

# WHICH CROPS CAN BE DIRECT SEEDED INTO YOUR GARDEN PLOT?

Growing vegetables from seed is the most economical way to start a garden. Some are definitely easier than others. Now is the time to shop for these seeds or wait until Spring to buy seedlings from your garden centers or if you are a true gardener start your own seedlings indoors. Here are the easier ones to sow direct from seed into your Garden Plot:

## LETTUCE:



Most lettuce are hardy cool-season crops that can be planted as early as the ground can be worked, but ideally when the outdoor temperature reaches a steady 55-60 degrees or provide them with protection from frost. Follow the instructions on the packet for depth and spacing.

There are five main types of lettuce:

- **Crisphead** - These are generally the most difficult types of lettuces to grow, mainly because they require a long, cool season to mature, and most of us simply don't have those conditions in our gardens. Crisphead varieties are ready to harvest approximately 95 days after sowing seed. In most of the U.S., to succeed in growing crispheads, you need to start the seed indoors in late winter to give them a good headstart.
- **Romaine** - Romaine lettuces also require a fairly long cool season; 70 to 75 days until harvest. Gardeners in areas with very short cool seasons should start the seeds indoors. However, romaines have a distinct advantage over crispheads in that you can harvest the outer leaves of the head as it continues to grow in the garden.
- **Butterhead** The most well-known butterhead lettuce is 'Boston Bibb.' Butterheads are known for their very smooth (buttery) texture. They form loose heads, which mature 55 to 75 days after sowing. If you can't possibly wait that long, you can harvest the outer leaves of butterheads, and new leaves will grow from the middle of the rosette.
- **Batavian** Batavians are probably the least well-known type of lettuce. They can be sown and harvested like looseleaf lettuces, but mature into crisp round heads fairly quickly, making them ideal for those gardeners who enjoy crisphead lettuces but have a short cool season. Batavians are ready to harvest (as heads) 55 to 60 days after sowing.
- **Looseleaf** Looseleaf lettuces are the easiest to grow. They can easily be sown and harvested within a few weeks as tasty baby lettuces. Looseleaf lettuces are harvested by picking or cutting leaves from the plant. New leaves will form, and, as long as you sow fresh seed every couple of weeks, they will provide you with lettuce for plenty of salads.

## BEETS:



Beets can be grown for both the roots and the greens, which are edible. They're very pretty in salads, and provide a bit of sweetness when mixed with other baby greens. Grow beets in loose soil, and keep them evenly moist; beets that are allowed to dry out often develop woody roots. Beets can be planted as soon as the soil can be worked in spring, and sown every two weeks or so throughout the season (especially if growing them for the greens rather than the roots.) Please note that each beet seed is actually a cluster of seeds, so you'll have to do some thinning when the greens are a couple inches long. Thin to approximately two inches apart.

## BEANS:



Whether you choose pole beans or bush beans, they are super-simple to grow. Plant them after soil has warmed to a steady 50 degrees (early March). Pole beans should be planted about six inches apart; bush beans can be planted three to four inches apart. You will need to provide a trellis if you plan to grow pole beans, which will reach six feet tall or more. Keep them evenly moist, and harvest the beans when they are thin and tender. Be sure to harvest regularly. Both bush and pole beans are prolific, and you may well end up with more than you can use. Luckily, beans freeze well!

## CARROTS:



Carrots are the number one source of a key nutrient for your senses: beta-carotene, which is what turns carrots bright orange. Your body converts some of this beta-carotene into Vitamin A, which is great for healthy skin, bones, teeth, and of course, vision. Whether you eat them raw or in a delicious carrot recipe, just 30 grams of this amazing vegetable will give you all the Vitamin A you need for an entire day. Plus, carrots are good for the digestion, with plenty of dietary fiber. Plant the seeds during the month of April.

