Amaranth (Amaranthus tricolor)
Amaranth is a tropical leafy green that loves hot weather but also should be kept well-watered. It is eaten in many countries in stewed dishes, like “callaloo” in the Caribbean, and can also be eaten uncooked. Very nutritious, containing micronutrients like vitamins A, C, and folate and more calcium and protein than most greens.
**Amaranth A.** Oval-heart shaped leaves, medium green. Baby leaves can be harvested in 25-30 days, with a larger harvest later on from tall plants.

Bean (Phaseolus Vulgaris)
SPI carries garden bean seed for fresh use as a green vegetable and white bean seed for dry bean use. Beans are open-pollinated.
**Bean C.** For eating young pods as a fresh green vegetable. Small bush type, maturing quickly (55 days) to form thin, stringless beans, known as filet beans or *haricot vert*. Resistant to anthracnose and common bean mosaic virus, tolerates tropical heat. Good nutritious household food or fancy marketing item.**
**Dry Bean D.** White bean for dry bean use. Treated. Low in stock, contact us to order.

Beet (Beta vulgaris, Crassa Group)
Beets are generally a cool-season crop. Beets contain vitamin C; greens are a generous source of lutein/zeaxanthin, a factor in eye health. Roots contain folate and iron.
**Beet B.** Well-known open-pollinated Ruby Queen type, new to SPI in 2017. Small round beet, small green tops, uniform shape and quality. Tolerates wet weather better than Detroit type, but avoid very hot, dry conditions.

Broccoli (Brassica oleracea, Italica Group)
Broccoli is generally a cool-season crop but the variety offered by SPI is bred for superior heat-tolerance. *Broccoli has an unusually strong combination of both vitamin A (in the form of beta-carotene) and vitamin K.*
**Broccoli B.** Open-pollinated Italian heirloom new to SPI with large quantity in stock, half price. Lighter green, small heads with many side-shoots.

Cabbage (Brassica olerace, Capitata Group)
SPI carries one OP variety at this time. Cabbage is one of the more heat-tolerant leafy green vegetables. One cup of cabbage provides 66.5% of the RDA for Vitamin K and 42.7% for Vitamin C.
**Green Cabbage A.** Open-pollinated, Copenhagen Market type. Well-known early type. In tropical areas, grows best in the coolest season, not too wet.

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Nutritional advice printed throughout is from the Mateljan Foundation website (whfoods.com) and other sources. Consult your own sources of nutrition expertise to supplement the ideas provided in this text.

Vitamin A is key to eye health, immune support, and cell growth. 8 of the top 10 common vegetable sources of Vitamin A are found in this catalog.
Don’t see what you want in the catalog? SPI can use our extensive seed industry contacts to custom-source seeds exactly for your needs. Prices will not be as low, but we will pass along any savings we are able to leverage on your behalf.

**Carrot** (*Daucus carota*)
Direct seed, keep watered, and weed. Carrot seed is among the more short-lived, order it close to when you’ll use it. This is treated seed, which can help prevent seedling diseases. Long and thin, good resistance to blight diseases. Prefers loose soil. Low stock, call first.

**Carrot F**. Hybrid Imperator type, treated seed to help prevent seedling diseases. Long and thin, good resistance to blight diseases. Prefers loose soil. Low stock, call first.

**Carrot G**. Hybrid Chantenay type. Thick, blunt-end, reddish-orange roots, ideal for heavy, sandy, or shallow soils. This variety is thought to store well.

**Chinese Cabbage** (*Brassica rapa*, Pekinensis Group)
Chinese cabbage is less heat-tolerant than cabbage and requires a moderate climate. One of the fastest vegetable crops to germinate and to harvest.


**Chinese Cabbage B**. Napa type, known as Michihili. Open-pollinated. A dense head of soft, crinkled leaves with a flat rib, pale green/white. Good raw or cooked.

**Collard** (*Brassica oleracea*, Acephala Group)
Collard is a more heat-tolerant leafy green. One cup cooked provides 308% of the RDA for Vitamin A, and ten times the daily Vitamin K requirement.

**Collard C**. Open-pollinated “heading” type. Large, dark-green leaves form loose heads when mature. Not tight heads like cabbage. Starts to mature around 45 days. With even moisture, young leaves have a softer texture and a sweeter taste; older leaves are large with a glossy or waxy feel; best in a long-cooked savory stew.

