Seeds • Plants • Bulbs
Non-GMO • Heirlooms • Organics

FREE SHIPPING ON ANY $100+ ORDER VALID THRU APRIL 1, 2021

Respected For Quality, Value & Service

www.JUNGSEED.com 800-247-5864
FOR PRIDE.
FOR HOME.

We get it. It’s a lot of work caring for your little piece of the world. But that’s the point: it’s yours. And for more than 95 years, Gordon’s® has helped folks take care of their homes, gardens and animals.

GordonsUSA.com
FEATURES

EDIBLES

48
TAKE THE INSTAGRAM CHALLENGE!
Your beans can be Internet idols while your tomatoes are worshiped worldwide.

56
GO WITH THE GRAIN
Whether for breads or bragging rights, you’ll get a rise out of growing grains.

INTERIOR DESIGN

66
COLORFUL INSPIRATION
To enjoy your garden year-round, bring nature’s hues indoors to your walls.

ORNAMENTALS

72
GREEN ENVY
Fun and fashionable, foliage bouquets fit in anywhere.

LANDSCAPING

86
BUILDING THE BONES OF A PLACE
How to use trees and shrubs to add structure and form to your property

INDOOR GARDENING

94
FORCING THE ISSUE
Weary of winter? Bring on spring with indoor blooms!

COOKING FRESH

100
PRESERVE YOUR HARVEST THE TASTY WAY!
Whether you grow your own or reap the bounty of a farmers’ market, put aside a portion to make these peak-season specialties.

104
THE 2020 SWEET POTATO RECIPE CONTEST WINNERS

Vining Veggies!
No space to spread? Grow up instead.

The Plants that Get Away
Once you say “hello” to these invasive thugs, you may never get to say “good-bye.”
Trust the company with over 95 years of lifestyle and country living expertise to help you find your ideal property.

**IDEAL HOBBY FARM** #41019-20062 | $159,900
- 3-BR, 2-BA Country Home
- Set for Animals, Row Crop
- Original Hardwood Floors
- 7± Acres
- Updated Kitchen
- Friendship, TN

**ROOM TO ROAM** #03016-05015 | $449,000
- 3-BR, 2-BA Country Home
- 21± Acres
- Barn & Chicken House
- 2 Ponds, Creek
- Guest House
- Winslow, AR

**PEACEFUL COUNTRY LIVING** #14022-00073 | $299,000
- 4-BR, 2-BA Ranch Style
- 20± Acres
- Finished Basement
- Fruit Trees, Patches
- Outbuildings
- Clearfield, IA

**RURAL COUNTRY CHARM** #23042-33476 | $259,500
- 3-BR, 4-BA Rural Home
- 6 Acres
- Rustic Style Exterior
- Fully Updated Interior
- No Restrictions
- South Summit, MS

For information on thousands of properties nationwide

- **CONTACT US TODAY** -

800.999.1020 ext 110 UnitedCountry.com
DEPARTMENTS

7 EDITOR’S NOTE
TOGETHER, WE LEARN A LOT!

10 GARDENING TRENDS
WE'RE PLANTING EVERYTHING UNDER THE SUN IN 2021!

20 ECO-GARDENING
NATIVE PLANTS TO THE RESCUE!
How to use wildflowers and indigenous species to encourage insects and discourage pests

24 DO-IT-YOURSELF
DYEING FOR COLOR
Even if you don't knit, felt, or craft with natural fibers, plants used for dyeing may thrive in your beds.

32 DO-IT-YOURSELF
GOING UP!
When space is limited, go vertical!

36 BASIC TECHNIQUES
THE RAISED BED HEAT SINK
A passive-solar solution to extending the season

40 THE PASSIONATE
GARDENER
SMALL GARDEN, BIG FLAVOR
Containers keep vegetables coming year-round.

44 BASIC TECHNIQUES
NOW, THAT’S A BIG TOMATO!
Six tips for growing your own prizewinners

108 PRODUCT GUIDE
GADGETS & GEAR FOR GARDENERS

110 SOIL MATTERS
5 WAYS TO TEST YOUR SOIL
Use labwork and natural clues to grow better plants.

112 ALMANAC ADVICE
WHAT’S WRONG WITH MY HOUSEPLANTS?
GOOD IDEAS FOR INDOOR HOUSEPLANTS

113 ALMANAC ADVICE
FLY, AWAY!
Leave it to the Victorians to find a delicate way to eliminate annoying insects.

114 ALMANAC ADVICE
GARDENING BY THE MOON

116 ALMANAC ADVICE
pH PREFERENCES OF TREES, SHRUBS, FLOWERS, AND VEGETABLES

118 ALMANAC ADVICE
FROSTS & GROWING SEASONS

120 LAST WORD
INVOCATION FOR 11 TOMATOES
DISCOVER THE SECRET TO PERFECTLY GRILLED FOOD

POWERFUL PERFORMANCE
Perfectly sized for family grilling with cooking temperatures that exceed 550°F.