Work the soil deeply. Remove all rocks and stones. A loose soil is very important. Add plenty of compost. Do not add too much nitrogen fertilizer as it results in "hairy" roots. Water deeply. Thinning seedlings is important to provide them with adequate space. Carrot varieties are largely categorized by their lengths. The short varieties come as small as two inches long and are as wide as they are long. These are the carrot of choice for gardeners who have clay or rocky soils, which restricts them from growing deeply. The longer varieties do best in rich, well worked loose soil rich in compost. The long, fat carrots are the most popular of home gardeners.

## CORN:



Corn is a warm season crop and needs warm temperatures to grow, develop ears, pollinate the ears and set the corn seeds after pollination from the tassels. It requires a long season, lots of sun, and rich soil. It is not a crop that transplants well so it's better to start the seed in the ground well after the last frost in spring after May 1st when the soil is above 60 degrees to germinate successfully. It is important to place them in a 4 or 5 foot square area about one foot apart rather than by long rows, as they are pollinated by wind. The tassels shed pollen that fall on the silk and a kernel of corn is born. Corn is a heavy feeder of nitrogen. Feed them liquid fish emulsion every two weeks when they are about 4" tall, which keeps the foliage deep green so it will not become deficient in nitrogen. Unlike other vegetables like tomatoes, peppers or squash, growing only three or four corn plants isn't feasible. If you meet the basic requirements of growing corn, you'll be rewarded with a bountiful harvest. Be sure to plant them in an area so they do not block the sun to other crops. There are many varieties and my favorite is Silver Queen or Supersweet Jubilee.

## CUCUMBERS:



Cultivated in India 3,000 years ago. They are rich in Vitamin C and a fat free source of potassium. Plant cucumber seeds directly into your garden plot once your soil temperature has warmed up to a minimum of 65 degrees (usually after April 15th to May 1st). If the soil temperature is not warm the seeds will not germinate properly and plants will fall prey to disease. You can choose bush or vining types, slicers or the pickling type. You'll need to provide a trellis for vining types, and be sure to give your cucumbers plenty of moisture, but mounded high with good drainage, because cukes that are allowed to dry out often develop bitter fruits. Be sure to provide mulch to keep soil evenly moist and control weeds. Pick them often and they will keep producing.

### Recommended Varieties:

**Marketmore** - developed at Cornell University. Great slicing cucumber, bitterfree and burpless with vines up to 6 ft. Harvest when they reach 9" to 11". One of the best disease resistance varieties that produces straight cukes.

**General Lee** - Another great uniform slicing cucumber with vigorous, robust healthy plants that will set lots of consistently straight, dark green fruit when picked at 8" to 9". Delicious in salads and disease resistance.

**Homemade Pickles** - For the best crunchy dill pickles, these are the best when harvested at 5" to 6". They are disease resistance and will yield armloads of solid crisp cucumbers that have 5 ft. vines.

**Agnes** - A prolific, crispy and tasty gherkin. Agnes has an excellent crunchy texture for snappy pickles and one of the best flavored cukes. They are perfect for pickling when they reach 3" long and 1" wide.

## PEAS:



Peas need cool weather to grow well, so they're an ideal spring or fall crop. You can select snow peas, snap peas, or shell peas, but they all have the same basic requirements: cool weather, full sun, trellis or other support to climb on, and kept evenly moist. Plant in spring as soon as the soil can be worked, which would be sometime in March. Don't forget to add a layer of mulch around the base to keep them cool because they do not like heat.

## RADISH:



Sow these anytime after the soil can be worked to enjoy in salads. Be sure to give them even moisture and good drainage, since inadequate moisture causes them to be fibrous, woody and will split. The greens are also edible, and, if harvested when they are about two inches long, provide a slightly peppery zing to salads and sandwiches. This is the easiest of all veggies to grow, especially by children as you can harvest them in 21 days from seed.

## SPINACH:



Spinach is rich in nutrients and antioxidants, perfect raw in salads or cooked in a huge variety of dishes. As a bonus, it's also easy to grow. Plant spinach in full sun to part shade, and water regularly. Fertilizing with fish emulsion every two weeks is also beneficial. It is best to harvest spinach young, when the leaves are about two to three inches long. To keep it from bolting in summer heat, try planting a heat-tolerant variety like 'Bloomsdale Long Standing.' As with lettuce, sow a fresh crop every few weeks.

