

# GUIDE TO FOUR EASY VEGGIES YOU CAN GROW

Growing and eating homegrown produce is one of the best decisions you could ever make for your health. Homegrown produce is fresher, tastier and often more nutritious than anything you can get at the store. Plus, you'll reap the health benefits of all that sunshine and exercise outdoors! So let's start with the basics: **Peas, Spinach, Potatoes** and **Beans** are all easy for beginning gardeners to grow. You'll be off to a great start with these helpful primers, selected as top picks by the editors of MOTHER EARTH NEWS.



# ALL ABOUT GROWING PEAS

by BARBARA PLEASANT Illustrations by KEITH WARD

**P**lant peas in mid-spring, when the soil is still cool. The plants grow best in temperatures between 55 and 75 degrees, and young seedlings even tolerate frost. Bacteria growing on pea roots can produce most of the nitrogen the plants need when the crop is grown in cool, moist soil with a pH between 6.5 and 7.0.

## Types to Try

Vine length varies from one variety to another, and long-vined peas need a taller trellis than compact varieties. Both compact and long-vined varieties are available in the following four types, which vary in pod and seed characteristics.

**Snap peas** are eaten whole, and both the crunchy pod and the peas inside taste sweet. Snap peas yield more food per square foot than the other types.

**Snow peas** produce tender, flat pods that are eaten whole. Snow peas also produce the most tender vine tips for adding to salads or stir-fries.

**Shell peas** are often called English peas, because many fine varieties were developed in Great Britain in the 18th century. Sweet green peas are shelled from tough, inedible pods.

**Soup peas** produce hard, starch-filled seeds for drying inside inedible pods. Seed size and color vary with variety.



## In the Kitchen

Many peas will be eaten before they ever reach the kitchen, because all peas except for starchy soup peas are great to eat raw. A 50-calorie heaping handful of snap or snow peas provide iron, fiber and one-third of your daily quota of vitamin C. Peas cook fast, so they are great to toss into stir-fried dishes. Snap and snow peas work well as finger foods to dip into salad dressings. Cook dried peas like beans, but pre-soak them for only a few hours before cooking them.

## When to Plant

Sow in spring, about one month before your last frost date. Where summers are cool, additional sowings can be made three weeks apart. Peas produce poorly in hot weather, so an early start is always a wise strategy. In climates with mild winters, a second crop can be sown in late summer for harvesting in late fall.

## How to Plant

All peas benefit from a trellis or other support. Install a 6-foot-tall trellis before planting long-vined varieties. Compact varieties can be staked with woody branches or unemployed tomato cages after they sprout, or you can interplant short-vined peas with oats, which serve as a living support.

Prepare a wide planting bed by loosening the soil to at least 10 inches deep while mixing in compost. Do not use fertilizer unless your soil is very poor or

low in organic matter. Plant seeds in a double row, with a row of seeds on each side of the trellis. Poke seeds into the prepared site 2 inches apart and 1 inch deep. Thinning is not necessary.

## Harvesting and Storage

To avoid mangling the vines, use two hands to harvest peas. When green peas are ripe, harvest them daily, preferably in the morning. Pick snow peas when the pods reach full size and the peas inside are just beginning to swell. For best flavor and yields, allow snap peas to change from flat to plump before picking them. Gather sweet green shell peas when the pods begin to show a waxy sheen, but before their color fades. Immediately refrigerate picked peas to stop the conversion of sugar to starches and maintain the peas' crisp texture. Promptly blanch and freeze your extra peas.

Soup peas can be left on the vines until the pods dry to tan. After shell-

ing and sorting, allow soup peas to dry at room temperature until they are so hard that they shatter when struck with a hammer. Store in airtight containers in a cool, dry place.

## Saving Seeds

Peas are open-pollinated and self-fertile, so saving seeds is a simple matter of allowing a few pods from your best plants to mature until the pods dry to brown. Select the largest seeds, and put them in the freezer for three days to kill any insects that may be hiding inside. Then store in a cool, dry place. Pea seeds will keep for at least three years, and often longer. About 4 ounces of seed is needed to plant a 10-foot double row.