FLARE-UP FREE
A hidden element redirects grease and juice into the drip tray preventing flare-ups.

GRILL YEAR-ROUND
Cook delicious meals from the comfort of your kitchen or while relaxing outside.

HEALTHY COOKING
Quickly transfers heat without depositing unwanted material or chemicals onto your food.

COOKWITHKENYON.COM | 860.664.4906
EDITOR’S NOTE

TOGETHER, WE LEARN A LOT!

GARDENING IS LEARNING, LEARNING, LEARNING.
THAT’S THE FUN OF THEM. YOU’RE ALWAYS LEARNING.

–Dame Helen Mirren, English actress (b. 1945)

Here at The Old Farmer’s Almanac, where this Garden Guide is produced, we love to garden. Although our staff members have different ages, home lives, and gardening spaces, we do have one common “ground”: growing! If it’s gardening, you name it and we do it. We love getting our hands in the soil (or hydroponic solution!) and talking about it—among ourselves and especially with you.

This is essentially how the “plot” for every Garden Guide gets designed. For example, casual chats and meetings become the roots of articles about sharing vegetables via Instagram (page 48) and foliage bouquets (page 72). Fresh ideas from talks with gardening organizations, Cooperative Extensions, and folks like you produce stories on vertical planters (page 24) and how to paint in plant colors (page 66).

We treasure the input received through Almanac.com from thousands of you. For one thing, you want to grow food—lots of food!—so in this edition you’ll find vining veggies (page 62), how to grow grains (page 56), and, of course, tomatoes (page 44). Just think: This is but a fraction of what’s growing within these pages.

Creating this Garden Guide is indeed like cultivating a garden. Every story starts as the seed of a concept and then gets the care and nurturing needed to develop into tantalizingly good food for thought and action.

Whether you already love gardening or have never tended a plant in your life, we believe that you’ll learn a lot from the bounty of useful information herein—and we hope that you have fun along the way. For much more, check out Almanac.com/Gardening, where you can also sign up for our free email newsletter full of advice, encouragement, and ideas.

Thanks again for your ongoing assistance . . . and now, I need to go do some watering!

–Janice Stillman

P.S. Do you have a story idea or comment that you’d like to plant with me for our next edition? I’d love to hear from you at Almanac.com/Feedback!

Photo: nicolas/Getty Images. Opposite: Anton Chernov/Shutterstock
I have developed the world’s best soil nutrient!

One of God’s greatest gifts to me is a tremendous curiosity and love for the soil. My formal and informal education have taught me so much about soil types, structure, physics, chemistry, and biology. All life on this Earth comes from the soil, water, and sun. Most disease comes from an imbalanced soil. Since the advent of chemical fertilizers and genetic engineering (byproducts of the two World Wars), industry has focused only on greater yields and has neglected the most important part of our foods and feeds: NUTRITIONAL CONTENT.

Our overuse of chemical fertilizers and pesticides has imbalanced our soils, killed the micro life, and depleted what is most critical to life: minerals and trace minerals. My research has shown that soils and plants need those missing nutrients to perform their best. Soils respond to my product like a sick child responds to chicken soup, so I’ve named this product Chicken Soup for the Soil™. Now it is true that other companies have blended quality additives for the soil, amino acids, ancient seabed deposits, sea solids, soluble seaweed, organic acids like humic and fulvic, alfalfa, and other herbal extracts. However, the most important factor of our product is a discovery I made while blending these ingredients …

I made a serendipitous discovery of how to react these individual ingredients into an homogenous product that will not wash out of the soil. We call the tiniest colloidal droplets of Chicken Soup “micro clusters.” We don’t call our product organic or natural, although it is carbon bound (which is the true definition of organic) and all of our ingredients are naturally sourced. We call it “biologically correct” because our product stimulates the life in the soil and supplies all the nutrients commercial fertilizers neglect.

A healthier soil ecosystem will help you grow higher-quality crops that have more color, better taste, less disease and bug infestations, a longer shelf life, and increased nutritional value. Chicken Soup for the Soil™ is non-leaching, non-toxic, and contains everything the soil microbes need to proliferate and feed the plant. There is nothing else like it.

Our factory in Idaho has the ability and capacity to manufacture this product in quantities for agriculture and packaging capability for the home and garden markets. Watch for it at your local home and garden store or contact us on our website, DrJimZ.com. You will not regret it.

Thank you for your business!