**Coriander/Cilantro** (*Coriandrum sativum*)
Coriander (also known as cilantro in Spanish) is a popular green herb, often added to curries, chutneys, or salads in many parts of the world. Good market value for many SPI partners in terms of income potential from a small garden.

**Coriander A**. Bred for large, flavorful leaves, that are a little slower to bolt (go to seed) in hot weather. New to SPI in 2019.

**Cucumber** (*Cucumis sativus*)
SPI offers a a hybrid pickler type and an open-pollinated slicer. Cucumbers are the fourth most-grown vegetable in the world, enjoyed on every continent.

**Cucumber E**. Hybrid pickler type. This does not mean you can only use it for pickles. Fruits are smaller and not as smooth as slicers, but with many more fruits per vine. Early maturity, straight and blocky in shape.

**Cucumber F**. Open-pollinated typical green slicer.

**Eggplant** (*Solanum melongena*)
Eggplant is Asian in cultivated origin, spreading to Africa before the middle ages. Eggplant likes warm nights above 60° F (16° C), but may have trouble setting fruit when temperatures stay above 75° F (24° C). A good choice for transplanting.

**Eggplant D**. This is the common open-pollinated variety ‘Black Beauty’, a large blocky oval-shaped Italian type of eggplant on a strong plant. Flavor is best if harvested when skin is still dark purple and shiny.

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Kale (*Brassica oleracea, Acephala Group*)
Kale is considered a cool-season green but we have had contact with partners in East Africa in riverine or wet-highland areas who grow the crop with good success.

**Kale C.** A dwarf Siberian type, low-growing with thick leaves. Good cold-tolerance, needs water in hotter climates. About 60 days to full size.

“Researchers now identify over 45 different flavonoids in kale. Flavonoids ... provide a leading dietary role with respect to avoidance of chronic inflammation and oxidative stress.”

Lettuce (*Latuca sativa*)
Generally a cool-weather crop but growable where soil temps are not extreme and some moisture is available. *Among the vegetables, lettuce is a strong Folic Acid source as well as providing vitamins A, C, and K.*

**Lettuce G.** Open-pollinated romaine lettuce of the common ‘Parris Island’ type which is considered heat-resistant for a lettuce. Pick baby leaves at 28 days or large, upright, uniform heads at 55 days. Resists tip burn and mosaic virus.

**Lettuce J.** Open-pollinated butterhead loose-leaf type. Dark green variety bred to tolerate heat and resist tip burn, bolting, mildew, and mosaic virus.

Melon (*Cucumis melo*)
Honeydew melon has smooth, pale rind. Similar to cantaloupe but lack of netting helps reduce disease in wet conditions. Useful for growers selling produce to hotel foodservice.

**Honeydew Melon A.** Open-pollinated, standard honeydew melon (green flesh). His variety needs about 110 days to maturity but is very sweet and keeps well.

**Older seed still testing at 94% germination, half price.**

**Honeydew Melon C.** Hybrid honeydew melon with orange-colored flesh. About 80 days to maturity. Orange flesh is higher in Vitamin C and beta-carotene.

New Zealand Spinach (*Tetragonia tetragonioides*) *A few hundred packets remain in stock - ask if interested.* New Zealand spinach has similar nutrition and use as European spinach, but with much higher tolerance to heat and salinity. Few pests or diseases. The seeds are slow to germinate (15-20 days): try soaking in water first.

**New Zealand Spinach D.** Common type sold by seed companies worldwide. Spreads as it grows, so plant farther apart than European spinach. Open-pollinated.

Okra (*Abelmoschus esculentus*)
This crop is in the hibiscus family and originated in Africa. Okra loves heat and moderate water. In these conditions, Okra is easy to grow, relatively pest-free and a generous producer if picked regularly when pods are small.

**Okra C.** Specialty variety 'Star of David' has large, deeply-ridged fruit which are best harvested when pods are short.
Onion (Allium cepa)
SPI offers red and yellow types. Nutrition and growth habit are similar so selection should be made based on cultural preference. SPI selections are short-day onions, which makes them suitable for tropical and subtropical use, unlike the onions grown by gardeners and farmers in most of US and Europe. Research shows onion can help increase bone density. Sulphur in onions supports connective tissue health. Some studies show antibacterial properties as well.

**Onion-Yellow G.** Hybrid short-day onion, large sized, yellow to brown skin. Stores well in good conditions. Treated seed to prevent seedling diseases, handle with care. Germinating at 80% but showing signs of decline. Half price.