## Pest and Disease Prevention Tips

- Powdery mildew causes white patches to form on leaves and pods, but

## Peas at a Glance

Type	Description	Cultural Tips	Varieties
Snap pea (subspecies <i>macrocarpon</i> )	Plump, edible pods have thicker flesh than snow peas and also stay sweet and tender longer.	Pod size and tenderness vary with variety. Extend the harvest season by growing short and tall varieties.	'Amish Snap,' 'Cascadia,' 'Sugar Ann,' 'Sugar Sprint,' 'Sugar Snap'
Snow pea (subspecies <i>macrocarpon</i> )	Flattened pods lack tough inner membrane present in shell peas, so they can be eaten whole.	Harvest pods when the peas inside are barely visible. Add tendrils to salads and stir-fries.	'Golden Sweet Pea,' 'Snowflake,' 'Snow Sweet,' 'Oregon Sugar Pod II,' 'Oregon Giant'
Shell pea (subspecies <i>sativum</i> )	Eat only the peas; pods are tough and stringy. Harvest when the pods begin to look waxy, before the sugars in the peas change to starch.	Plants produce all at once, making freezing and canning more convenient. Short varieties grow well in containers.	'Dakota,' 'Eclipse,' 'Knight,' 'Canoe,' 'Tom Thumb'
Soup peas (subspecies <i>arvense</i> )	Seed color may be beige, brown, yellow or green. Cooking time varies with variety.	Easy to grow and also can be used as a nitrogen-fixing cover crop. Many varieties are adapted to dry climates.	'Alaska,' 'Blue Podded,' 'Carlin,' 'Margaret McKee's Baking Pea'



it is easily prevented by growing resistant varieties. So-called “afila” types, which produce many tendrils but only a few leaves, are naturally resistant to powdery mildew.

- Rotate peas with non-legumes to avoid the buildup of soil-dwelling fungi that can cause roots to rot.
- Pea enation mosaic virus causes distorted new growth, and it is most common in the Northwest and Northeast. Several resistant varieties are available.

## Growing Tips

**Team up short and tall varieties of the same type** by planting a compact variety on the outside of a quadruple row, with a long-vined variety closest to the trellis. The short variety will mature ahead of the taller one while helping to support it.

The easiest way to trellis peas is to **let a short-vined variety cling to the stems and leaves of upright cover crops like oats or wheat.** Many gardeners also save branches they have pruned from fruit trees or shrubs and use the branches to support compact varieties.

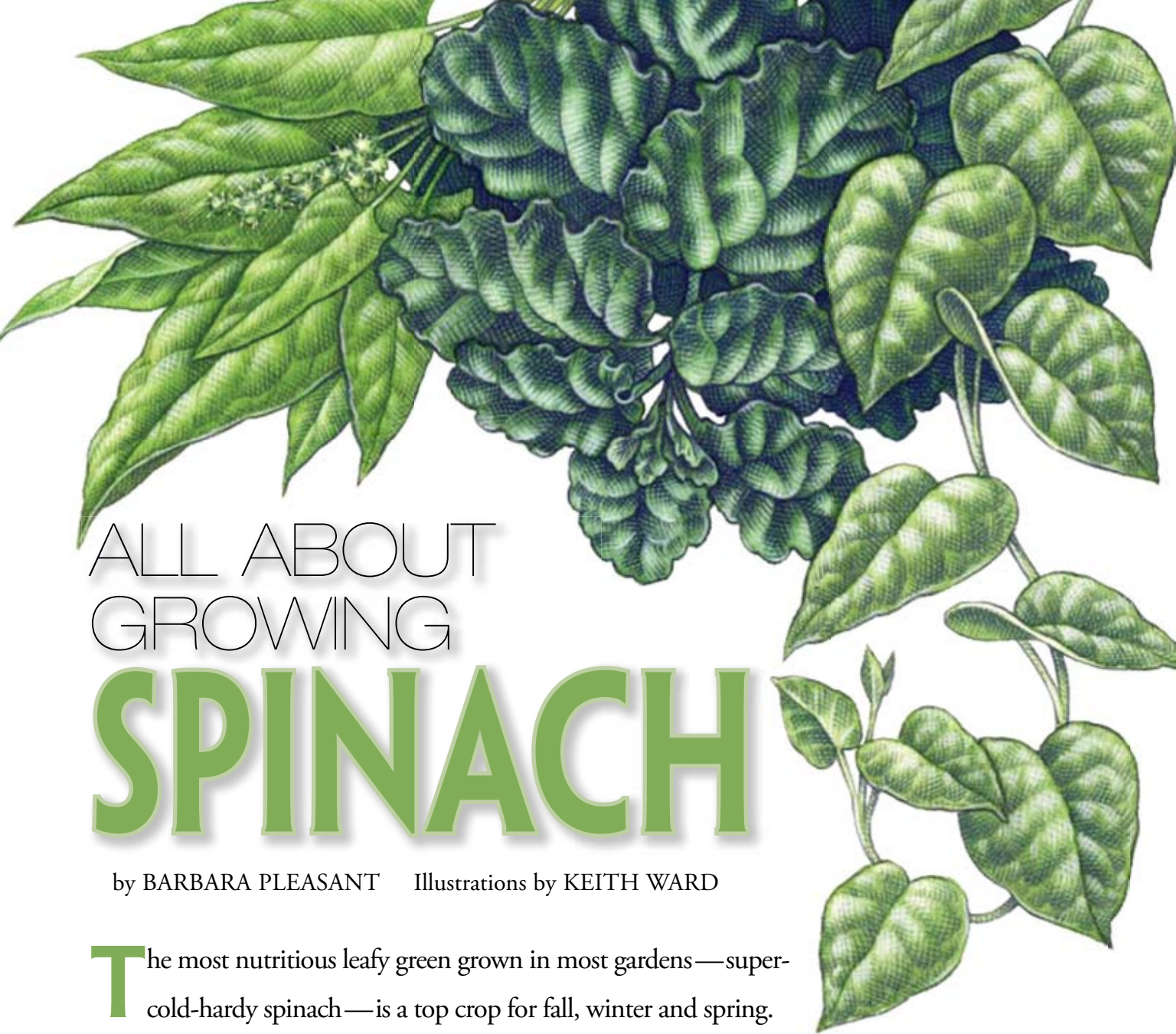
**Use peas as edible ornamentals,** especially varieties that produce lavender or purple flowers such as ‘Swiss Giant’ snow peas, ‘Blue Podded’ soup peas and ‘Margaret McKee’s Baking Peas.’

**Soak seeds overnight** in water before planting them. This will insure strong germination.

**Coat seeds with a powdered pea/bean inoculant** if you haven’t grown peas in your garden. This will provide bacteria that live on pea roots and produce nitrogen. In subsequent seasons, scatter a spadeful of soil taken from last year’s pea planting site onto your new pea bed. It will contain enough bacteria to help kick-start the nitrogen-fixing process.

**Mulch plants when they are about 12 inches tall** to help keep the soil cool and moist. Uniform soil moisture insures strong, steady growth.

**Follow spring peas with carrots or cucumbers** to make full use of the growing season. 🌱



# ALL ABOUT GROWING SPINACH

by BARBARA PLEASANT   Illustrations by KEITH WARD

**T**he most nutritious leafy green grown in most gardens—super-cold-hardy spinach—is a top crop for fall, winter and spring.

## Types to Try

Spinach varieties vary in the size, shape and texture of the leaves.

**Savoyed and semi-savoyed types** have dark green leaves—that are puckered or crinkled—and become especially crisp in cold weather. Many of the best varieties for growing through winter have savoyed leaves.

**Smooth-leaved spinach** is often a lighter shade of green compared to savoyed spinach, but the leaves are easier to wash and the plants tend to grow upright. Fast and easy to grow, smooth-leaved spinach can be gathered as baby greens, or you can let the plants grow to mature size.

## When to Plant

*In late winter*, beginning six weeks before your average last spring frost date, start seeds indoors or beneath a protective frame outdoors. Make two additional spring sowings at three-week intervals.

*In summer*, skip spinach and try the hot-weather alternatives on Page 33.

*In fall*, six to seven weeks before your first fall frost date, sow your main crop for fall harvest.

About four weeks before your first fall frost date, sow *winter* spinach in a place where the seedlings can be covered in frigid weather with glass, plastic or a thick row cover. This planting will mature in early spring.

## How to Plant

Prepare the planting bed by loosening the soil at least 10 inches deep. Thoroughly mix in compost along with alfalfa meal, soybean meal or another high-nitrogen organic fertilizer (follow label directions). Sow seeds a half-inch deep and 2 inches apart, in rows spaced at least 8 inches apart. As the plants grow, gradually thin them so the leaves of neighboring plants barely overlap.

## Harvesting and Storage

Beginning about six weeks after planting, pinch off individual leaves as

## In the Kitchen

Fresh from the garden, spinach is loaded with vitamins A and C, calcium and iron, and it has a remarkably buttery, nutty flavor when eaten raw in salads or sandwiches. Try semi-cooked wilted spinach salads made by pouring hot dressing over a bowl of torn spinach. Sage or thyme make great flavor accents. (Any dish with “Florentine” in its name includes cooked spinach.)



you need them in the kitchen, leaving the central rosette intact.

In spring, long, warm days cause spinach to “bolt” (flower and produce seeds). Unless you plan to save seeds, pull up the plants when you notice them developing a tall central stem. Thoroughly clean, then steam-blanch (which limits their uptake of water and fixes enzymes) and freeze bumper crops.

### Saving Seeds

Spinach is pollinated by wind, so select a group of closely spaced plants to get seed

from an open-pollinated variety. Spinach plants can be male or female. Male plants quickly grow tall and release pollen from clusters of fringelike structures, while females are stockier and hold their flower clusters close to the main stem. If you save seeds, allow seed-bearing plants to stand in the garden until they begin to dry.