Jim Zamzow
17-ft tall Tomato Plant - produced over 200-lbs of fruit.
NO pesticides were used, GMO-Free, NO added Chemicals

Prepare For Spring Planting & Use Dr. Jim Z in 2021!
Best Natural Fertilizer On Earth

- Grow higher-quality fruits and vegetables with more color, better taste, and less bug infestations and disease.
- Contains all the elements in the periodic table (sea nutrients, amino acids, humic, fulvic, and other herbal extracts).
- All natural, toxin free, and bioavailable. Works On Herbs!
- Non-leaching formula / nutrients accumulate over time.
- Perfect for Gardeners, Growers, and Farmers.

Commercial Quantities Available (Barrels, Totes, and Tankers)

Visit www.DrJimZ.com
WE’RE PLANTING EVERYTHING UNDER THE SUN IN 2021!

Social distancing has spawned unprecedented interest in nurturing all forms of plant life and connection with the creatures that thrive in the air and underfoot.

COMPiled by STACEY KUSTERBECK

CONNECTING WITH NATURE

Our gardens are getting bigger, in both square footage and the purpose they serve. “People are thinking more of their landscape as an ecosystem with all life connected,” says Wendy Wilber, an environmental horticulturist at the University of Florida. Every inch of available space is being examined for what it can do for us—and for Mother Nature.

“Both new and experienced green thumbs realize that valuable space can be used for everything from growing food to attracting pollinators to filtering rainwater,” says Tara Nolan, author, Gardening Your Front Yard (Cool Springs Press, 2020).

“There is an overall trend toward SELF-SUSTAINABILITY and also stewardship,” says Linda O’Keeffe, author, Inside Outside (Timber Press, 2019).

CLEMATIS: CLIMBING INTO GARDENS EVERYWHERE

Clematis have a reputation as fussy plants, but new varieties get established more quickly than older ones due to stronger root systems and better flower production. Spring Hill Nurseries suggests:

• double-blooming: ‘Chloe’, a nonvining bushy variety with purple-blue flowers
• double-petaled: ‘MARIA SKLODOWSKA CURIE’

GROWING KNOWLEDGE

Gardeners are upping their expertise. “There’s a robust renewed interest in botany and the science of how plants work,” says Leslie Halleck.

One intangible result: “Knowing that a seed will develop into a plant which then flowers and fruits in a predictable sequence is comforting,” says Joel Flagler, professor and agricultural agent at Rutgers University Cooperative Extension.
**ROSE TIPS THAT REALLY WORK**

Whether your roses grow in containers or the ground:

- If deer are a problem, plant **LAVENDER** at the base of rosebushes. Deer are attracted by rose scent, and lavender muddies the rose aroma.
- Scratch in ½ cup of rabbit food pellets around each rose and water well. It includes alfalfa meal, which supplies a growth stimulant, nitrogen, and trace elements to roses.
- Epsom salts make flower colors more intense. Scratch 2 tablespoons of the salts into the soil around a rosebush for best effect.

-Almanac.com

---

**THE FUTURE IS ROSY—AND COZY**

Gardeners are seeking rose varieties that go easy on them. “People do not want to use pesticides and fungicides and are glad to have trouble-free roses,” according to Bob Osborne, author, *Hardy Roses: The Essential Guide for High Latitudes and Altitudes* (Firefly Books, 2020).

Roses are finding snug spots in containers and raised beds. “Increasingly, customers are growing stunning rose combinations on balconies and patios and in small spaces,” says Kelly Funk, president, Jackson & Perkins. Funk says that roses are sharing space with other sun-loving varieties . . .

- **in containers:** Compact roses—for example, ‘**SUN SPRINKLES’**, ‘Hot Tamale’, and ‘Cinnamon Girl’—pair with lantanas, heliotropes, summer snapdragons, and verbenas that fill in. Climbing roses go well with clematis (which uses the structure of the climbing rose as a trellis); for instance, ‘**TANGERINE FLAMES’** rose works with ‘The Countess of Wessex’ or ‘Henryi’ clematis.
- **in raised beds:** ‘Mango Tango’ agastache, ‘Anouk’ French lavender, and ‘Denim ’n Lace’ Russian sage provide visual interest in summertime, when roses aren’t as showy. (continued)
WELCOME, BENEFICIALS!
Pollinator gardeners are attracting more visitors by . . .
• choosing plant species that support certain types of butterflies (MILKWEED FOR MONARCHS) and “specialist” bees (native asters for Andrena asteroides, spring beauties for A. erigeniae, false indigo for Colletes albescens, and phacelia for A. phacelia)
• making the drip line of trees a “no-walk, no-mow” zone by planting the area with ground covers or shrubs (to allow caterpillars to spin cocoons and pupate to complete their life cycle)
• swapping white outdoor lights (which exhaust beneficial insects) for yellow LED bulbs


EASY DOES IT
“Gardens and landscapes are stepping away from formal planting styles and embracing a NATURALISTIC FEEL,” says Leslie Halleck, author, Plant Parenting (Timber Press, 2019).

What’s growing: native plants that are resilient to bouts of extreme heat, cold, drought, or excessive rainfall.

How they’re growing: through organic cultivation methods that promote wildlife, water quality, and soil health.

AS A RESULT OF THE MAYORS’ MONARCH PLEDGE, 119 ACRES OF MONARCH HABITAT HAVE BEEN CREATED IN MANITOBA AND ONTARIO.

GOING WILD?
Seek safe, satisfying, nutritious, edible “weeds,” such as . . .
• LAMB’S-QUARTER: Look for bluish-green leaves that appear to be dusted with powder; use shoots and leaves in salads, cook mature leaves like spinach; it’s loaded with calcium.
• PURSLANE: Use its fat, succulent leaves and stems raw or cooked in salads or stir-fries; contains heart-healthy omega-3 fatty acids.
• COMMON CHICKWEED: Find it in shady/moist areas and toss its pairs of tiny leaves in salads; it’s packed with phosphorus, calcium, and iron. Don’t eat it if you don’t know what it is!

FORAGE AHEAD!
Folks are paying closer attention to their natural surroundings—and this includes food that’s growing in plain sight. “There is a strong desire to learn how to identify, harvest, and process edible wild plants and mushrooms,” says Mike Krebill, author, The Scout’s Guide to Wild Edibles (St. Lynn’s Press, 2016). Fledgling foragers are posting photos of mystery plants on social media or using field guides, apps, blogs, or Web sites to ID their finds. (continued)
Responsible Solutions For Home & Garden

The dangers of **tick-borne diseases** are on the rise.

Summit®

**Tick & Flea Spray**

For a long lasting control of ticks and fleas, treat lawns, shrubs and trees surrounding your home.

- Quickly kills Ticks & Fleas — including Deer Ticks (which carry Lyme Disease).
- Spray tick habitats such as the yard perimeter, shady perennial beds and weedy, bushy areas.
- Available in ready-to-spray hose-end bottle or easy mix concentrate for your own sprayer.

*Prevention is your best defense.*

Professional Mosquito Control for the Homeowner!

**Kills Mosquitoes That Transmit**—**WEST NILE VIRUS & EEE VIRUS**

**Mosquito Dunks®**

- America’s #1 biological mosquito control — contains BTI.
- 100% natural & biodegradable.
- Use in bird baths, planters, rain barrels, fish ponds — in any standing water.
- Harmless to animals, fish, birds, honey bees, or plants.
- Use for long term control — 30 days or more.

**Mosquito Bits®**

- 100% effective biological mosquito control utilizing BTI.
- Harmless to people, pets, plants, and honey bees.
- Granular for broad coverage and quick results.
- Also kills FUNGUS GNAT larvae!

For maximum mosquito control use with Mosquito Dunks®

Summary... responsible solutions... 800.227.8664  SummitResponsibleSolutions.com

*Summit... responsible solutions®, Year Round® Spray Oil, Mosquito Dunks®, and Mosquito Bits® are registered trademarks of Summit Chemical Company.*
GARDENING TRENDS

THE TREND IS TROPICAL

“People are gravitating to indoor gardening for aesthetics, for the health benefits, and as a hobby,” says Michael Wylie, merchant for live goods at The Home Depot Canada. TROPICALS and succulents are top choices.

“There’s a spike in interest in any plant that looks or seems ‘tropical,’” says Randy Schultz, HomeGardenandHomestead.com. Gardeners are choosing tropical-looking plants that can actually grow in colder climates, such as cold-hardy banana plants, passion flowers, hardy ferns, and pindo palms.

A TASTE OF THE TROPICS

The orange-yellow, pectin-packed fruit of the PINDO PALM can be eaten raw or in jelly or wine, giving the plant its other names: jelly palm and wine palm.

LET’S GROW INDOORS!

Home owners are installing LIVE GREEN PLANT WALLS and indoor growing systems. “There is lots of interest in in-house systems, both for seedling development and production,” says Mark Lefsrud, Ph.D., associate professor of bioresource engineering at Montreal’s McGill University.

“High-end terrarium/aquarium combinations and indoor ecosystems under glass are the new ways to liven up dark apartments and condos,” says Jimmy Turner, executive director of Red Butte Garden in Salt Lake City, Utah.

HOW MUCH IS 5 GALLONS OF FOOD?

