



Survival Garden Plants & Seeds

GENERAL GUIDELINES

Selecting Seeds

- Potatoes and winter squash produce the most calories in the least amount of space.
- Be sure to check the Latin names of the plants/seeds before ordering. Seed catalogs can be a good reference to the Latin names of plants.
- Choose only open-pollinated or heirloom seeds because the offspring of these plants will breed true to the parent plant. (The offspring of hybrid seeds/ plants often do not breed true to the parent plant.)
- Plan ahead - purchase seeds for the next several years NOW due to possible/pending supply chain problems.
- Vegetable Gardening for Beginners

Buying Seeds - Choose non-hybrid, heirloom seeds from reputable companies such as the following. Later in this document, the sellers below are referenced by their respective numbers in the list below:

1. Adaptive Seeds <https://www.adaptiveseeds.com/>
2. Fedco Seeds <https://fedcoseeds.com/>
3. Nichols Garden Nursery <https://nicholsgardennursery.com/>
4. Pinetree Garden Seeds <https://www.superseeds.com/collections/heirloom-seeds>
5. Rareseeds Baker Creek <https://www.rareseeds.com/>
6. Seed Savers Exchange <https://seedsavers.org/> - a not for profit organization dedicated to the exchange and sale of hard to find seeds.
The Community Seed Network <https://www.communityseednetwork.org/> is affiliated with the Seed Savers Exchange. It connects and supports community seed initiatives by providing resources, information, and a platform for networking. You may be able to locate seed savers near you on their website.
7. Seed Treasures <https://seedtreasures.com/>
8. Southern Exposure Seed Exchange <https://www.southernexposure.com/>
9. St. Clare Heirloom Seeds <https://www.stclareseeds.com/garden-help/>
10. Territorial Seed <https://territorialseed.com/>
11. Urban Farmer <https://www.ufseeds.com/>
12. Victory Seed Company <https://victoryseeds.com/>

Growing Seeds

- To assess the viability/germination rate of your seeds, place a few of them in a plastic bag on a damp paper towel for a few days. (Do not assume old seed is not viable.)

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- To prevent plants of the same species from crossbreeding, plant varieties several/many yards apart in your garden. Here is a seed saving chart with recommendations for isolation distances as well as the typical seed viability for each plant:
<https://borrowsavesharedotcom.wordpress.com/wpcontent/uploads/2015/05/seedsavingchart.pdf>
- To prevent crossing the first year for biennial plants, you do not need to isolate the plants from each other. The second year, allow only one of the varieties to go to seed and collect those seeds. The third year, allow the other variety to go to seed and collect those seeds.
- Please consider printing out these vegetable-growing guides from Southern Exposure Seed Exchange.

Saving & Storing Seeds

- Be careful where you harvest your seeds; avoid contaminants, including dumping areas and along the roadside.
- Be sure to save your seeds for upcoming years! We recommend these seed saving books: *Seed to Seed: Seed Saving and Growing Techniques for Vegetable Gardeners* by Suzanne Ashworth, 1988; and *The New Seed-Starters Handbook* by Nancy Bubel, 2002.
- Seeds should be stored in cool, dark, and dry areas. You can place them in the refrigerator or freezer in a sealed jar or metal case with a desiccant such as silica gel. A tablespoon of white rice or powdered milk rolled in tissue acts as a desiccant; replace every six months or so. Do not vacuum seal seeds because they need oxygen to survive.
- Please consider printing out these seed-saving guides from Southern Exposure Seed Exchange.

Squash - Summer & Winter



Curcurbita pepo- they do not store for long: zucchini, yellow (straight and crook neck), patty pan, acorn, and some pumpkins.

Zucchini mutabile is resistant to powdery mildew.

Curcurbita maxima - long keepers, some pumpkins (such as sweet meat). Large in size.

Pepo and maxima are susceptible to squash bugs and vine borers.

Curcurbita moschata - longest keepers- butternut, cheese, cinderella pumpkin, Pennsylvania Dutch crookneck (which have been known to be stored at room temperature for up to 17 months.). More pest-resistant than pepo and maxima.