In wet weather, pull them up and let them finish drying in a warm, well-ventilated place. Strip the seeds from the plants and let them air dry for a few days before cleaning and sorting them. Store in a cool, dark place for up to three years. When

placed atop hospitable soil, seed-bearing plants often shed enough seed to start a fall crop.

### Open-pollinated Options

Hybrid spinach varieties such as ‘Tyee’ (savoyed) and ‘Space’ (smooth-leaf) deliver high levels of disease resistance, but homegrown spinach rarely faces serious disease pressure. Among open-pollinated varieties, ‘Monnopa’ and ‘Butterfly’ are lower in oxalic acid compared to other varieties, which gives them a mild, sweet flavor. ‘Giant Winter’ and ‘Monstrueux

## Warm-Weather Spinach Alternatives

Plant Name	Description	Growing Tips
Patience Dock* <i>Rumex patientia</i>	Perennial to Zone 4; produces new flushes of edible leaves each time it is cut back.	Tolerates partial shade. Clip off flowers as they fade to prevent reseeding.
Golden Purslane* <i>Portulaca oleracea</i>	Lemon-flavored juicy leaves add crunch to salads; warm-season annual.	Sow in late spring in beds or containers. Pinch back often to prevent reseeding.
Perpetual spinach, spinach chard <i>Beta vulgaris ssp cicla</i>	Actually a compact, green-leafed Swiss chard; quite popular in European gardens.	Direct-sow from mid to late spring. Plant fall crop in late summer.
Garden sorrel* <i>Rumex acetosa</i>	Perennial to Zone 4; produces tangy leaves for cooking; ‘Profusion’ does not produce seeds.	Tolerates partial shade. Clip off flowers as they fade to prevent reseeding.
Lambsquarters* <i>Chenopodium giganteum</i>	Young leaves of “Mexican tree spinach” taste like spinach; plants can grow to 6 feet.	Leaves of ‘Magenta Spreen’ are splashed with pink. Prune as needed to prevent reseeding.
Orach <i>Atriplex hortensis</i>	Needs an early start, like spinach, but easier to grow and tolerates partial shade.	Red-leafed varieties make great edible ornamentals.
Vegetable amaranth* <i>Amaranthus species</i>	New leaves make tender and nutritious cooked greens; often added to Caribbean soups.	Sow after soil is warm. Pinch back often to push out new growth and prevent reseeding.
New Zealand spinach* <i>Tetragonia tetragonoides</i>	Young growing tips taken from sprawling plants resemble spinach when cooked.	Direct-sow from mid to late spring.
Malabar spinach <i>Basella rubra</i>	Vigorous twining vine from India produces glossy, edible leaves with fair flavor.	Sow in early summer, and train to grow on pillar or post.

\*These plants can become weedy, so maintain tight control on reseeding. Grow responsibly!

de Viroflay' produce leaves twice the size of regular spinach.

## Spinach Pest and Disease Prevention Tips

**Keep plants widely spaced** to help prevent problems that are encouraged by moist conditions, such as slugs and mildew diseases.

**Avoid growing spinach where beets or chard were grown** in the previous season. These crops are closely related to spinach, make similar demands on the soil and host the same soilborne diseases.

**Gently squash leaf miners** with your fingers or remove infested leaves. Spinach leaf miners are the larvae of small flies that make meandering pale tunnels as they feed inside spinach leaves. Where pressure is serious, use row covers to exclude the flies.

**Pull back mulch to limit slug habitat**, and trap them under boards or with beer-baited pit traps. Slugs make holes with clean edges in spinach leaves.

**Pull up plants** that show distorted new growth accompanied by yellowing of older leaves. Aphids and leafhoppers can transmit viral diseases to spinach.

**Hybrids offer genetic resistance against downy mildew.** Especially in the Southeast, downy mildew causes gray patches on affected leaves.