Here’s what you can grow in a 5-gallon bucket:

• 1 broccoli plant—try ‘De Cicco’ or ‘Green Comet’
• 1 eggplant—try ‘BLACK BEAUTY’, ‘Ichiban’, or ‘Slim Jim’
• 1 cherry tomato plant—try ‘Sungold’, ‘Sun Sugar’, or ‘Chadwick’
• 1 beefsteak tomato—try ‘Atlas’ or ‘Mortgage Lifter’

–Almanac.com

EDIBLES ARE EVERYWHERE

• In containers: “Whether you’re renting or have a sunny but paved space, growing your own food is possible if you learn how to do it in pots,” says Claire Ratinon, author, How to Grow Your Dinner (Laurence King, 2020).
• In raised beds: “Raised beds work well in small and large spaces, and they can be put on bad or rocky soil,” says Linda O’Keeffe.
• On windowsills: PanAmerican Seed’s KITCHEN MINIS series tomatoes and peppers were bred to bloom and ripen in small pots and lower light conditions, allowing you to have fresh veggies at any time of year.
• In whiskey half-barrels: “They can be planted up with large-foliaged plants like caladium and elephant ears, plus a dazzling assortment of favorite flowers. There is even room for a cherry tomato and some large herbs like basil and rosemary.” –Joel Flagler
• In 5-gallon plastic buckets, with drainage holes
BECAUSE WE SEDGE SOW
Attractive and easy-care ground cover sedges include:
• emerald green BRIISTLE-LEAVED SEDGE (Carex eburnea)
• spring-flowering white-tinged, or oak, sedge (C. albicans)
• frondlike palm sedge (C. muskingumensis)
Avoid yellow nutsedge (Cyperus esculentus), a resilient weed that resembles grass.

GROUND COVERS ARE GAINING GROUND
• for quickly-spreading color: ‘HAPPY CHAPPY’ ROSE
• for between pavers: mother of thyme perennial
• for shady spots: baby blue eyes, aka nemphilia, tender perennial
• for a patriotic look in the U.S.: red, white, and blue varieties, grown together—red mother of thyme, jumbo snow-in-summer (Cerastium tomentosum), and hardy PLUMBAGO (Ceratostigma plumbaginoides)

PAMPER YOUR PEPPERS
To pick a peck, remember that peppers:
• need 8 hours of direct sunlight.
• easily succumb to wet feet.
• require sweet soil, with a pH between 6 and 8.
• like soil high in organic matter and phosphorous (bonemeal works well).

CALLING ALL POLLINATORS!
Gardeners are finding ways to benefit nature and the harvest by planting EDIBLES among in-ground PERENNIALS and surrounding small raised vegetable beds with blossoming plants. Pollinators, attracted to the flowers and shrubs, then pollinate fruit and veggie plants. Learn which native plants bring beneficial insects into the edible garden on page 20. (continued)
BY THE NUMBERS

U.S. GARDENERS
• 9% converted at least part of their lawn to a natural or wildflower area
• 14% purchased at least one plant because it is native to their area
• 25% bought at least one plant because it benefits bees, butterflies, or birds

–2020 National Gardening Survey

CANADIAN GARDENERS
• 29% grow mainly edibles
• 26% believe that their plants are better than their neighbors’
• 11% say that their plants are worse than their neighbors’
• 12% visit garden centers several times a month

SUPER-SMALL IS PRETTY BIG

Plant species and cultivars that stay very compact at maturity are in demand to display in homes and workspaces. “There are plenty of low-humidity tiny plants that can reside on your windowsill, plus high-humidity species that make the perfect addition to small glass cases or terrariums,” says Leslie Halleck.

Right now, we want micro-orchids, miniature ferns, teeny begonias, MINISCULE SUCCULENTS, and micro–African violet cultivars—and we want them displayed in tiny handmade pots.

TERRARIUM TIPS

In a clear container, layer in this order:
• pebbles, small river stones, or the expanded clay balls used in hydroponics (for drainage)
• charcoal (additive-free activated, horticultural, or lump)
• well-draining potting soil (to prevent compaction and saturation)
• decor (wood, rocks, or other items)
• miniature plants

Handy planting tools include a spoon and long-handle tweezers or chopsticks (for narrow-mouth containers).

–Almanac.com

WANTED: SPEEDY SEEDS

Novice growers want quick results. “Fast-growing veggies distract new gardeners who are waiting for the rest of the garden to catch up,” says Garden Media Group’s Katie Dubow. She says that new gardeners are often impatient about how long it takes to get something to mature, so they are planting at least some quick-harvesting varieties.