The different species do not crossbreed with each other, but varieties within the same species will cross readily.

Suggested seed sellers: 1, 6, others.



Survival Garden Plants & Seeds *(continued)*

Cucumbers



Consider short season, which benefit from reduced exposure to pest problems, and pickling cucumbers, which are shorter, more tender, and more prolific than larger ones. Market more is also good.

Plant varieties half a mile apart or hand pollinate because different varieties will cross-pollinate. It is easiest to grow only one variety a year, especially in a grid down situation.

Cucumbers require consistent watering. You can stagger the planting of small crops so you will have produce for several months.

Pick all ripe cucumbers because if one of them ages out (turns yellow/ matures) it signals the plant to die back.

To save seeds, let a cucumber turn yellow, remove the seeds, and ferment them in water for one to three days. Then rinse and dry thoroughly before storing.

Cucumbers have a high water content and are useful for keeping yourself hydrated while working outdoors. They also function to cleanse the kidneys.

Beets - Red, Fodder, and Sugar



Beta vulgaris – There are four kinds, all biennials; they take two years to generate seeds. Harvest one leaf from each plant at a time. Red garden beet – a great choice; use the leaves and roots.

Mangel beet – use leaves and roots as animal fodder. Large: 2-10 lb.

Sugar beet - make molasses or peel, dice, bake, dehydrate and powder. (Making white sugar is a waste of resources.)

Harvest, store in root cellar. Leaves can be dehydrated or canned.

Save a LOT of seeds when harvesting – five to ten times more than you

think you may need. Plants are subject to pests and weather conditions, so you may need to start over during the season. You can also share or barter the seeds.

Suggested seed sellers: 2, 4, 5 (mangel), 8, 11.

Brassicas -Turnips, Collards, Rutabagas, Cabbage



Brassica rapa -Turnips

Brassica oleracea – Collards: easy to grow. Green Glaze collards have a natural waxy coating that protect them from pests, heat and cold.

Some may survive a harsh winter. Plant tansy nearby to keep rabbits out of collards, but do not let the tansy go to seed because it is invasive.

Brassica napus - Rutabaga

Brassica oleracea – Cabbage: outer leaves can be eaten, taste like collard greens.

We recommend you grow only one variety from each species; if you have three different species they will not cross-pollinate. Within species, they will crossbreed.

You can eat the leaves of Brassicas that are grown for their roots (turnips, rutabagas, radishes).

When boiling, thoroughly cook, then pour off water, especially if you have hypothyroidism.

Brassicas are biennials so seeds can be saved every two years.

Other Brassica oleracea varieties include brussels sprouts, cauliflower, broccoli, & some kale.



Survival Garden Plants & Seeds *(continued)*

Beans – Dry and Green; Peas – Black-Eyed



Note: beans are not very productive for the amount of space required compared to potatoes and squash. If possible, stock up on dried beans, which are good sources of protein, especially black-eyed peas, Jacob's cattle beans, and garbanzo beans (which are also high in fat.) Phaseolus vulgaris - Green beans, pole beans (more susceptible to insects), dry beans. Wax beans are not as prolific. Do not eat very many raw ones as they are medium severity toxic, especially kidney

beans, contain lectin.

Vigna unguiculata - Black-eyed peas (cow peas) are the most productive. Will not cross with other beans.

Good Mother Stallard beans are recommended for their flavor and texture.

Provider bush beans are the highest yielder.

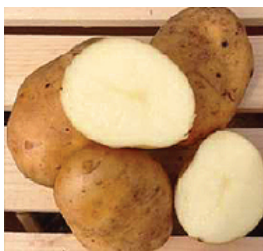
Beans are self-pollinating; plant them at least 12 -20' feet apart per species.

To save seeds, leave beans on their stems until they turn brown and dry. Pick the pods and remove the cases, then leave the beans out to dry thoroughly for a few days before storing.

