



Survival Seed Instructions

Instructions for each seed variety are included on the packets. The following provides general guidance for optimal success with certain vegetables. Specific planting times are not included, as climates vary significantly. The best approach is to reference recommended germination temperatures and harvest times on each packet. Ensure temperatures are suitable for both germination and the period leading up to and during harvest. Most states maintain agricultural extension websites with specific planting schedules by region. In many climates, certain seeds should be started indoors 6-8 weeks before the last expected frost.

Peppers and Tomatoes

Peppers and tomatoes belong to the same family and have very similar growing requirements. The primary difference is that tomato plants—most of which are indeterminate—require support such as a tomato cage.

Tomatoes should be planted when temperatures are between 65-85°F; peppers between 75-95°F. Start seeds in starter pots with premium potting soil, or in a large pot intended as the permanent container. Plant seeds $\frac{1}{4}$ inch deep. Place in full sun and keep soil moist but not wet. Seeds typically sprout in 1-2 weeks. Once sprouted, continue to keep soil moist but not wet and transplant to the desired location. Peppers can live 1.5-3 years; indeterminate tomatoes can survive multiple seasons provided there is no hard freeze. Maintain full sun.

Use premium potting soil when repotting, or peat moss and organic compost when planting in the ground. Fertilize with a vegetable fertilizer.

One of the most important factors for pepper and tomato success is calcium. Calcium produces larger, healthier plants and fruit while providing disease resistance. Spent eggshells can be used but take time to break down. Garden gypsum is preferred because it provides calcium without affecting soil pH—important since peppers prefer slightly acidic soil. Espoma Organic Garden Gypsum is recommended and available online or at most garden centers. It is suitable for all peppers (sweet or hot) and tomatoes.

Never plant peppers or tomatoes where tomatoes, peppers, eggplant, or potatoes have grown in the previous three years. All belong to the nightshade family and share susceptibility to the same diseases and nutritional requirements. Planting in the same area can expose plants to disease buildup in the soil and deplete specific nutrients these plants require. Crop rotation is recommended for all vegetables as a general practice.

Dwarf Moringa

Ideal temperatures are between 70-90°F for good germination. Seeds can be started indoors under a grow light or in a very bright window. Sow seeds in starter pots with premium potting soil. Ensure pots have good drainage. Plant seeds $\frac{1}{4}$ inch deep. Keep soil moist but not wet—moringa does not tolerate overwatering, but should not be allowed to dry out completely. Place in full sun. Seeds typically sprout in 1-3 weeks; stragglers may appear later.

As a dwarf variety, this plant can be kept permanently in a pot, reaching a maximum height of 6 feet. If left untrimmed, it will grow as a single tall branch with leaves concentrated at the top. Begin trimming when the plant reaches 2-4 feet tall. Each trim point will split into two branches, creating a bushy plant with greater leaf yield. All parts of the plant are edible (leaves, stems, and seeds) except the roots.

Continue repotting as the plant grows until reaching a 3-gallon pot or larger. Larger pots produce happier plants. Moringa prefers temperatures between 70-95°F. Plants can tolerate a light frost of very short duration, but should be brought indoors when temperatures drop below 60°F. Temperatures below 70°F may cause some leaf yellowing. In most climates, plants can remain outdoors during summer and portions of spring and autumn. When temperatures fall below 60-70°F, bring plants indoors or keep in a greenhouse.

Moringa is extraordinarily versatile in recipes—fresh in salads or dried leaves added to baked goods. With an exceptional concentration of vitamins, minerals, and protein, it is one of the most nutritionally complete plants available.

Vining and Trailing Vegetables

Most vining or trailing fruits and vegetables can be trellised, including cucumbers, watermelon, zucchini, and squash. Trellising is not mandatory but is recommended in hot or humid climates to prevent powdery mildew from ground contact.

Cattle panels bent to shape are commonly used for trellising. Even large vegetables such as squash and melons can be supported—create a cradle from pantyhose when fruit appears. Peas and beans also trellis well. Some included varieties are bush types that do not require trellising; this will be noted on the packet.

Root Vegetables

Record planting dates for root vegetables. Determining whether a carrot, beet, or radish has reached harvest size is difficult without pulling it—and once pulled, it cannot be replanted. Tracking planting dates ensures harvest at optimal size.

Temperature Preferences by Vegetable

Cool Weather Vegetables: Brussels sprouts (tolerates light frost), lettuce, spinach, quinoa, moringa, broccoli, cabbage

Warm Weather Vegetables: Melons, tomatoes, peppers, cucumbers, okra, eggplant, corn, black-eyed peas

Remaining varieties can generally be planted in either warm or cool weather.

Mylar Bag and Oxygen Pack

The mylar bag and oxygen pack can maintain seed viability for up to 25 years. Shelf life varies by species: peanuts have the shortest viability due to fat content and should be planted promptly. Turnips and radishes typically last 5 years; beans have been documented viable after 100 years.