• for seed-to-plate in under a week: microgreens and sprouts
• for seed-to-plate in under 50 days: ‘Prizm’ kale, Baby Leaf Zesty Mesclun Mix, FRENCH BREAKFAST RADISHES, ‘Seaside’ spinach, ‘Easy Pick Gold’ zucchini

THE NEW COMMUNITY GARDEN

Many backyards are shady, so they’re not ideal for growing food. Often, the sunniest space—the front yard—is no longer off-limits to edibles.

“Growing a well-tended FRONT YARD VEGETABLE GARDEN is a smart way to help yourself and your community,” says Shawna Coronado, author, The Wellness Garden (Cool Springs Press, 2017). (continued)
Great Gardens Start with DR® Rototillers!

- Bust sod and churn through the most compacted ground
- Prepare seedbeds or till garden waste back into your soil
- Full line includes walk-behinds, tow-behinds, and cultivators

Trim and Mow the Easy DR Way!

- TRIM fencelines & perimeters
- MOW waist high grass and weeds
- 5X the power of handheld trimmers
- Self-propelled models
- Gas- or battery-powered

USA ENGINEERED AND BUILT
Assembled in the USA using domestic and foreign parts.

GoDRpower.com
Request your FREE PRODUCT CATALOG
Online or Toll-Free at 877-202-1315

SALE
FREE SHIPPING
EASY FINANCING
Some limitations apply. Go online or call for details.
(MANY) MORE TREES, PLEASE!

“Even with the smallest of yards, doorsteps, or balconies, you have the opportunity to enjoy a tree of your own,” says Kevin Hobbs, author, The Story of Trees (Laurence King, 2020). All can be managed in containers with some effort and deliberate pruning, including these compact varieties:

- *Ginkgo biloba* ‘PRINCETON SENTRY’, in columnar form
- *G. biloba* ‘Mariken’, low- and slow-growing
- *Liriodendron tulipifera* ‘Little Volunteer’, a dwarf tulip tree cultivar
- *Taxus baccata* ‘Icicle’, a form of yew
- *Ulmus x hollandica* ‘JACQUELINE HILLIER’, a dwarf elm
- *Styrax japonicus* ‘Angyo Dwarf’, aka Japanese snowbell
- *Acer palmatum* ‘RED PYGMY’, a red maple
- *Zelkova serrata* ‘Goblin’, a dense, vase-shape tree

Learn about trees and shrubs in the landscape on page 86.

THREE C’S OF A GARDEN

“A garden is not just a place for plants. It can be a special place for people—for improved *composure*, greater *confidence*, and *coping* abilities,” says Joel Flagler. He recommends that a garden have . . .

- **visual definition**: for example, from tall ornamental grasses and/or upright junipers
- **soothing sounds**: wind chimes and/or a **WATER FEATURE**
- **natural fragrances**: for instance, from heliotrope, mock orange, or wave petunias

FEASTS FOR THE EYES

“We are seeing a spike in edible gardening—vegetables, fruit, herbs, berries,” says Paul Cohen, director of research at the National Gardening Association. Ideas include:

- **hanging baskets**: for example, ‘YELLOW PATIO’ cherry tomatoes
- **perennial fruit and vegetables**: rhubarb, horseradish, asparagus, sorrel, and strawberries. “These crops are the economizers of the kitchen garden as an important supply for our kitchens during the ‘shoulder seasons’ of spring and fall,” says Chicago Botanic Garden’s Lisa Hilgenberg.

- **vining veggies**: for instance, ‘TREASURE ISLAND KAUKURA’, a bright orange sweet potato with deep purple leaves

Learn more about growing up with vining veggies on page 62.

Stacey Kusterbeck is a frequent contributor to Old Farmer’s Almanac publications.
Growing our own food connects us to nature. Gardening is a harmony of soil, sunlight, rain, gardener, and seed. Our gardens are delightful testaments to humankind’s positive relationship with the natural world. We use the earth’s gifts to create beautiful spaces that sustain our nutrition and serenity . . . and then a squash vine borer comes along and makes us question everything!

Pests can be one of the biggest challenges in vegetable gardening. Aphids feed on a plant’s sap, transmitting viruses. Cucumber beetles decimate crops by spreading bacterial wilt while feeding on flowers and fruit. Cutworms chew through plant stems and quickly destroy entire plants.

Signs of pest damage kick off a quest for solutions now and methods for avoiding problems in future. Best management practices like scouting, exclusion nets, natural remedies, and even removing insects by hand are all techniques that gardeners employ in this struggle, and rightfully so because these methods can be effective! But native plants can work just as well or more so.

As gardeners, it is important to always remember that our gardens are interconnected to the ecological world around us. Pests have predators, too. Aphid wasps, ladybird beetles, and lacewing larvae eat aphids. Mason wasps attack cutworms. Green lacewings and assassin bugs wreak havoc on cucumber beetles. Creating habitats so far beyond aesthetics. They have co-evolved with the other plants, animals, fungi, and bacteria as well as the climate, light, and soil conditions in habitats and regions. They provide food, nectar, and shelter for a wide array of important insects. They play meaningful roles in keeping ecosystems stable.

By selecting and planting native flowers and grasses that attract beneficial (aka pest-controlling) insects, you can then bring in native bees and other pollinating insects to crops like cucumbers, squash, pumpkins, blueberries, and strawberries.

These helpful insects can be even more effective when you bring them into close proximity with your vegetable crops. By drawing these insects into the garden, you increase the population and diversity of these valuable assistants.

Placing native plants in or very near your garden—for example, in “pockets” on the edges of a bed or in one or two rows as an insectary strip right through the middle of your garden—improves pest control and your crops’ pollination. Choosing a diversity of plants with different bloom periods will provide continuous flowering throughout the year. For example, mason bees are present in early spring, whereas
bumblebees are present throughout the growing season. Providing an uninterrupted supply of food throughout the year will ensure that they are all happy, and you will enjoy the aesthetic side benefit of yearlong blooming flowers.

When choosing native plants, you’ll find that there are numerous options. Some lettuce farmers in California use sweet alyssum to increase the biological control of aphids. Nonnative annuals and biennials like cilantro, dill, and alyssum grow quickly and are excellent in attracting beneficial insects.

Choose plant species that ideally stand 1 to 3 feet tall at maturity; taller plants may cast shade or fall over into the vegetable rows. In general, native plants can be spaced apart from each other according to their size at maturity.

Correct spacing allows them to be dense enough to suppress weeds while also giving each other room to grow. Use 12-inch spacing for plants less than 24 inches tall, 18 inches between plants 24 and 48 inches tall, and 24-inch spacing for those taller than 4 feet. (The tallest species may be better suited for pocket plantings around the edges of the garden.) Plant guides and tags also often offer great guidance.

Wonderful choices for wildflowers include golden alexanders (Zizia aurea), nodding wild onion (Allium cernuum), prairie sundrops (Oenothera pilosella), and Virginia mountain mint (Pycnanthemum virginianum).

**THE ROOTS OF THE MATTER**

Plant communities have two equally important parts. The aboveground photosynthetic component—the stems, foliage, and flowers—is the obvious one. However, the belowground system of roots and symbiotic fungi and microorganisms is equally important to the community. The structure of root systems is an important piece of how this underground community functions. For example, wildflowers tend to either have a prominent taproot with some side branches or a coarsely fibrous root system. In contrast, grasses tend to have densely fibrous, fine-textured, deep roots that occupy more of the root zone, making them resilient, reliable soil stabilizers.

Because of this structural difference in the root systems, grass communities tend to be more stable and resistant to invasion by weedy species than communities dominated by wildflowers. The diversity and biomass of these root systems improve organic matter, water infiltration, and soil health.

Without question, the most stable herbaceous plant communities contain wildflowers growing within a matrix of grasses typically seen in our native prairies. A good target for native plantings is 20 percent to 30 percent native grasses and 70 percent to 80 percent wildflowers.

In a 30-inch-wide bed that runs the length of a garden, there is sufficient space for two rows of native plants. Group plants of the same wildflower species together, followed by a grass and then another

---

**BEE KIND**

Many of our native bees travel only short distances to find nectar and forage; this makes protecting their habitat in and around the garden important. Approximately 70 percent of native bees nest in the ground, a habitat that can be well protected by undisturbed native plantings. Approximately 30 percent of native bees nest in cavities, such as in wood or plant stems. Leaving native plants’ woody stems erect throughout the winter provides habitat for these cavity-nesting native bees.
The Old Farmer’s Almanac Garden Guide

ECO-GARDENING

A group of wildflowers.

Good grasses include side-oats grama (Bouteloua curtipendula), little bluestem (Schizachyrium scoparium), and prairie dropseed (Sporobolus heterolepis).

HOW TO NURTURE NATIVES

Prepare beds for native plants in spring, after hard frosts and before the heat of summer. Early fall is another golden time to plant native seedlings.

You can prepare native plant beds with the same measures used for any other crop. If you are planting native seedlings (not mature plants), sheet mulching techniques will help the soil to retain moisture and prevent weeds. Cover the planting area with a few layers of newspaper. Spread on this a layer of mulch—straw (not hay), composted shredded leaves, or 2 inches of shredded hardwood fines (aka shredded hardwood mulch).

Spacing the seedlings as needed, push aside the mulch and cut through the newspaper into the soil to plant. Pat the soil and paper around the seedling and return the mulch near to but not touching the stem (touching could cause crown rot).