## SWISS CHARD:



This is another green that grows well all summer in most gardens and can be grown from seed directly into your plot. Varieties such as 'Bright Lights' are just as beautiful as they are tasty. Chard does very well in containers as well as in garden beds. It can be eaten sauteed like spinach, and the stalks can be eaten raw like celery or used as a celery substitute in many dishes. Give chard even moisture and harvest the outer stalks regularly to keep your plant producing all summer long. Chard appreciates a dose of fish emulsion every two to three weeks and follow the directions on the seed packet on how deep to plant and spacing.

## WHAT TYPE OF MULCH IS BEST? PROS AND CONS

We thought it would be helpful to provide you with information on the pros and cons of using different mulches in the garden.

Over the past two years we have noticed an increase of field mice and rabbits in our garden. We have discovered that straw could be the culprit.

Rabbits like to munch on straw and it provides a suitable nests for them as well as for mice, which subsequently attracts snakes.

Another drawback in using straw is the weed seeds that it brings into the garden.

Please be cautious in bringing in straw to our garden area and use alternate solutions.

### Straw

Straw is the stem left over after oats, wheat, barley, etc are harvested and has little nutritional value. Straw can harbor many weed seeds.



**Pros:** Very few. It is inexpensive to use.

**Cons:** Can be messy and if used as a winter mulch can attract mice, voles, and slugs. Can be full of weed seeds and must be allowed to decompose for a year in order to kill off these weed seeds.

Also, ineffective on its own since it is mostly carbon. Because dry materials like straw, drain nitrogen from the soil to break the straw down, it should be mixed with grass clippings, manure, or compost to add nitrogen to minimize nitrogen loss in the soil.

### Alfalfa (Lucerne) Hay or Pea Straw

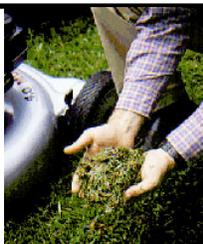


Both are great nutritious mulches. Alfalfa (lucerne) hay and pea straw (dried pea stalks) are both legumes, therefore high in nitrogen and trace minerals.

**Pros:** Both mulches offer minerals, trace elements, and other valuable nutrients that are stored in the plants and returned to the soil as they decompose. Plus when mixed into the soil, can improve soil structure. Neither seem to have the weed seed problems that straw has. Ideal for vegetable gardens, especially where their quick decay improves soil texture.

**Cons:** Can be expensive.

### Grass Clippings



Grass clippings from a **weed free & chemical free** lawn make a great feeding mulch, but use lightly. They are best when used mixed with other organic matter such as dry leaves.

**Pros:** High in nitrogen, but have little by way of fiber to improve soil structure. Can be combined with a rich carbon source such as leaves or untreated sawdust to provide the fiber needed to improve soil structure and form a more balanced food source. Used alone, they make a good feeding mulch.

**Cons:** If applied too thickly, grass clippings can decay into a slimy pulp, which can get very hot, and can burn plants. Best to sprinkle lightly, no more than 1 inch thick directly into the vegetable garden.

### Leaf Mulch (Also called Leaf Mould)



Leaves that have been allowed to rot slowly for about one year.

**Pros:** Good for moisture retention. Not as good as compost, but will provide humus to help retain nutrients and improve soil structure. Works best when used in conjunction with compost. Leaf mulch is rich in calcium and magnesium, which are great for healthy vegetables.

**Cons:** Make sure the leaves are fully composted or tilled into the soil to decompose. Simply putting chopped up leaves around your plants will not be helpful.



### Bark & Wood Chips

Great for covering soil. The advantage is that bark breaks down slowly and therefore doesn't need replenishing every year. The large size of the bark chips allows water to run off and into the soil. Soil can be enriched by placing a layer of cow or chicken manure or compost before covering with bark chips. Wood chips are derived from many different hardwood and softwood species. They are often available from municipalities or utility companies involved in pruning or clearing trees.