Beans are mildly toxic when raw because of phytic acid, which is reduced when the beans are soaked 12-24 hours with a little vinegar, rinsed, and cooked. (Do not put baking soda in soaking water.)

RoseRed Homestead on YouTube offers a tutorial on how to make fast beans, which are precooked, then dehydrated and stored for fast reconstitution later.

Potatoes and Sweet Potatoes



Potatoes and winter squash produce the most calories in the least amount of space.

Red potatoes - do not keep as well as white and produce earlier; could harvest midsummer to eat fresh. Reds that store fairly well are Chieftain and Red Maria.

White potatoes – Kennebec are great keepers and very forgiving (can grow well in several soil types); Russets need very fertile soil. Harvest

white potatoes in Autumn to store.

Yellow -Yukon Gold is not a heavy yielder.

Cut a piece of potato with one to three eyes and let heal/dry for one or two days before planting. Be sure to label rows with the variety.

Fedco's catalog features a good potato growing chart.

Sweet potatoes – grow well in warmer climates because they require heat and a longer growing season. Sweet potato leaves are edible, but other types of potato leaves are poisonous.

Suggested seed sellers: 2, 7, 8, 11, 12.



Survival Garden Plants & Seeds *(continued)*

Tomatoes & Peppers



Tomatoes and peppers are perennials in frost free areas. In northern climates they are treated as annuals. Plants can be overwintered if you dig up the plants. Plant them in pots and bring them indoors. Peppers cross easily within species; tomatoes, less so.

Tomatoes - *Lycopersicon lycopersicum* – annual and self-pollinating but may cross within species. Fermenting tomato seeds after harvesting gets rid of bacteria/ blight, which is especially problematic in very wet climates.

Plant tomato varieties 20-25' apart with other tall plants in between, away from potatoes because they are prone to the same diseases.

Peppers – several species; will not cross with other species but will cross within species.

Capsicum annuum – paprika, chili pepper, red pepper, sweet pepper, jalapeño, serrano, cayenne, Italian bullhorn, bell pepper; will cross with each other.

Capsicum baccatum – aji peppers - register 30,000 to 50,000 on the Scoville heat unit scale; will cross with each other.

Capsicum chinense – habanero, tabasco, ghost peppers (will cross with each other and can cross with *Capsicum frutescens*). Can be extremely high on the Scoville heat unit scale.

If you grow a sweet pepper and another *Capsicum annuum* such as cayenne (for medicinal purposes), be sure to bag the flowers and let fruit develop within the bag. Be sure to identify the specific flower and fruit to harvest the pure species.

To control disease, soak pepper seeds in warm water for 25 minutes, then rinse in cool water and dry thoroughly. Be sure to plant hot and sweet peppers of the same species at least 100 feet apart; they can cross and the plant with the higher heat level dominates the offspring. If it is impossible to isolate them, then bag individual flowers on the plants meant for seed production.

For cayenne tinctures, we recommend Carolina and Charleston Hot peppers from source 7. Be sure to discard any cheesecloth used in tincturing.



Carrots



Daucus carota is a biennial that will cross with Queen Anne's lace as well as with all other carrot varieties. Best types suitable for heavy or clay soils are Danvers 126, Danvers half long, Chateau Red Core, and Oxheart (which is shaped like a turnip).

Plant only one variety of carrots on your property and prevent any Queen Anne's Lace on your property from blooming. You can bag the flowers on the carrots, or just not worry about it. If your carrot species crosses with Queen Anne's Lace and reverts to a wild form, you may end up with a plant better adapted to your climate. You will know the carrot plant has crossed because the roots will tend to be white rather than orange.



Survival Garden Plants & Seeds *(continued)*

Carrots are insect-pollinated, and it is difficult to save seeds, but you can start saving them as soon as you see them. We recommend that you buy 4-8 ounces of seeds, which will keep for four or more years when stored carefully.

To start carrot seeds indoors, cut open a milk carton (or use a clear container with lid) and add seed starting or potting mix. Plant seeds ¼" deep, water, and set under grow lights. Transplant when the roots are about 2" long; try not to let the roots intermingle.