**Onion-Red F.** Open-pollinated short-day onion, dark red in color. Likes hot and dry conditions.

Pea, English (Pisum sativum)
Garden peas are a cooler-weather crop. All peas and beans fix nitrogen in soil and, once picked, what remains of the plant easily breaks down for soil improvement. Nutritionally, in addition to providing hunger-fighting of protein, sugars, and starches, green peas hold multiple vitamins and phytoneutrients.

**Pea B.** English pea producing many tendrils (Afila type), self-supporting when densely planted, 22-24” height, small to medium-sized peas, late maturity, bean leaf roll tolerance and powdery mildew resistance.

Pepper (Capsicum annuum var. annuum)
SPI offers one bell and two hot peppers, all open-pollinated. Peppers love heat up to about 90F and can produce in relatively dry conditions compared with most annual vegetables. Peppers have high levels of vitamins A, C, and others, moreso when ripe. Hot peppers are antibacterial and have cardiovascular benefits.

**Bell Pepper B.** Hybrid green-to-red bell pepper. Sturdy, upright plants with smooth, blocky fruits and good disease resistance.

**Hot Pepper B.** Long, thin cayenne pepper. Open-pollinated typical variety

**Hot Pepper D.** Jalapeno type. Ripens green to red, thick-walled, short, stubby. This hybrid cultivar is early (65-70 days), high yielding in good conditions, and large for a jalapeno. Treated seed, handle with care.

Radish (Raphanus sativus)
SPI offers a small round red type and a Daikon type. Radishes are fast-growing and generous but prefer cooler weather and some moisture.

**Radish D.** Open-pollinated typical round red radish, white flesh, good quality.

Spinach (Spinacea oleracea)
Among greens, spinach may be the most cold-friendly and least heat- and drought-tolerant. If temperature and moisture are right, spinach can be more free of pest damage than most other greens. #1 Vitamin K source among all foods.

**Spinach C and D.** Similar hybrid types. Dark green, smooth, thick leaves. Good for growing at close spacing to baby-leaf size for super-fast harvest, or to full maturity. Limited stock of Spinach C remains. C is treated, D is not. Treated seed helps prevent fungal diseases, but should be handled with care.

Vitamin C deficiency is called scurvy and includes bleeding gums and skin discoloration. Lack of C also causes poor wound healing, weak immune function, and susceptibility to infections. Because of 25-50% loss through cooking, C-rich foods are best consumed in raw, fresh form if possible. The top five sources of Vitamin C are all vegetables: peppers, broccoli, brussels sprouts, cauliflower, and parsley.

- George Mateljan Foundation

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**Squash (Cucurbita)**

SPI offers one summer squash and one winter squash variety. Squash likes hot weather and is a famously generous producer.

**Summer (Soft) Squash E.** (*Cucurbita pepo*) A hybrid zucchini of the “grey” or “Lebanese” type which has a light green skin and is shorter and more bulbous at harvest than the dark green types. Good disease resistance

**Winter (Hard) Squash E:** (*Cucurbita moschata*) A hybrid butternut squash variety bred for disease resistance, size, and uniformity.

**Swiss Chard** (*Beta vulgaris, Cicla Group*)

Same species as beet but grown only for consumption of leaves which have a thick celery-like rib. Withstands light frost. Holds well after cutting. Swiss chard and beets are among the vegetables most tolerant of soil that has become a little salty.

**Swiss Chard C.** Open-pollinated swiss chard, common Fordhook type.

**Tomato** (*Lycopersicon esculentum*)

SPI offers one open-pollinated tomato and one hybrid. We favor smaller processing or dual-purpose types for most aid and development situations because they have a little thicker skin and tend to be most reliably productive. Tomatoes are tropical in origin and like heat, but do stop flowering after about 90 degrees F. Tomatoes are most often grown by transplanting, but direct-seeding can be used.

**Tomato E.** Blocky oval-shaped tomato, considered a “saladette” type. Hybrid, determinate (tends to produce a large crop all at once). Highly resistant to Alternaria, Fusarium, Mosaic Virus, and Verticillium. Moderate resistance to Yellow Leaf Curl.

**Tomato C.** Open-pollinated squarish plum-shaped type bred for processing but still tasty fresh. Persists through hot days and cold nights. Resists Verticillium and Fusarium wilt. About 80 days from transplant to harvest; fruits average 100 grams.

**Watermelon** (*Citrullus lunatus*)

Watermelon likes heat and needs space to grow. Watermelon seed transport restrictions are among the most specific due to disease concerns.

