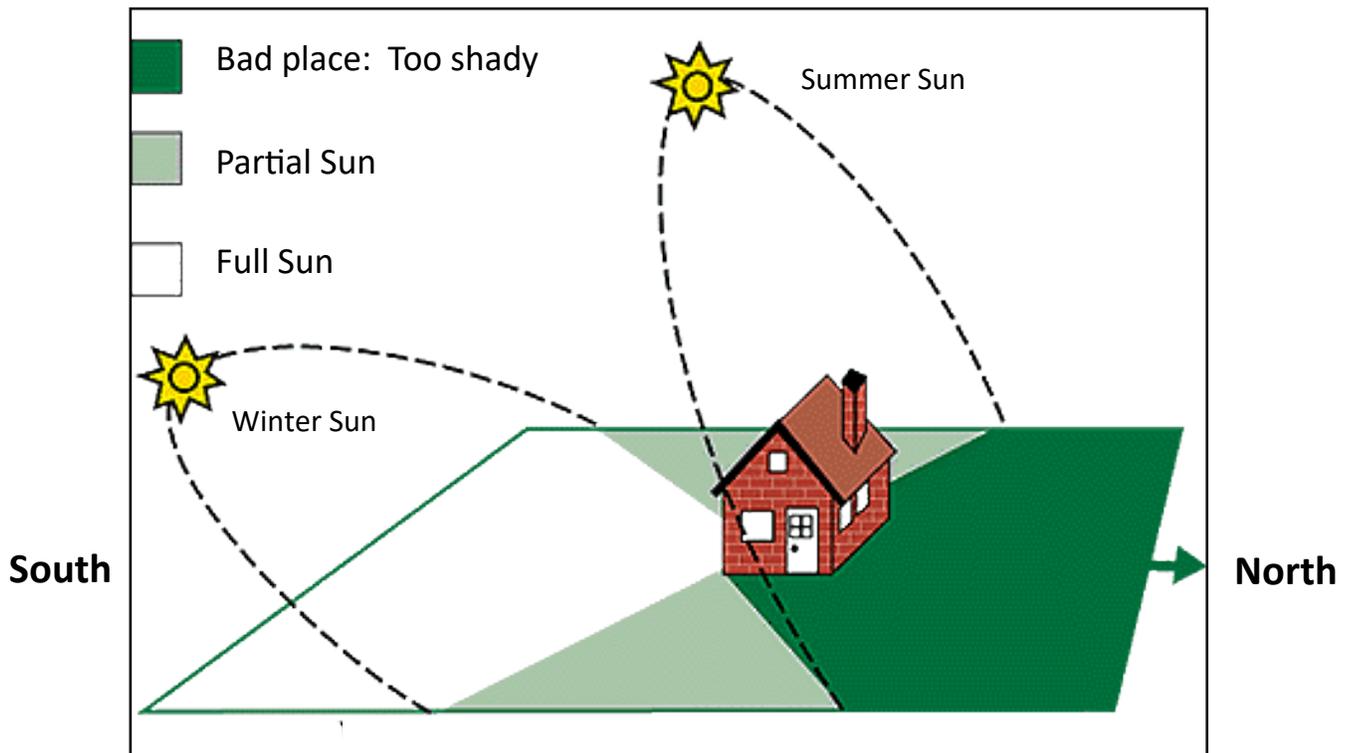


Once the seedlings sprout and grow two inches tall, you will 'thin' the plants by removing some plants to give others room (see guides for each plant for details). You can eat many of the baby plants you remove in a raw salad, including baby spinach, baby carrots, and baby beets.



**Tip:** Use your finger to help you measure the space between plants and their height

# Where to place your Garden Bag



The best place for your bag is:

- South of buildings, trees, or other things that would shade the bags or block rain from watering the bag
- A place that you walk by often: the more you see your Garden Bag, the more you will enjoy it!
- An area that gets sun most of the day (but partial shade is good for lettuce and spinach)
- Close to a source of water so you don't have to carry water far

**Full Sun**



Full sun means that the area gets at least 6 hours of direct sun each day. This could be split up throughout the day.

**Partial Sun**



Partial sun means that an area gets 4-6 hours of direct sun each day.