See the CORAC video on Seeds, Seedlings & Gardening for tips on winter sowing.

Carrots are rich in Vitamin A, which humans need to consume at least every other day.

Livestock also love carrots. Carrot greens are edible and can be cooked. For the greatest nutritional value, cook and serve carrot greens (and other greens) with fat or oil. Store carrots for 2-3 months in a root cellar, or you can dehydrate, or pressure can them. Carrots will sometimes overwinter. You can also mulch them in the garden.

Queen Anne's Lace grows in the wild alongside grass and other weeds, and their roots will therefore be tangled, small and hard to dig out, but it can be foraged and is edible for humans and animals.

Caution: Poison hemlock looks a lot like Queen Anne's Lace. Queen Anne's Lace has little hairs on the stem, whereas poison hemlock has smooth stems with purple spots. To further distinguish the two, put on a pair of disposable gloves and crush the leaves. Queen Anne's Lace leaves smell like carrots; poison hemlock leaves stink. Put on disposable gloves and pull up any poison hemlock seen on your property immediately, and place in a sealed plastic bag in your garbage bin. Do not mulch with poison hemlock or let it go to seed because it is very invasive.



Horseradish



Horseradish is a hearty perennial Brassica. It will not cross with other brassicas. Horseradish does produce seeds, but it is usually propagated by root cuttings. Do not till over horseradish plants or it will grow everywhere. Contain it when growing or it will choke out your other plants. Horseradish is an ingredient in fire cider, a condiment, and an herbal medicine. It is known to boost metabolism but should be avoided by those with low thyroid function. Medicinally it is used raw.

Garlic



Soft neck garlic does not keep as well as hard neck garlic and does not have top sets.

Hard neck garlic produces top sets and is a better keeper: up to eight or ten months. Philips hard neck garlic competes well with weeds.

Plant garlic in October. If using a clove, place it root side down four or five inches deep. Depending on your agricultural zone, you will get green slips before winter.



Survival Garden Plants & Seeds *(continued)*

You can also plant bulbils, or topsets, from hard neck garlic. Scapes form at the top of plants then turn brown, setting out round bulbils. The bulbils can be harvested in late summer. Set them aside until October, then place in the ground, root side down, about an inch deep. Pat them then cover with straw. They should be spaced 6-8 inches apart.

Bulbs can be left in the ground to divide for a perennial type of growth.

Scapes can be cut off and hung on a fence or other support. The bulbils will fall on the ground and the garlic will grow wild underneath, much like a walking onion would.

Bulbils will keep several months in storage if you do not plant them in the fall.

Scapes are milder in flavor than garlic cloves and are good for pesto. You can also use the leaves of soft neck garlic in pesto.

Onions - Egyptian Walking, Welsh, Potato, Leeks, and Chives



The listed onions are perennials. The only ones we do not recommend medicinally are leeks because they are milder than the others (although they are used medicinally in Asia.) These are different species, so you do not have to worry about them crossing.

You can grow several varieties to have onion plants throughout the season.

Egyptian walking onion stalks fall over and the bulbils root where they land. They do not set seed. You can harvest the leaves and bulbils of the side plants.

Potato onions – To grow, put one in the ground and others will grow nearby. They do set seed. and are really good keepers.

Welsh/ Japanese/ Bunching/ Green onions do set seed. You can harvest the leaves and bulbils of side plants.

Leeks do set seed; harvest late in fall. To have leeks perennially, grow winter leeks rather than summer leeks (which are not winter hardy). American Flag and Giant Musselburgh are two hardy winter leek varieties.

Chives are an onion grown for its leaves. Start them in March or April and then harvest spring into fall.

Storebought onions are labor intensive to grow, and you should choose good keeping onions such as Yellow Globe, Yellow Sweet Spanish, White Sweet Spanish, Red Bull, and Red Creole.

Yellow of Parma, *Clear Dawn*, and *Dakota Tears* are good, strong medicinal onions to slice and place on feet.

Suggested seed sellers: 2, 6, others.