**Watermelon B.** Hybrid, sweet red-flesh watermelon, smaller round fruits (about 8kg). Thick rind with dark green exterior. Vigorous plant with heavy foliage and good disease resistance. *Older seed still testing at 94% germination. Half price.*

**Flower**

Some of our partners like to supply flower seeds for one of several purposes: market sales, attracting beneficial insects, and adding beauty and appeal to gardens.

**Flower A.** Marigold. (*Tagetes patula*) A mix of orange to yellow types.Shown to suppress nematode pests in vegetable garden soil while attracting beneficials. Low spreading habit can help prevent weeds around vegetables as well. Surprisingly drought-resistant. Add to layer hen feed to give nutrition and brighten yolks.

Folic Acid (folate) is a B vitamin that prevents birth defects. Folate works by supporting red blood cell circulation and the nervous system. Low levels are also associated with cognitive impairment in children, and early dementia in adults.

This farmer in Marsabit, Kenya, grows SPI tomatoes on trellis under shadecloth.

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Frequently Asked Questions

How much does it cost, and how do I begin the ordering process? We charge a service fee to cover some of our cost of operations. The price is .12 to .40 US$ per packet, depending on quantity ordered. See our order form for details. All logistics questions are handled in much more depth at seedprograms.org/working-with-us/become-an-spi-partner, or by contacting our office at 828-337-8632 or orders@seedprograms.org. On the website you will find a link to our request for seed form.

What is hybrid seed? Hybridization is not the same as genetic modification (GMO). Hybrid seed is simply saved from a plant that was crossed with another plant by moving pollen from one to the other, as happens in nature every day. Some of our partners prefer hybrids because they can be more vigorous and disease-resistant. SPI seed is non-GMO.

Is seed saving something I should consider? In general, open-pollinated seed can be saved and grown to replicate the traits of the parent plant, and hybrid seed cannot. If you are interested in seed saving, you will see that half or more of our catalog is currently open-pollinated. Keep in mind, though, that vegetable seed saving is a bit technical and can be hard to implement successfully. Contact SPI to discuss your needs and to see if seed saving is appropriate for your climate.

Why do you only carry one to three varieties of each? We seek varieties that can be successfully grown in the conditions where hunger is most prevalent. Field reports confirm that the seed we offer is widely adaptable and can withstand many locally-specific conditions and differences.

How long does it take to receive seed? SPI strives to keep a strong supply of packaged inventory in our warehouse. We may be able to provide rush turnaround when needed, within the bounds of what is already in our packaged inventory. We suggest that you begin the process of placing orders that are large or include custom sourcing or printing at least 60 days before your ship date.

Can SPI help us assess our needs? Yes, we can. SPI's services include seed assessment, training coordination, and/or efforts to figure out how aid-supplied seed may or may not have a role in supplementing or working with the local seed supply.

To discuss our role in your vegetable seed project, contact us at 828-337-8632, or orders@seedprograms.org.
For over 20 years, Seed Programs International has collaborated with leading organizations to alleviate hunger by supplying vegetable seed to people who need it most. Our seeds have supported projects that range from youth development to establishing livelihoods to agribusiness. Through our local partnerships, we distribute high-quality vegetable seed that families and farmers grow into nutritious vegetables that reduce hunger and build stronger and more sustainable communities.

When you partner with Seed Programs International, you are working with experts in vegetable growing. We match our seed to each community; coordinate support for local agronomic expertise; and provide seed assessment.

We’d love to discuss ideas for working together at 828-337-8632 or order@seedprograms.org. You can also learn more about the work we do with our partners by visiting www.seedprograms.org.

Benefits of Partnering with Seed Programs International

**Reduce Cost:** Save money on high-quality, commercial-grade vegetable seeds selected to grow in challenging tropical conditions. Germination rates are regularly tested to guarantee quality and satisfaction of import requirements.

**Brand It:** We can customize your seed packets. Popular options include: logo and branding, labeling in a language of your choice, messaging, or a custom design.

**Increase Exposure:** Our story is your story and vice versa.

**Change Lives:** Together, we can alleviate hunger, improve nutrition, and grow livelihoods with the people who have the greatest need.

**Post-Disaster Recovery:** When disaster hits, the first response is for shelter, water, sanitation, medical care, and emergency food supplies. But what happens next? SPI works with communities to reestablish nutrition and income, become more self-reliant, and build resilience against future disasters.

SPI has established over 500 partnerships throughout 75 countries. Partners include: