seed programs international

Vegetable Seed Catalog 2014

Results from SPI seed, with other produce. Central African Republic, 2011. Partners: Assomesca, Child First Meds.

Sow Seeds to Fight Hunger

ABOUT SPI **Welcome to the seed catalog for Seed Programs International. We provide seed for humanitarian aid use, primarily outside of the United States and Canada. Since 1998, we've shipped more than 13 million packets of seed for use in 72 countries. Uses of SPI seed range from simple family distribution, to community gardens, to farming microenterprises. Many people in both crisis and in chronic poverty situations have no access to the nutrients and calories that vegetables can provide. Our work is based on the premise that with your help, hungry people can grow some of the food they need.**
In situations where dietary choices are limited, or when immune systems are compromised, vegetable consumption may make the difference between normal health and life-threatening disease.

We do not offer any genetically modified seed.

For answers to more frequently asked questions, please view the end of this document.

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Bean

SPI carries green bean seed for fresh use and black bean seed for dry bean use.
Bean C. Open-pollinated, new acquisition in 2013. Typical green bush bean. High-yielding modern improved commercial variety with disease resistances. Straight, uniform pods.
Bean B. Black bean for dry bean use, new acquisition, 2013. Upright short vines, resistant to rust and mosaic virus. This is treated seed (to resist fungal and bacterial diseases) and labeled as such.

Beet

Beets are generally a cool-season crop. *In addition to being a strong source of Vitamin C, beet greens are an especially generous source of lutein/zeaxanthin which is identified as a factor in eye health.*
Beet A. Open-pollinated, distributed periodically since 1998. Standard round red beet, mid-sized, versatile. Positive reports from aid/development use on the east coast of Madagascar, in South Africa, and in North Korea where our partner reports that the crop was unfamiliar yet much enjoyed.

Broccoli

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 A. Hybrid, distributed by SPI since 2008. Blue-green broccoli, heat and downy mildew resistant.

Cabbage

SPI carries one variety and is seeking more acquisition. 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. Red cabbage has more phytonutrients than green, specifically anthocyanin pigments, for which interest continues to intensify due to antioxidant and antiinflammatory properties.*
Green Cabbage A. Open-pollinated, distributed by SPI since 2011. Round green, 6" heads, stores well if conditions are right. This cabbage was grown in 2011 in Haiti, Nicaragua, Honduras, Cote d'Ivoire, Kenya, and Uganda, and reordered for 2012 in all cases.
Red Cabbage. Currently seeking seed donations.

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.

Nutritional information printed in italics throughout is paraphrased from the George Mateljan Foundation website (whfoods.com) and other sources. Please consult your own sources of nutrition expertise to supplement the ideas provided in this text.


Beet A, North Korea

Vitamin A is actually a group of compounds. It is key to eye health, immune support, and cell growth. Recent research has focused on the vitamins' role in genetic events and may point to birth defect prevention. The carotenes (alpha- and beta-) are a type of Vitamin A and are necessary to prevent deficiency. **8 of the top 10 Vitamin A vegetable sources are found in this catalog.**

Cantaloupe

SPI carries three varieties. Cantaloupe prefers warm nights and generally sandy soils. Not a best choice for high-altitude areas. *Beta-carotene content can reach levels as high as 3,138 micrograms (per 100 grams of fresh weight). That's about 30 times higher than the beta-carotene content of fresh oranges, and about 40% that of carrots. One cup has about 100% the RDA for both Vitamin A and Vitamin C.*

Cantaloupe A-C. Hybrids, all typical orange-flesh melons, round to oval, netted. Developed for similar production conditions and more or less interchangeable. Recent positive results and reorder from Madagascar.

Carrot

Carrots generally don't like extreme heat, yet we've seen successful efforts in tropical areas. Carrot seed is among the more short-lived in storage. In challenging storage conditions, as in the tropics, order it close to when you'll use it. W*here carrots can be grown, they are an ideal combination of calorie production per acre, micronutrient value, and market value.*

Carrot A. Offered by SPI since 2010. Dark orange Imperator type (long roots).This variety was bred for a cylindrical shape and strong tops (easily pull out of heavy soils without breaking). It is used by (and developed for) California fresh-market growers and therefore is likely more heat-tolerant than some typical home garden varieties. Positive reports/reorders from Central African Republic, Cote d'Ivoire, Liberia, Haiti, Honduras, and Nicaragua.

Carrot A, Central African Republic

Cauliflower

Cauliflower requires a moderate climate but we have seen success in African highland areas with lower nighttime temperatures. Always a good candidate for transplanting rather than direct-seeding. *Cauliflower is a top-5 source of Vitamin C among all foods.* Seeking acquisition - custom sourcing available.

On the smaller, kitchen-garden scale, many common pests such as bean beetles, cabbage worms, and squash bugs can be controlled by hand-picking. Control is not 100% but can often be sufficient to produce a good, viable food crop.

Chinese Cabbage

Chinese cabbage is less heat-tolerant than cabbage and requires a moderate climate.

Chinese Cabbage A. Pak Choi type. Open-pollinated, distributed by SPI since 2010. Thick stems bunched in a tight cluster. Positive reports from Haiti. This type germinated with remarkable speed in our US-based field tests.

Collard

Collard is one of the more heat-tolerant greens. SPI carries two types. *One cup cooked collards provides 308% of the RDA for Vitamin A, and ten times the daily Vitamin K requirement.*

Collard A. Open-pollinated, Georgia Southern type (slightly savoyed and large, 2-3 feet). Distributed by SPI since 2007. Deep blue-green leaves. Positive partner reports from Mongolia and Liberia.

Collard B. Hybrid, Vates type (smoother, broad green leaves). Described as slow to bolt in heat.

Georgia Southern-type Collard

Vegetables are thought of primarily as a source of nutrients, but could also be important in supplying calories. Studies using world average yields have shown that carrots produce slightly more edible calories per hectare per day than maize, potatoes, and sweet potatoes, and that cabbage and onions are comparable to wheat and rice. Grains are much less perishable and easier to ship than vegetables, but if locally produced, vegetables can be a good source of total nutrition.

Cucumber

SPI offers two similar hybrid slicers and a hybrid pickler type. Pollinator added when needed to ensure excellent pollination. Cucumbers are the fourth most-grown vegetable in the world, enjoyed on every continent.

Cucumber C-D. Similar hybrid green slicers, straight medium with relatively smooth skin.

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

Eggplant

SPI offers one hybrid type. Eggplant is South Asian in cultivated origin, spreading to Africa before the middle ages. It loves hot days and nights, and is a good candidate for transplanting as opposed to direct-seeding.

Eggplant B. Hybrid. Birgah type (flattened, fluted globe shape). Reorders after one year trial by NGOs in Haiti and Liberia. Positive results from 2013 use in Uganda.

Kale

Currently seeking acquisition. 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. *"Researchers can now identify over 45 different flavonoids in kale. With kaempferol and quercetin heading the list, kale's flavonoids combine both antioxidant and anti-inflammatory benefits in way that gives kale a leading dietary role with respect to avoidance of chronic inflammation and oxidative stress." - George Mateljan Foundation*

Custom sourcing availble as requested.

Lettuce

SPI offers two types of lettuce, both open-pollinated. Small lots available at this time; seeking new acquisitions. 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 C. Open-pollinated green leaf lettuce. Widely-grown standard variety. Light-green crinkled leaves. Withstands some heat, drought, and light frost.

Lettuce D. Open-pollinated green leaf lettuce with red tips. Slow to bolt (form a seedhead) according to some description.

Melon-Galia

Galia melon was bred in Israel for commercial use in irrigated semi-arid conditions, and is now grown commercially in Central America as well. This was a one-time bulk seed donation to SPI several years ago, and the seed has held its quality very well in storage. It is not a well-known crop but we are eager to hear reports of use in aid and development situations.

Galia Melon A. Hybrid, offered by SPI since 2006. Lightly-netted melon with yellow rind, pale green flesh, unique fragrant/spiced sweet flavor.

Mustard Greens

SPI offers three types of mustard green. Like all brassicas, they prefer cooler weather and do not thrive in overly dry conditions. However, most mustard greens are more heat-tolerant than kale or spinach. *Mustards have the highest folate levels of all the cruciferous (cabbage-family) plants with the exception of turnip greens.*

Mustard Greens A. Open-pollinated Southern Red Giant type. Thick purplish savoyed leaves with white midribs, slower to bolt in the heat. This mustard was re-

Some of our partners look beyond feeding the household to providing seed for small farming businesses. In addition to vegetables, SPI offers a couple of types of flower seed for microenterprise use.

Lettuce can be grown in tropical places if watering is steady.

Need something that's not here? SPI can use our connections with the seed trade to attempt to custom-source the seed you need.

Unsure what to order? We would be glad to help select vegetables based on the climate, culture, and conditions where your project is located.

Vitamin K is a family of substances. It is essential for bloodclotting and as a result is indicated to prevent easy bruising, gum bleeding, and inflammation. Bone density loss and breakage can be caused by Vitamin K deficiency. The top sources are all green vegetables.

Galia Melon, typical appearance.

cently reordered by NGOs in Kenya and Liberia. 73% germination at last test -- sow a little more thickly.
Mustard Greens B. Early-maturing, dark green smooth leaves. Open-pollinated.
Mustard Greens C. Open-pollinated purple type, with strongest horseradish-like sharp flavor in raw greens, flavor moderates when cooked. Popular in Asia.

Okra

SPI offers two types of Okra. This crop is in the hibiscus family and originated in Africa. Grow okra by direct-seeding and provide water and heat. In these conditions, Okra is easy to grow, relatively pest-free and a generous producer indeed.
Okra A. Open-pollinated. Offered by SPI since 2010. Dark green, slightly grooved spineless 3-4" pods. Used for three years by NGO partner in Liberia.
Okra B. Open-pollinated. Compared with Okra A, has a longer pod and shorter plants. An SPI variety trialer in high-altitude, aridAlgodones, New Mexico, US, called this okra "exceptional" in her garden.

Onion

SPI offers a red and a yellow type. We find that red onions are preferred in most but not all of Africa. Both are short-day onions, which makes them suitable for tropical and sub-tropical 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.* Nutrition and growth habit are similar between the colors so selection should be made based on cultural preference.
Onion B. Open-pollinated, short day, red bulbing onion. SPI has distributed this red onion throughout Africa for several years and has only heard positive reports - great results in Uganda in 2013. Also reordered by a Haitian NGO.
Onion C. Hybrid, yellow, short day, sweet onion, with a top-heavy round shape. Not recommended for long-term storage.

Pea

Garden peas are a cool-weather crop. We are currently considering seeking donations of bulk seed for southern peas/cowpeas, so please let us know if these varieties would be of interest in your service region. 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 a hunger-fighting trifecta of protein, sugars, and starches, green peas hold multiple vitamins and phytonutrients.*
Pea A. Open-pollinated typical green shelling pea, good for fresh eating or freezing/canning use where appropriate.

Pepper

SPI offers a bell pepper and two hot pepper. Peppers love heat up to about 90F and can produce in relatively dry conditions compared with most annual vegetables. Nutritionally, all peppers contain high levels of vitamins A, C, and others, moreso when ripe. Capsaicin in hot peppers is widely studied for its role in preventing ulcers and all inflammatory response, for antibacterial qualities, and cardiovascular benefits.
Bell Pepper B. Open-pollinated green-to-red bell pepper. Sturdy, upright plants with smooth, blocky fruits.
Hot Pepper A. Open-pollinated medium-hot pepper with a long narrow shape but a little wider and thicker-fleshed than Cayenne, and more variably shaped. Ripening green to red. This pepper is described as a "Corne de Chevre" or goat's horn type, which originated in Spain.
Hot Pepper B. Open-pollinated, very hot Cayenne type, with a slender, tapered shape.

Why don't you say the variety names? Our seed is donated to us in bulk by some of the small and large seed producers who supply farmers and gardeners worldwide. We are able to receive these donations of good, tested, bulk seed by promising donor and variety name anonymity.


Onion B, Central African Republic

Vitamin C deficiency, in its full-blown form, 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 of Vitamin C through cooking, C-rich foods are best consumed in raw, fresh form if possible. The top five sources of Vitamin C are all vegetables: bell peppers, broccoli, brussels sprouts, cauliflower, and parsley.
- George Mateljan Foundation


Hot Pepper A is Variable in Shape

Radish

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 A. Hybrid uniform round red, white flesh, good quality. Offered by SPI since 2007.

Radish B. Hybrid Daikon type, long white radish, more heat-resistant than round types. Daikon can be mixed with cover crop and tilled or turned in to help break up hard soils and improve fertility.

Soil improvement can be essential.

Spinach

Among greens, spinach is perhaps the most cold-friendly and least heat- and drought-tolerant. If temperature and moisture are right, spinach is generally more free of pest damage than most other greens. *The #1 Vitamin K source among all foods. "Recent research has shown that glycoglycerolipids from spinach can help protect the lining of the digestive tract from damage — especially damage related to unwanted inflammation." - George Mateljan Foundation.*

Spinach A. Hybrid offered by SPI since 2010. Smooth, round, dark green leaves, mildew resistant.

Squash

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

Summer Squash B. Hybrid spineless zucchini type, dark green.

Summer Squash C. Hybrid zucchini type, known as "grey" by seedsmen but more light-green in color. Prolific, open plants.

Winter Squash A. Open-pollinated typical Acorn type with dark green skin and orange flesh.

Winter Squash B. Open-pollinated typical Buttercup type, turban shaped with orange flesh. Winter Squash B has a bit more sprawling habit and, in most conditions, denser more granular flesh than Winter Squash A.

Typical Buttercup-type squash

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.

Tomato

SPI offers two types of open-pollinated tomato seed. We favor processing 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 B. Open-pollinated large plum-shaped type bred for processing but still tasty fresh. Reordered by NGOs in Madagascar, Uganda, Haiti, and North Korea, where this tomato was grown both outdoors and in greenhouses.

Tomato C. Open-pollinated round type bred for processing but still tasty fresh. Used successfully and reordered in multiple African and Central American countries.

Tomato B, North Korea

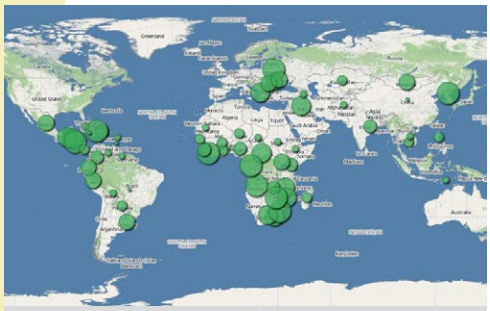
Watermelon

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

Watermelon A. Hybrid, orange-flesh watermelon, large oblong fruits. Well-received and reordered in both Liberia and by two programs in Nicaragua. Consult locally as to whether orange flesh will be an issue. If not, this is a proven variety in our experience.

Orange-flesh watermelons along with certain orange-colored tomatoes get their pigment from prolycopene. Of all the carotenoids, research shows that this one far exceeds the others in terms of how absorbable it is into the human body, because of the shape of the molecule.

Frequently Asked Questions



SPI Seed Distribution, 1998-2013

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. A box of 1400 seed packets (which can grow five tons of food based on 25% of good US yield), if ordered alone, costs $350 plus shipping and phytosanitary certificate cost. All logistics questions are handled in much more depth at www.seedprograms.org/partner-with-spi/, or by contacting Dave Bender at ***806-698-6527*** or ***dave.bender@seedprograms.org***. On the website you will find a link to our request for seed form.

Isn't hybrid seed bad? 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.

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 have a strong track record of providing 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, evaluation of vegetable-growing's impact on nutrition, 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 President/CEO Peter Marks at **828-707-1640**, or **peter.marks@seedprograms.org**.

seed programs international

www.seedprograms.org
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QUICK GUIDE TO SPI SEED

About 25 types of vegetable are kept in stock, some hybrid and some open-pollinated. With advance notice, we can source to your requests. Seed is available in **garden-size packets, in sealed units of 100 packets of each kind.** Packets give planting instructions in one or more of 12 languages. Our standard carton holds ~1400 packets, weighs about 10 kilos/22 lb., and can be checked baggage with no surcharge.

PRICING PER PACKET, USD

Quantity	Price	Note
100-1,200	.40	100 pkt. min./type
1,200-2,800	.25	$350/box of 1400
2,800-16,800	.20	
16,800-42,000	.16	this qty.=one pallet
42,000-84,000	.14	
84,000+	.12	

Yield per carton estimated at five tons of food assuming 25% of good US yield. Prices do not include shipping or phytosanitary inspection. We arrange both and bill you at cost. We can arrange shipment to your final destination or to you, as you prefer. For larger orders, we can label seed packets with your organization's brand identity at a charge of .01/pkt. SPI is interested in collaborating on seed assessment and program planning. Contact us to learn more.

Find a request for seed form at
www.seedprograms.org/partner-with-spi/

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