Saving seeds with onions requires a lot of patience. The bulbs have to be two years old to set seeds. You can plant seeds in containers in January under lights. They will get leggy, so trim the top off so the plant is only 2". Every time you cut the top off the onion plant gets stronger. Plant onions outside in a trench 2" deep, cover with soil, then add a li le more as the plants grow. Keep some of the healthy dry onions for seed.

It takes 2 years to get seed. Cover the flowers as soon as they bloom in organza bags (about 3-1/2 x 4) to prevent cross pollinating, keep the seeds together and make them easier to harvest.



Survival Garden Plants & Seeds *(continued)*

Remove the leaves and make sure the onions are very dry before storing in bags made of netting at about 60 degrees in a root cellar or other cool, dry location, The mesh/ net produce bags from Fedco will hold 10 lbs. of onions.

WEEDS & HERBS

Please refer to the following for more information:

- **Mick's Spring Diary** - <https://corac.co/2023/05/19/micks-spring-foraging-diary/>
- **Mick's Summer Diary** - <https://corac.co/2023/07/18/micks-early-summer-foraging-diary/>

Stinging Nettle



Stinging nettle is an excellent anti-inflammatory. It can be tinctured for best medicinal value and long term storage. It can also be dried for tea, or cooked and eaten as a vegetable.

Lambs Quarters



Chenopodium album can be grown and consumed instead of spinach. Keep cutting it back and use the leaves. It has a long harvest season.

Pigweed



Pigweed is a species of edible flowering plant that can be cooked as a substitute for spinach in certain recipes as a cooked 'cut and come again' green vegetable. Related species can cross. Amaranthus retroflexus - redroot pigweed - is one type.

Callaloo has green and red-leafed varieties and is extremely popular in the Caribbean.

You can let pigweed self-seed, and it will come back every year.

We recommend that you identify where Pigweed, Lambs Quarters and other local edible plants are growing near your home. Be sure to let some of these greens go to seed for next year. Caution: Do not confuse pigweed with black nightshade, which has glossy leaves, white flowers, and white roots and will make you sick.



Survival Garden Plants & Seeds *(continued)*

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Purslane



Portulaca oleracea

Please refer to the following for more information:

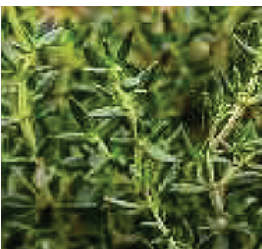
- **Mick's Spring Diary**
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Oregano



Origanum hirtum (also called Origanum vulgare hirtum and Origanum heracleoticum) is a white-flowered perennial that can be grown in zones 4-9 for culinary use. It is easy to grow in a pot and bring indoors for overwintering. Do not let it go to flower. Keep cutting the leaves, then dehydrate and save them for winter use. Propagation is by plant division. Origanum vulgare – purple-flowered, is hardy in zones 5-9 but can be brought indoors in a pot to overwinter, or you can start it in a container and leave it there. Does not have the expected oregano flavor. You may want to grow both varieties because medicinal oregano does not taste like culinary oregano. Oregano also sends out roots to propagate so do not allow anywhere near each other. They will intermingle, and they might cross-pollinate if the culinary oregano is allowed to flower.

Thyme



Please refer to the following for more information:

- **Mick's Spring Diary**
<https://corac.co/2023/05/19/micks-spring-foraging-diary/>
- **Mick's Summer Diary**
<https://corac.co/2023/07/18/micks-early-summer-foraging-diary/>



Survival Garden Plants & Seeds *(continued)*

Basil



Ocimum africanum -Temperate tulsii (medicinal basil) does not taste like Ocimum basilicum – culinary basil which happens to be useful for nausea and vomiting. Please refer to the following for more information:

- **Mick's Summer Diary**

<https://corac.co/2023/07/18/micks-early-summer-foraging-diary/>

Culinary basil and medicinal basil may be able to cross, so you can plant them in alternate years when growing, or if you do grow both in the same year, only

let one variety go to seed each year;