# Baby Lettuce

Earliest Planting: May 15th

Latest Planting: August 20th



Partial sun in hot weather



**Plant:** Scoop a cup of soil out of the bag. Evenly scatter 1/2 teaspoon of seeds across the surface of your **7 gallon bag** and sprinkle the cup of soil back over the seeds. Water with a spray bottle or watering-can with a sprinkle spout so that seeds do not wash out of place. Plants will poke above soil in 7-14 days.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun. If the temperature gets above 80 degrees, put your bag in a partially shaded area.

**Harvest:** Lettuce can be harvested twice during growth and will regrow. Simply cut the lettuce about an inch above the soil with scissors when the plants are at least 4 inches tall. Keep the soil moist and the lettuce will grow back. Try to time harvests so that you can use the fresh greens right away.

**Eat:** A quick rinse with cold water is all your lettuce will need to be ready to eat. Place between paper towels or let the rinsed lettuce sit on a hand towel for 5 minutes to dry. Lettuce is best eaten fresh and raw. Enjoy it in salads, or on sandwiches.

**Replant:** After fully harvesting the lettuce in your bag twice, pull out the plants and replant your bag to grow a second round of lettuce!.

## Nutrients

Good source of Vitamin A, Vitamin K, and Fiber

Lettuce leaves that are darker in color have more vitamins and minerals than the paler color varieties

## Summer Lettuce

Lettuce does not like hot days. During the middle of summer move your bag out of the direct sun into a partially shaded area.

Fun Fact: Lettuce is a member of the sunflower family

# Spinach

Earliest Planting: April 21<sup>st</sup>

Latest Planting: August 20<sup>th</sup>

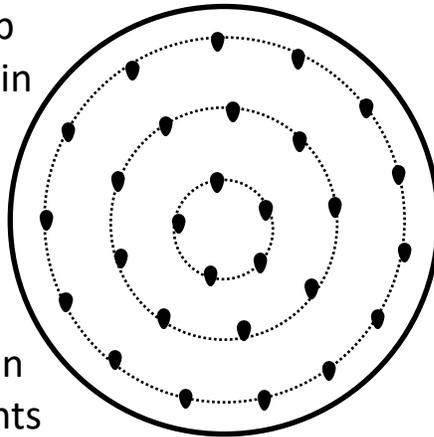


Partial sun in hot weather



**Plant:** Sow seeds 1/4 inch deep and about an 2-3 inches apart in circles 2-3 inches apart in a **7 gallon bag**.

**Thin:** When plants are 2 inches tall, thin seedlings to leave about 4-6 inches between plants. Wash the thinned plants and eat the fresh baby spinach!



**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun. If the temperature gets above 80 degrees, put your bag in a partially shaded area. Try to time harvests so that you can use the fresh greens right away.

**Harvest:** Begin harvesting bigger outer leaves once they are more than an inch long, leaving the smaller inner leaves to keep the plant alive. You can keep harvesting until you start to notice the spinach tasting bitter, then it is time to replant.

**Eat:** Spinach can be eaten cooked or raw. Enjoy it in salads or on sandwiches in its raw form. It's a great addition to eggs, pasta sauce, and soups.

**Replant:** Remove the plants and replant the bag in August for a fall harvest of spinach!

## Nutrients

Good source of Vitamin A, C, and K, Folate, Manganese, and Magnesium

## Bolting

Like Lettuce, spinach does not like direct sun during the summer. If the weather gets too hot spinach and lettuce will 'bolt'. This means that the plant will start to grow a thick flower stalk in the center of the plant to make seeds, and the spinach will get bitter.

**Fun Fact:** Spinach can be added to smoothies to make them healthier!

# Carrots

Earliest Planting: April 21st

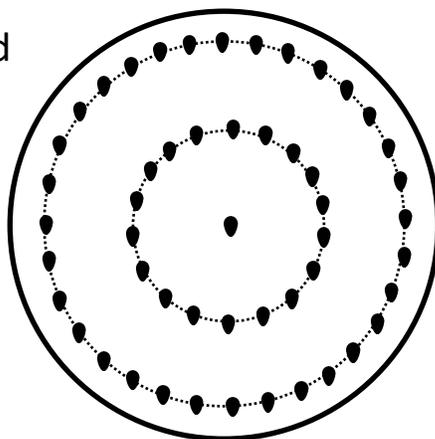
Latest Planting: August 10th



Full sun required



**Plant:** Sow seeds 1/4 inch deep and about 1 inch apart directly in the soil of a **7 gallon bag** in circles 4 inches apart (about 45-55 seeds per bag). Water well with a spray bottle or watering-can with a sprinkle spout so that seeds do not wash out of place. Keep moist until plants poke above soil in 7-21 days.



**Thin:** When plants are 2 inches tall, thin so there are 2 inches between each plant. Thinned plants can be eaten, greens and all!

**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun.

**Harvest:** Harvest every other carrot when greens are about 4-5 inches high. Pull the entire plant up by the greens. Let the rest of the carrots grow full-size and harvest as you want them.

**Store:** Snap the green leaves off the carrot. Brush off any soil and store unwashed in a plastic bag in the bottom drawer of your fridge. Wash before eating. Carrots will last this way for months.

**Eat:** Good raw or cooked. Shave or shred them into salads. Use a mixture of carrots, celery, and onions to start a soup! Shred carrots and add them to muffins, cakes, or bread.

## Nutrients

Carrots are a good source of vitamins A, C and K, potassium, and fiber.

## What to do with carrot greens

The leafy part of carrots (a.k.a. carrot tops or greens) are edible. You can chop them up and put them in a salad or blend them into a pesto spread for sandwiches. The greens have a lot of vitamin C.

# Tomato

Earliest Planting: May 15th

Latest Planting: June 1st



Full sun required



**Plant:** Plant one transplant per **10 gallon bag**. Plant tomato transplants so that the bottom leaves are at the level of the soil. Water well once transplanted, ensuring that the soil in the bag is well moisturized.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Try to give your bags a few cups of water every day. Place your bag in full sun. As your plant grows it will need some support. Use a sturdy stick, stuck deep into your bag and tie the main stem of your tomato plant to the stick using a piece of cloth. The cloth will prevent damage to the stem. Don't tie it too tight or the stem will get damaged. You can also place a metal tomato cage around your plant instead of using a stick.

**Harvest:** Start harvesting tomatoes as they turn bright red and are no longer hard to the touch. Green tomatoes will also ripen if you pick them and leave them at room temperature. Green tomatoes sometimes fall off your plant or can be picked early if you know you will not check on your bag in a while.

**Store:** Store fresh, ripe tomatoes at room temperature and use them as soon as possible! Avoid putting fresh tomatoes in the fridge.

**Eat:** Good raw in salads, on sandwiches, or chopped up on tacos or in burritos. Cook the tomatoes to create tasty sauces for pasta or pizza!

## Nutrients

Good source of Vitamins A, C, E, and K, Potassium and Manganese

## Tomato Issues

**Blight**—Blight on tomato plants looks like small dark spots on the leaves and stems. Avoid watering the leaves of your plant to avoid this problem. If you notice blight cut off infected parts and discard with household waste.

**Bottom end rot**— Causes the bottom end of the tomatoes to rot before they are ripe. Maintain even moisture in soil to prevent this. Adding crushed egg shells to your soil can help.

# Cherry Tomato

Earliest Planting: May 15th

Latest Planting: June



Full sun required



**Plant:** Plant one transplant per **10 gallon bag**. Plant tomato transplants so that the bottom leaves are at the level of the soil. Water well once transplanted, ensuring that the soil in the bag is well moisturized.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Try to give your bags a few cups of water every day. For a ten gallon bag, a few cups is plenty. Place your bag in full sun, on an elevated surface such as a railing or stool if possible. As your plant grows it will cascade down the sides of the bag. Try to avoid having the plant contact the ground.

**Harvest:** Start harvesting tomatoes as they turn bright red and are no longer hard to the touch. Green tomatoes will also ripen if you pick them and leave them at room temperature. Green tomatoes sometimes fall off your plant or can be picked early if you know you will not check on your bag in a while.

**Store:** Store fresh, ripe tomatoes at room temperature and use them as soon as possible! Avoid putting fresh tomatoes in the fridge.

**Eat:** Good raw in salads, on sandwiches, or chopped up on tacos or in burritos. Cook the tomatoes to create tasty sauces for pasta or pizza. Cherry tomatoes are good to snack on as they are, just rinse them off and pop them in your mouth!

## Nutrients

Good source of Vitamins A, C, E, and K, Potassium and Manganese

## Tomato Issues

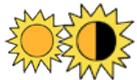
**Blight**—Blight on tomato plants looks like small dark spots on the leaves and stems. Avoid watering the leaves of your plant to avoid this problem. If you notice blight cut off infected parts and discard with household waste.

**Bottom end rot**— Causes the bottom end of the tomatoes to rot before they are ripe. Maintain even moisture in soil to prevent this. Adding crushed egg shells to your soil can help.

# Collards & Kale

Earliest Planting: April 1st indoors

Latest Planting: July 15th

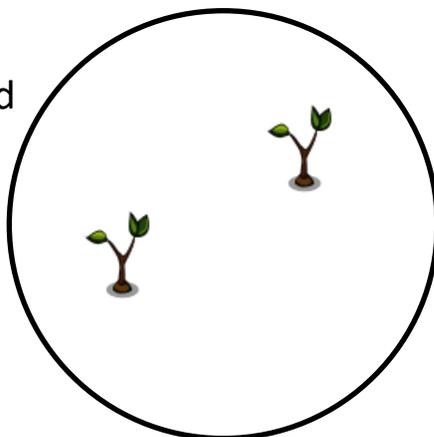


Partial to full sun required



**Plant:** Plant transplants 2 per **10 gallon bag**. Water well around each plant. Enough to moisten top layer of soil.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun.



**Harvest:** You can start harvesting in late summer or when bottom leaves are at least 6 inches long by cutting leaves at the stem from the bottom and gradually working your way up the stem as the plant produces more leaves. Plant will get taller with age and keep producing leaves for a month or so. If leaves get too old they will become bitter and tough. Try to time harvests so that you can use the fresh greens right away.

**Eat:** Kale and collards both good sautéed or added to soups. Collards are good braised. Kale can be eaten raw or in smoothies. A quick fun way to prepare kale is by making kale chips. Remove the stems, rub the leaves lightly with oil and salt and bake in a 350 degree oven until crispy.

**Replant:** If planted early in the year a second planting of kale can be planted and harvested before winter. Summer plantings can be harvested late into the fall, even after frosts.

## Nutrients

Good source of Vitamins A, C, calcium, fiber, folate (collards), potassium (kale), and manganese (kale).

## Freezing

Wash greens then roughly chop and submerge them in a pot of boiling water for three minutes. Remove from the boiling water and put the greens into a bowl of ice water for three minutes. Drain well, put in a plastic freezer bag, seal, and store in the freezer for up to 10 months.

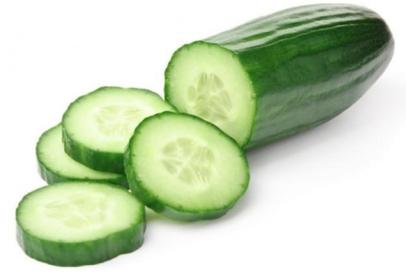
# Cucumbers

Earliest Planting: May 15th

Latest Planting: June



Full sun required



**Plant:** Sow seeds in pairs 1 inch deep. 2 pairs per **7 gallon bag**  
Water well to moisten.

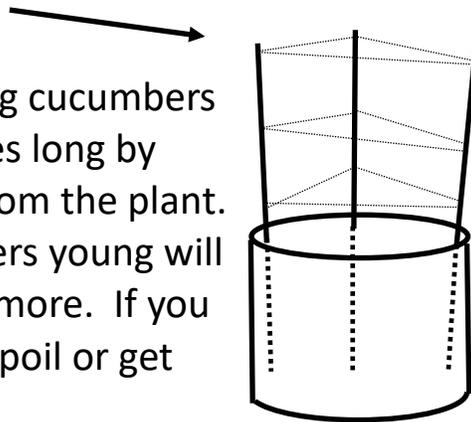
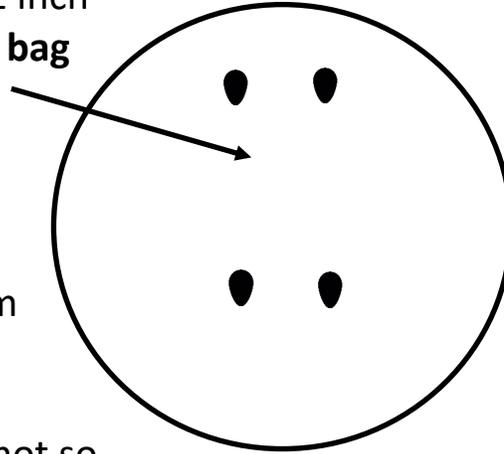
**Thin:** When plants are 2 inches tall, pull out the weakest looking plant from each pair.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun. Cucumbers are a climbing plant so they need a support structure. Place sticks into your bag and tie string between for a quick trellis system as seen in this diagram.

**Harvest:** Start harvesting cucumbers when they get 4-5 inches long by cutting the cucumber from the plant. Harvesting the cucumbers young will help the plant produce more. If you wait too long they can spoil or get bitter.

**Store:** Brush off any soil and store unwashed in a plastic bag in the bottom drawer of your fridge. Wash before eating.

**Eat:** Good raw. Eat in salads, as a dipper, or just straight of the plant!



## Nutrients

Cucumbers have a good amount of Vitamin K as well as some Magnesium, Potassium, and Manganese.

## Pickling

### Refrigerator Pickles

- 1 1/2 cups vinegar
- 1 1/2 cups water
- 2 tablespoons salt
- 8 garlic cloves, peeled
- 4 teaspoons dill seed
- 2 teaspoons peppercorn
- 1 teaspoon red chili flakes

Slice cucumbers, pack into jar, mix pickling ingredients, pour over cucumbers. Store in fridge. Enjoy after 24 hrs.

# Sugar Snap Peas

Earliest Planting: May 15th

Latest Planting: June 1st



Full sun required



**Plant:** Sow 3 seeds 1/2 inch deep evenly spaced around your **7 gallon bag**. Water the bag will so that the soil is moist. Peas will emerge in about 10 days.

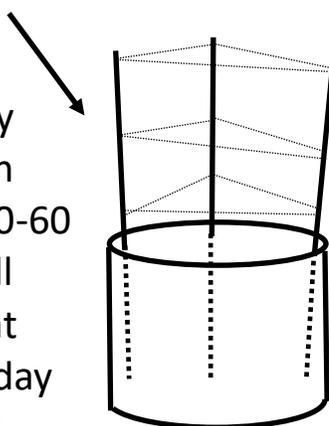
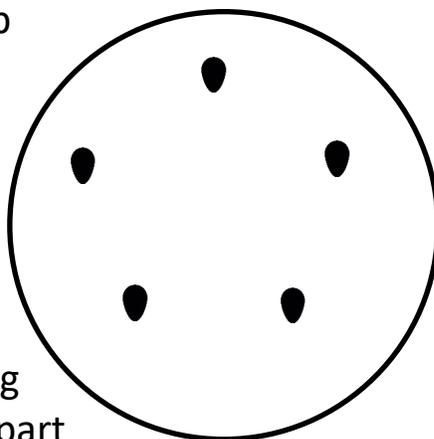
**Thin:** When plants are 2 inches tall, pull out the weakest looking plants leaving 3 plants, spaced apart if possible.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun. Sugar snap peas are a climbing plant so they need a support structure. Place sticks into your bag and tie string between for a quick trellis system as seen in this diagram

**Harvest:** Start harvesting snap peas by gently pulling them off the plant when they are 2-3 inches in length, about 50-60 days (2 months) after planting. Not all snap peas will be ready to be picked at once. Check your plants every other day and taste them to see if they are ripe!

**Store:** Brush off any soil and store unwashed in a plastic bag in the bottom drawer of your fridge.

**Eat:** Good raw or cooked. Eat the whole pod right off the plant for a snack or sauté them for a nice treat..



## Nutrients

Good source of Vitamins A, C, and K, Folate, Iron, Manganese, Protein, Dietary Fiber and many others!

## Freezing

Wash peas. Submerge peas a pot of boiling water for two minutes. Remove from the boiling water and put the peas into a bowl of ice water for three minutes. Drain well, put in a plastic freezer bag, seal, and store in the freezer for up to 10 months.

# Green Beans

Earliest Planting: May 15th

Latest Planting: July 20th



Full sun required



**Plant:** Sow 6 seeds 1 inch deep and about 4-6 inches apart directly in the soil of your **10 gallon bag**.

Water well. Plants will poke above soil in 8-10 days.

**Thin:** When plants are 2 inches tall, pull out the 2 weakest looking plants leaving 4 plants evenly spaced in your bag.

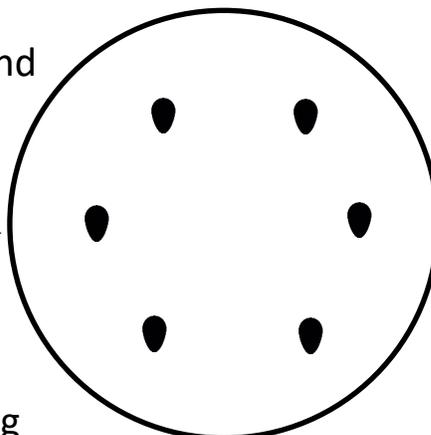
**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun.

**Harvest:** Start harvesting beans by gently pulling them off the plant when they are 3 inches in length, about 50-60 days (2 months) after planting. Not all beans will be ready to be picked at once, so check your plants every other day.

**Store:** Brush off any soil and store unwashed in a plastic bag in the bottom drawer of your fridge. Wash before eating.

**Eat:** Good raw or cooked.

**Replant:** After all the beans are harvested, you can pull out the old plants and start new seeds in the same bag.



## Nutrients

Good source of Potassium, Folic Acid, Vitamin C, Calcium & Fiber. Overcooking destroys nutrient value.

## Freezing

Wash beans and cut off ends. Submerge beans in a pot of boiling water for three minutes. Remove from the boiling water and put the beans into a bowl of ice water for three minutes. Drain well, put in a plastic freezer bag, seal, and store in the freezer for up to 10 months.

# Beets

Earliest Planting: May 15th

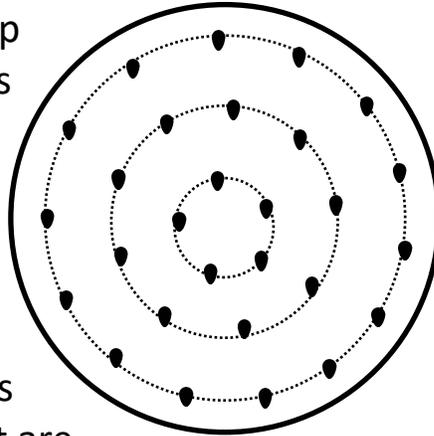
Latest Planting: July 20th



Full sun required



**Plant:** Sow seeds 1/2 inch deep every 2 inches in rows 3 inches apart in the soil of your **7 gallon bag**. Water well. Plants will poke above soil in 8-10 days.



**Thin:** When plants are 2 inches tall, pull out any seedlings that are touching each other.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Place your bag in full sun.

**Harvest:** Beets take about 2 months to mature. Pull them out of the ground greens and all when you want them. Harvest beets from different parts of your bag to give the rest of the beets more space.

**Store:** Brush off any soil and store unwashed in a plastic bag in the bottom drawer of your fridge. Wash before eating. Beets can last in the fridge like this for months. Rinse the greens and use as soon as possible.

**Eat:** Good raw or cooked. Shred beets into salads just like carrots. Cook beets by roasting or boiling. Beet greens can be sautéed and are great when mixed up with eggs.

## Nutrients

Good source of Vitamin C, Folate, Potassium, and Manganese.

## Greens

Beet greens should be separated from the beet when harvested. Never store beets with green attached. Greens can be stored in a plastic bag for a week or so.

# Herbs



Full sun required



**Parsley**



**Basil**



**Chives**



**Thyme**



**Oregano**

**Plant:** All herbs for Garden Bags can be planted from transplants into a **7 Gallon Bag**. Water the bag will so that the soil is moist.

**Care:** Keep soil moist but not so wet that the bag gets muddy. Thyme, chives, and oregano don't need as much water as basil or parsley. When your basil plant is about 8 inches tall pinch off the center shoot so that the plant will not flower. When chive plants start to produce flowers, pinch off the flowers to avoid seeding. Parsley, thyme, and oregano don't need any special care but should be pruned to keep the plant from getting too large.

**Harvest:** Parsley, thyme, basil and oregano can be harvested as needed by pinching off section of plant. Don't harvest more than 1/4 of the plant at a time. For chives harvest entire stalks by cutting them at the base.

**Store:** Only pick herbs as you need them. At the end of the season some herbs can be dried for future use. To dry herbs see box to the right. Avoid drying chives and basil as they contain too much moisture.

**Use:** All herbs can be enjoyed in cooked dishes as well as fresh salads to add flavor where dried herbs are called for. Basil can be used to make pesto. See recipe to the right.

## Pesto:

2 cups Packed basil leaves

1/2 cups Shredded cheese

2/3 cups olive oil

1/4 cups nuts

Pulse ingredients in food processor until smooth.

Enjoy on pasta and

## Drying Herbs

Use twist-ties to tie herbs in bundles by the stems so you can easily tighten the bundles when stems shrink as they dry. A warm, dry spot is best. Don't expose herbs to too much direct sunlight as this could cause them to bleach. Once herbs are dried they can be stored in jars at room temperature. Use them as you would use store-bought dried herbs.