The enemies of seed storage are light, moisture, warmth, and oxygen. The mylar bag blocks light; the oxygen pack removes oxygen; both help exclude moisture. Seeds may remain viable even longer under these conditions.

The oxygen pack will eventually become exhausted and should be replaced annually, or every six months if the bag is opened frequently. When resealing, remove as much air as possible—press the bag against the midsection and push air from bottom to top, or seal leaving room for a straw, extract air, and close quickly.

Store the bag in a cool, dark, dry location such as a basement or consistently cool area. Replacement oxygen packs are available from Amazon and other online retailers. They are also useful for bean and rice storage.

Always allow harvested seeds to dry completely before storage—a paper plate works well and prevents seeds from sticking.

Sealing the Mylar Bag

After inspecting seeds, seal the mylar bag using a clothing iron or flat iron on low setting. Run the iron gently across the top edge until sealed. When ready to plant additional seeds, cut the top of the bag and reseal. Seal only the very top portion, as some material is lost with each opening. The bag may eventually require replacement; replacements are available from online retailers.

Planting Methods

Raised Bed, Container, or In-Ground

Some vegetables require significant space (such as corn and melons) and are best planted in the ground or raised beds.

Container Planting

Most plants prefer premium potting soil. Quality soil is essential for healthy plants. Peat moss, organic compost, and perlite are optimal media. Peat moss lowers soil pH, which most plants prefer. Organic compost provides nutrients. Perlite promotes root growth.

Peat moss is most economical when purchased in large bales (Lambert is one brand). It is packed tightly for transport and will be very dry. Break up peat moss over a bucket of water and mix by hand until fully saturated.

Starter Pot Planting for Ground Transfer

Wet potting soil before planting so seeds are not disturbed by heavy watering afterward. Plant at the directed depth and place in full sun or under grow lights, depending on temperature at planting time.

Direct Sow Outdoor Planting

Soil quality is the most important factor in successful growing. Peat moss and organic compost are essential. Avoid big-box store "garden soils," which often contain reforested wood (mulch) and do not support healthy plant growth.

Clear the planting area of weeds and dig down several inches to loosen soil. Most plants struggle when soil is not loosened, particularly root vegetables. Replace some native soil with peat moss and organic compost, mixing with existing soil. Fertilize. Water thoroughly before planting. Sow seeds at the directed depth and water daily until sprouting, then as needed.

Raised garden beds such as Vita brand are recommended—BPA-free recycled plastic that lasts indefinitely. Never use pressure-treated wood for raised beds. Untreated wood requires replacement every few years.

Fertilizing

Fertilizer benefits most vegetables except spinach and spinach-like plants. These contain nitrates; fertilizer increases nitrate content unnecessarily, and they obtain adequate nutrition from soil. For other vegetables, use a general organic fertilizer—chicken manure is excellent. Fertilize before planting and as needed during growth, following package directions. Water thoroughly when fertilizing to prevent burn, and apply to soil around plants rather than directly on foliage.

Making Organic Compost

A composter is an excellent investment. Add kitchen scraps, banana peels, yard waste, trimmings, and cardboard. Composting requires both "green" (nitrogen-rich) and "brown" (carbon-rich) materials. Excessive green material creates a soupy mess. Cardboard—with tape removed—serves as excellent brown material, absorbing liquid and breaking down into beneficial organic matter.

Home composting ensures knowledge of exactly what the compost contains. A tumbler-style composter that can be turned is recommended. Mantis is a reliable brand.

Rain Barrels

Rain barrels support self-sufficiency and need not be unattractive—decorative options resembling pottery are available. Municipal water often contains chlorine, which plants tolerate poorly. The difference in plant health when using natural rainwater is remarkable.

Rain barrels can be positioned under roof runoff even without gutters. In emergency situations, collected water can be treated with military-grade iodine or mild chlorine tablets for drinking. Do not drink untreated water directly from the barrel. Boiling is also effective for treatment.

Select a BPA-free rain barrel. No manufacturer will label barrels as suitable for drinking water due to liability—this does not mean properly treated water is unsafe.

Seed Storage Guidelines

For delayed planting, proper storage ensures seed viability. Seeds require cool, dark, and dry conditions. Retain seeds in the food-grade plastic bag provided, place the bag inside a sealed glass jar, and cover with an opaque bag or material to block light. Ideal storage locations include basements or refrigerators. Refrigeration is essential for certain species, including poppies. Under proper conditions, most seeds remain viable for 1-5 years, depending on species.

Satisfaction Guarantee

Seedcult guarantees all seeds, bulbs, and bare root plants to provide satisfactory yields. Customers who experience germination issues or are dissatisfied for any reason are encouraged to contact Seedcult prior to leaving a review. Replacement, refund, or expert guidance will be provided. Customer satisfaction and plant success are core priorities.

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