## Growing Tips

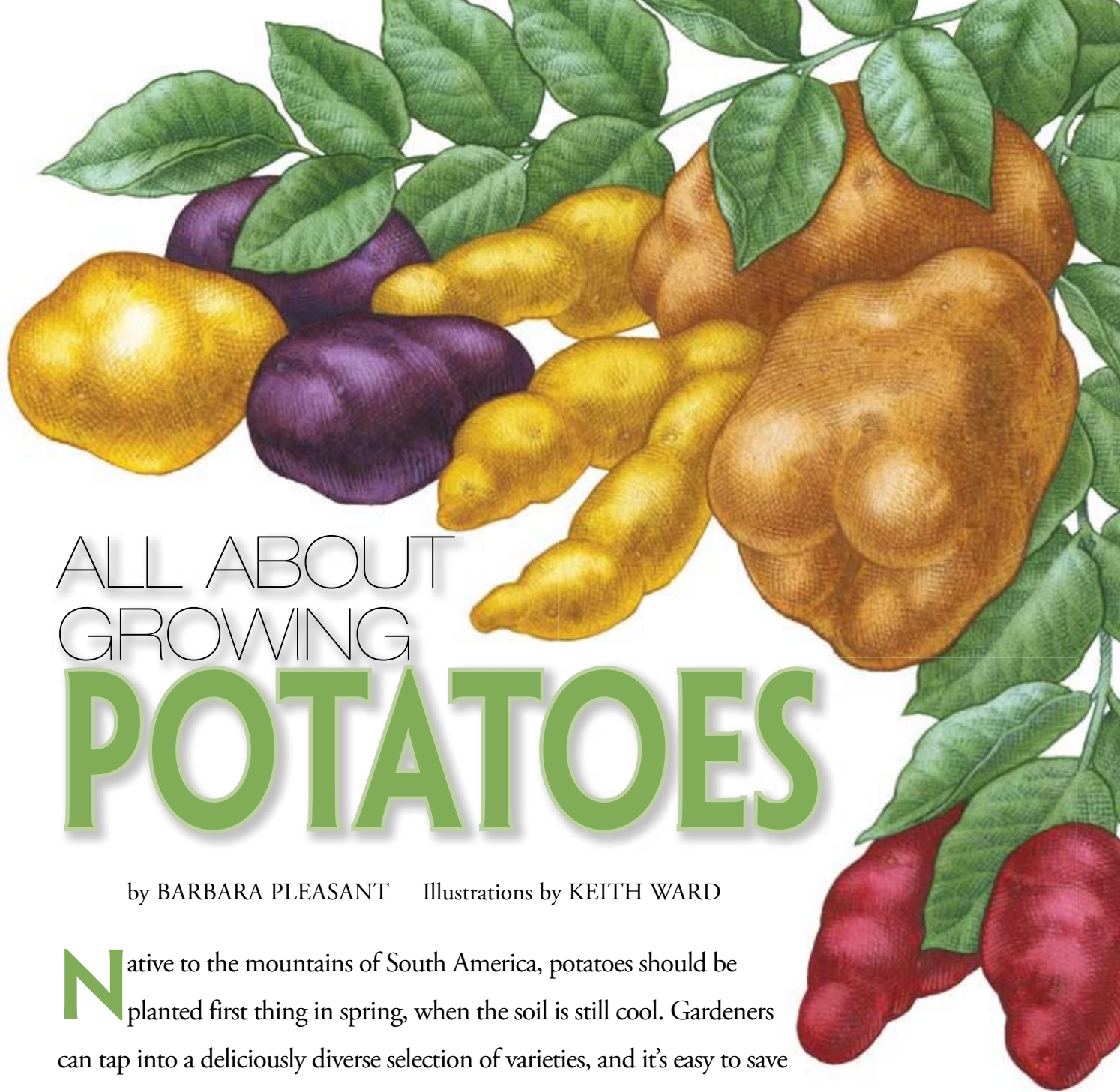
**Fertilize overwintered plants** with a thorough drench of a fish-based fertilizer after they show new growth in spring. In spring, spinach often starts growing before the soil is warm enough to release enough nitrogen to meet the plants' needs. Spinach requires soil with a near-neutral pH, and germinates best when the soil ranges between 55 and 65 degrees.

**Clip off old leaves** as they turn yellow to reduce demands on the plant for nutrients and moisture.

**Wait for frost to harvest** your main fall crop. Exposure to cold increases the production of sugars in spinach leaves, which serve as natural antifreeze and taste great.

**Use frames or tunnels** to protect winter spinach from accumulated ice and snow as far north as Zone 4. Plants that receive winter protection will begin growing again early in the spring. 🌱





# ALL ABOUT GROWING POTATOES

by BARBARA PLEASANT Illustrations by KEITH WARD

**N**ative to the mountains of South America, potatoes should be planted first thing in spring, when the soil is still cool. Gardeners can tap into a deliciously diverse selection of varieties, and it's easy to save and replant your favorite varieties from one year to the next.

## Types to Try

Potatoes vary in size, shape, color, texture and time to maturity. Maturation time is the most important variable, because potato tubers grow best when soil temperatures range between 60 and 70 degrees Fahrenheit. Try to get your crop harvested before hot summer temperatures arrive.

**Early varieties** that mature in less than 90 days are good fits for any garden. Creamy, round 'Irish Cobbler,'

purple-skinned 'Caribe,' and prolific 'Red Norland' fall into this group, along with 'King Harry,' which is resistant to Colorado potato beetles.

**Midseason varieties** mature in 100 days or so, and include 'Yukon Gold' and 'Red LaSoda,' which is often the top-producing potato in warm climates.

**Late varieties** need 110 days or more of growing time, but they typically produce a heavy set of tubers that keep well in storage. 'Butte' is an all-purpose brown-

skinned potato that performs well when grown in the Midwest; 'Katahdin' and 'Kennebec' rule in the Northeast.

**Elongated fingerling potatoes** vary in their maturation times and come in a range of colors and sizes. None are very early, but late-maturing fingerlings will size up earlier if you presprout the seed potatoes before you plant them.

(To shop for seed potatoes, go to [www.MotherEarthNews.com/Find-Seeds-Plants.aspx](http://www.MotherEarthNews.com/Find-Seeds-Plants.aspx). —MOTHER)





## In the Kitchen

Garden-fresh potatoes are a rare delicacy that can be pan-fried for breakfast, steamed for a lunchtime salad, or served roasted or mashed as a supreme comfort food. An excellent source of vitamin C and iron, potatoes also deliver a range of B vitamins and minerals. Everything goes with potatoes: They pair particularly well with rosemary, onions and garlic, or with any type of roasted meat.

## When to Plant

*In climates with short springs and hot summers*, plant the early and midseason varieties three to four weeks before your last spring frost date.

*In climates with long springs and hot summers*, plant early and midseason varieties three to four weeks before your last spring frost date; plant late-maturing varieties in early summer so they will mature in the cooler fall.

*In climates with cool summers*, plant early, midseason and late varieties two to three weeks before your last spring frost date.

## How to Plant

Prepare the planting bed by loosening the soil to at least 10 inches deep. Potatoes adapt well to acidic soils with a pH below 6.0, which is lower than what is

preferred by many other vegetable crops. Thoroughly mix in a layer of compost or rotted leaves, along with a half-ration of alfalfa meal, soybean meal or another high-nitrogen organic fertilizer (follow label directions). Do not use manure because it is correlated with an increase in rough patches on spud skins.

Two days before planting, cut the seed potatoes into pieces, so that each piece has two to three buds (or “eyes”). Cutting the seed potatoes and letting the cut pieces dry for about two days reduces the risk of rotting. Work carefully if the eyes have already grown into sprouts. Allow the cut pieces to dry in a well-ventilated room. Plant the pieces 12 inches apart in 4-inch deep furrows; cover the seed pieces with 2 inches of soil. Fill in the furrows after the first sprouts emerge.

## Harvesting and Storage

Potato plants die back as they finish making their crop. Begin digging when the foliage starts to yellow and wither. Gently knock off dirt and allow the tubers to dry indoors, covered with dry towels, for a day or two. Take care to protect the tubers from sunlight at all times to prevent greening that may result in bitterness. Store the most perfect tubers in a cool, 50- to 60-degree place to be used as seed potatoes. Eat the “less than perfect” potatoes first, but keep in mind that they won’t store forever. For longer storage, potato slices can be blanched and dried. A pressure canner must be used to can potatoes.

## Saving Seeds

Occasionally potatoes produce true seeds, but they are easiest to propagate by

## Pest and Disease Prevention

Problem	Description	Controls
Colorado potato beetle ( <i>Leptinotarsa decemlineata</i> )	Yellow and black striped beetles lay orange eggs on leaf undersides. Brick red larvae eat leaves and flowers.	Resistant varieties (‘King Harry’), row covers, straw mulch, crop rotation, hand picking, spinosad.
Slugs and snails	Soft-bodied mollusks, with or without shells, chew holes in leaves at night or during rainy weather.	No evening watering, hand picking, trapping, encouraging ground beetles and other natural predators with enhanced habitats, practice delayed or reduced mulching.
Flea beetles ( <i>Epitrix cucumeris</i> )	Tiny black beetles chew numerous small round holes in leaves. Second generation may tunnel into tubers.	Tolerate light damage, or use spinosad to control serious infestations.
Scab ( <i>Streptomyces species</i> )	Soilborne bacteria cause corky patches to form on potato skins. Affected potatoes are good to eat, but less than beautiful.	Rotate with nonrelated crops, maintain constant soil moisture, use resistant varieties, do not use any kind of manure.
Early blight ( <i>Alternaria solani</i> )	Widespread fungal disease causes brown spots to form on leaves. Encouraged by wet weather and the presence of mature, failing plants.	Maintain wide spacing and use drip irrigation to keep leaves dry. Harvest plants before the disease becomes severe.
Late blight ( <i>Phytophthora infestans</i> )	Devastating fungal disease encouraged by mild, wet weather; causes leaves to wilt and turn brown within a few days.	Resistant varieties; early planting, wide spacing to help keep leaves dry.

replanting the actual potatoes. If you are a new gardener, start with certified disease-free seed potatoes. Resist the urge to eat several pounds of perfect, medium-sized potatoes—they will be great for planting the following year. Most experienced gardeners experiment with varieties and eventually assemble a collection of favorites. About 6 pounds of seed potatoes are needed to plant 50 feet of row—yield will vary from 75 to 125 pounds.

## Growing Tips

**Buy interesting-looking potatoes** if you see them in stores. If you love the way they taste, save a couple and use them as seed potatoes in the spring. In rural areas, farm supply stores sell seed potatoes of varieties known to produce well under local conditions.

**Get an earlier crop** by presprouting your seed potatoes indoors. Presprouted seed pieces will mature up to a month ahead of seed pieces bearing dormant eyes. Five weeks or so before planting, spread out your seed potatoes in a single layer in a warm, well-lit room, and wait for them to sprout from the eyes. Presprouted potatoes are fragile, so be careful when handling them. Large sprouts that break off of the parent potato often will grow when planted in moist soil.

**Fertilize in halves**, with half of the fertilizer mixed into the soil before planting, and the rest used if needed as a side dressing when the plants are 12 inches tall, just before piling on mulch or hilling up soil around stems (to prevent sunburned spuds).

**Use old blankets** to protect newly emerged potatoes if late frosts are forecast. Once the blankets are removed, the stems will pop back up within a day. (If nipped back by frost, potatoes will re-grow from secondary buds.)

**Mulch plants heavily** with weathered leaves or straw to keep the soil moist and protect tubers from sunlight. In slug-prone seasons, hill up loose soil over the bases of the plants instead of mulching.

**After harvesting the potatoes** in the early stages of summer, plant the vacated space with beans or squash, or with a cover crop of buckwheat. 🌱



# ALL ABOUT GROWING BEANS

by BARBARA PLEASANT Illustrations by KEITH WARD

**D**ependable and easy to grow, beans produce rewarding crops in a wide range of climates. Grown during the warm summer months, beans may produce crisp green pods, protein-rich beans, or both, depending on variety.

## Types to Try

**Snap beans**—the most popular garden beans—include bush and pole varieties, which vary in shape, size and color. Tender filet beans are a type of green snap bean with stringless, slender, delicate pods. They are grown just like other snap beans.

**Dry soup beans** grow like snap beans, but the immature pods stay tender for only a few days as the plants hurry to produce mature seeds. They are very easy to dry.

**Scarlet runner beans** produce showy clusters of red blossoms that attract hum-

mingbirds and bumblebees. You can eat the young pods like snap beans, or let the pods dry and harvest the mature beans.

**Lima beans** stand up to humid heat and heavy insect pressure, which makes them a fine bean for warm climates.

**Yard-long, or asparagus, beans** are grown for their long, slender pods, which are harvested at 12 to 18 inches long. Pods may be green, burgundy or streaked.

**Tepary beans**, a type of dry bean, were developed by the native people of

the Southwest, so they're well-adapted to desert conditions. They come in various colors.

## When to Plant

Bean seeds germinate best when soil temperatures range between 60 and 70 degrees Fahrenheit. In spring, sow seeds in fertile, well-worked soil starting on or after your last frost date. When growing fast-maturing bush snap beans, make additional plantings at three-week intervals until midsummer.



## In the Kitchen

Kids of all ages love to munch garden-fresh green beans, especially sweet and tender filet types. Extra green beans are easy to blanch and freeze, and rehydrated dried snap beans taste almost as good as fresh ones. Gather some of your soup beans at the mature green stage to use in succotash and other summer dishes, and dry the rest for winter. Green beans are a good source of fiber and vitamins A and C, while dry beans are rich in B vitamins and minerals. Team up beans with grains (such as rice or corn) to get prime protein from both foods, as beans and grains contain complementary essential amino acids.



## How to Plant

Prepare the planting bed by using a garden fork to loosen the soil. Mix in a 1-inch layer of mature compost. Plant seeds 1 inch deep and 2 to 4 inches apart. Thin bush beans to 4 inches apart; thin pole beans to 6 inches apart. Wide double rows (two parallel rows of beans planted 12 to 14 inches apart) are the most space-efficient way to grow beans.

## Harvesting and Storage

Harvest green beans when they are young and tender, and use two hands when picking to keep from breaking the brittle plants. Most bush beans will produce a second or third flush of beans

after the first one is picked. Harvest pole beans at least twice a week to keep the plants productive. The mature beans of all snap bean varieties usually make good soup beans.

Allow dry beans to stay on the plants until the pods turn tan and the beans inside show good color and a hard, glossy surface. If damp weather sets in just when your beans should be drying, pull up the plants and hang them in a dry place until they are dry enough to shell and sort. Allow your shelled beans to dry at room temperature for two weeks before storing them in airtight containers. If you think insects might be present in your stored beans, keep them in the freezer.

## Saving Seeds

To save dry beans for replanting, select the largest, most perfect seeds from your stored beans. With snap beans, it is best not to harvest beans from plants grown for seed production. That way, the plants will channel all their energy into big seeds that will grow into big seedlings. Be patient, because snap bean varieties that have been bred to stay tender for a long time are often slow to develop mature seeds. Under good conditions, bean seeds will store for at least three years. A packet will plant about 25 feet of row, which should produce 20 to 30 pounds of bush snap beans, or 40 pounds or more of pole beans. Expect about 1½ pounds of dry beans from a 25-foot row.

# Beans at a Glance

Type	Description	Varieties
Snap beans ( <i>Phaseolus vulgaris</i> ) 50 to 55 days bush; 50 to 67 days pole	A great beginner crop, snap beans seldom fail. Try bush and pole types, which also vary in pod shape and color.	'Provider' bush, 'Royal Burgundy' bush, 'Fortex' pole, 'Kwintus' pole
Dry soup beans ( <i>Phaseolus vulgaris</i> ) 55 days green; 85 days dry	As easy to grow as bush snap beans, these bush beans are even easier to store. Many varieties can be enjoyed as green beans, fresh shelled beans, and dry beans.	'Tiger's Eye,' 'Jackson's Horticultural,' 'Cherokee Wax,' 'Flagolet'
Scarlet runner beans ( <i>Phaseolus coccineus</i> ) 60 days green; 90 days dry	Top edible ornamental attracts pollinators and bears edible pods followed by big, colorful dry beans. Best in climates where summers are not extremely hot.	'Scarlet Emperor,' 'Painted Lady'
Lima beans ( <i>Phaseolus lunatus</i> ) 75 days bush; 85 days pole	Limas need heat to produce well and stay on schedule. Green baby limas are tedious to shell, but dry lima beans shell easily.	'Dixie Butterpea' bush, 'Fordhook 242' bush, 'Christmas' pole, 'Sieva' pole
Yard-long beans ( <i>Vigna sesquipedalis</i> ) 80 days	Related to southern peas, yard-long (asparagus) beans need plenty of warm sun. Harvest pods when they are the diameter of a pencil. Older pods become pithy.	'Mosaic,' 'Red Noodle,' 'Green Pod'
Tepary beans ( <i>Phaseolus acutifolius</i> ) 80 to 90 days	Drought-tolerant plants produce beans that may be flattened or plump. Bean color varies with variety, and can be white, brown or speckled with blue.	'Milta Black,' 'Blue Speckled,' 'Sonoran' (all bush or semi-bush)

## Pest and Disease Prevention Tips

- Brick-colored Mexican bean beetles sporting black spots often lay clusters of yellow eggs on leaves, which hatch into yellow larvae that rasp tissues from leaves. Handpick this pest in all life stages, and try spraying neem oil to control light infestations. In large plantings of more than one-fourth of an acre, releasing beneficial *Pediobus* wasps is a worthwhile strategy.
- Beans grown in sites that recently supported grasses are often sabotaged by night-feeding cutworms. Diatomaceous earth sprinkled over the soil's surface can help reduce losses.
- Several fungal and bacterial diseases cause dark spots and patches to form on bean leaves. To keep from spreading diseases among plants, avoid working in your bean patch when foliage is wet.
- Promptly cut down and compost plants that are past their prime to interrupt the life cycles of pests and diseases.

## Growing Tips

- Extend your harvest of bush snap beans by planting them two or three times, with each sowing three weeks apart. In warm climates, make a sowing in late summer, about 10 weeks before your first fall frost is expected.
- Grow more beans in less space by growing pole varieties, which produce more per square foot by making good use of vertical growing space. Tall bamboo poles or saplings make easy tripods to support pole varieties.
- Be stingy with fertilizer. Beans benefit from fertile soil with a slightly acid pH (between 6.0 and 6.5), but once they are up and growing, beans make most of the nitrogen they need (which they use to nurture their crop of seeds). When growing beans in a new garden site, inoculating seeds with nitrogen-fixing bacteria before planting can help kick-start this process. Even simpler, scatter a few spadefuls of soil from last year's bean patch into new planting sites.
- Use bush beans as a cover crop in warm summer weather. You can turn the plants under, or pull them up and compost them. 🌱