**Pros:** Good for mature plants. Decorative, and helps with moisture retention. Comes in many different sizes, shapes and colors.

**Cons:** Not good for young plants. It is best to add a layer of compost first, then add the decorative cover of bark. Bark will gradually break down and need to be reapplied every three years. Also, ask the bark supplier because some bark and wood products contain substances that inhibit plant growth, and should be left for several months in the weather to leach out toxins prior to using as a mulch. Bark and wood-chips, can develop nitrogen deficiency in plants, causing them to turn yellow. This is caused by bacteria taking nitrogen out of the soil to break down the organic matter. If using these types of mulches it is important to add nitrogen.

## WHAT TYPE OF MULCH IS BEST? PROS AND CONS

### Newspaper

Newspapers covered with a mulch of leaves mixed with compost, or fresh grass clippings. Paper should be no more than two to three layers thick and have holes punched in it to allow water through. It is best to wet the paper before laying it.



**Pros:** Weed-discouraging, moisture-conserving, and the newspaper decomposes on its own in a few months posing no problem for rototilling or digging. Mulching with newspapers takes far less time than would be spent in hoeing or tilling a garden for weed control, and only needs slightly more time than applying any of the more common mulches.

**Cons:** Ineffective on its own since it is mostly carbon. Works best when used in conjunction with a thick layer of leaves mixed with compost or fresh grass clippings to form a more balanced food source and to minimize temporary nitrogen loss in soils. Don't apply too thickly or water can't get to soil and paper won't decompose properly, unless it is being used to suppress grass and weeds in walking paths.

**How thick to apply:** Spread no more than two to three sheet layers of wet newspaper over the soil leaving three inch spaces around plants or seedlings. Make sure some holes are punched in the paper to allow water through. After that, spread 2 to 3 inches of grass with leaves, or compost over the paper.

### Pine Straw

Pine needles have a pleasing appearance and acidify the soil around acid-loving vegetables, such as tomatoes, cucumbers, squash, sweet corn, potatoes, carrots, peas, parsley, radish, celery, blueberries and strawberries.



**Pros:** Pine needles decompose slowly, are resistant to compaction, and are easy to work with. They provide excellent protection around newly set or tender ornamental plants.

**Cons:** If left on year-round, pine needles should be renewed annually. There have been concerns raised about the effects on soil erosion and runoff in watersheds where pine straw is harvested. Research was conducted to determine whether such concerns are justified, and evaluate harvesting practices to minimize any problems found. This study showed that pine straw harvesting did increase runoff, soil erosion, and some nutrient losses; but these effects were decreased by less-frequent harvesting schedules.

### Compost

Compost is simply well rotted organic matter that enriches the soil, improves its structure and drainage, and provides plants with nutrients that promote strong, healthy growth for abundant flowers, fruits, and vegetables.



**Pros:** Filled with organic material, minerals, beneficial micro-organisms, as well as trace elements. It is a great fertilizer and soil conditioner.

Compost is the best mulch you can use as it has plenty of nutrients, good evaporation control, and quickly improves soil texture and water-holding capabilities. It is also a great worm encourager, and it is easy to make your own.

**Cons:** None

### Black Plastic Vs. Landscape Fabric

Black plastic has been replaced with landscape fabrics over the years for good reason. Heavy black plastic that is laid down first, with mulch then added on top, sets up all kinds of problems. While it provides good weed suppression, the soil is starved for oxygen and light and becomes sour and causes root die-back. Plus, the slippery surface of black plastic causes the mulch to slide off showing the ugly black surface.



Landscape fabric is better than plastic because it lets air and moisture through. If using an irrigation system it is best to have drip irrigation under the landscape fabric.

#### Pros:

Black plastic: None unless being used for solarization of the soil to kill grass, but will need to be removed so as not to create mold and sour soil.

Landscape Fabric: Lets air and water through. Good weed suppression.

**Cons:** Plastic neither adds or allows nutrients into the soil to improve soil structure or health. Although landscape fabrics are a great advance in mulching technology, they don't prevent all weed growth as some can grow right through the landscape fabric, so keep it heavily mulched.