Water the plants regularly until they become established, and then afterward only in extremely dry periods. Some plants will flower during the first year, but in the second year, your native plant bed will really start buzzing!

Kevin Allison is the urban soil health specialist for the Marion County, Indiana, Soil and Water Conservation District.

QUESTIONS?

For more information on local native plant recommendations, contact your county’s Soil and Water Conservation District, USDA-NRCS District Conservationist, or Cooperative Extension office. Great plant lists can be found here:

• marionswcd.org/native-plants/
• extension.entm.purdue.edu/publications/POL-6/POL-6.html
• Farming With Native Beneficial insects by Eric Lee-Mäder (Xerces Society, 2014)

Help your children explore the world around them, starting with the inside of a flower!

From the creator of the New York Times bestseller Women in Science

Buy now at PRH.COM
Wake up a boring wall with a cacophony of color, courtesy of wall-hugging pots and planters. Living walls are where space-strapped gardeners get growing; there may be limited ground to work with, but vertically, only the sky’s the limit!

Living walls have rocketed in popularity over recent years, in part as a consequence of generally smaller garden sizes but also as a reaction to our insatiable appetite for more growing opportunities. Choose from ready-to-plant solutions or make your own display by securing pots and tubs to walls and fences.

Sunny walls carry the advantage of absorbing heat during the day. This is then released at night to create a cozy microclimate ideal for gaining a head start for tender crops such as tomatoes and peppers. White walls reflect light back onto your plants, improving the quality of light for sun-craving crops.

Check that your wall or fence is strong enough for its living cloak. Plants and wet potting mix are a weighty combination! If you’re unsure, build your vertical garden from the ground up so that its weight rests predominantly on the ground rather than the wall.

Here are some ideas:

• **Bag it up**: Give tired sacks a new lease on life. Plant directly into them or just drop in plastic pots of produce.

• **Tin can alley**: Use old tin cans for herbs and trailing flowers such as nasturtium. Drill drainage holes in their bottoms.

• **Off the hook**: Hang sleek and stylish planters from S-shape hooks on trellis or horizontal battens.

(continued)
YOUR ESSENTIAL GUIDE TO SEEDS, PLANTS, AND BULBS
ORDER EARLY WHILE SUPPLIES LAST!

SOUTHERN EXPOSURE SEED EXCHANGE
Specializing in heirloom seeds
Our 700+ varieties offer remarkable flavor and superior disease and pest resistance.
Heirloom • Organic
Non-GMO
SOUTHERNEXPOSURE.COM • 540-894-9480

BOTANICAL INTERESTS
Heirloom • Organic
Non-GMO Project Verified
Inspiring and educating home gardeners for 25 years. 600+ varieties and eco-friendly gardening products. Look inside our seed packets for detailed growing information!
BOTANICALINTERESTS.COM • 877-821-4340

BRENT AND BECKY’S
Since 1900, Brent and Becky’s has been beautifying the country, one garden at a time!
Bulbs, perennials, annuals, and tropics!
Order online today!
BRENTANDBECKYSBULBS.COM • 877-661-2852

SOUTHERN EXPOSURE SEED EXCHANGE

BRECK’S
Direct to you from Holland, since 1818
Gardeners have trusted Breck’s for more than two centuries. We offer affordable, top-quality Dutch bulbs, perennials and more.
BRECKS.COM • 513-354-1511

GURNEY’S SEED & NURSERY CO.
Since 1866, customers have come to respect the products and the promise of service.
GURNEYS.COM • 513-354-1491

THE GROW BOX™
Farm-Fresh Vegetables Without the Farm™
The GrowBox™ automatically waters and adds the correct amount of fertilizer every day, keeps weeds out, and even shows you the best spacing for your plants. Stellar results are 100% guaranteed or your money back.
AGARDENPATCH.COM/FF • 800-519-1955

FREE GARDEN SEED CATALOGS AND PLANT CATALOGS
Check Almanac.com for a list of online catalogs from seed and plant mail-order companies.
ALMANAC.COM/CONTENT/GARDEN-SEED-CATALOGS-MAIL

JUNG SEED
Seeds • Plants
Bulbs • Non-GMO
Organic • Heirloom
From our garden to yours for 114 years
Take 15% Off With Code: ALMANAC21
JUNGSEED.COM • 800-247-5864

FOLLOW US:  •  •  •  •
• **Got a weak wall?** Grow climbing vegetables such as beans, which simply cover the wall rather than lean heavily on it.

• **Homespun hanging gardens:** Think outside the box and repurpose old items into handy hanging homes for your wall-dwelling plants.

**MAKE A LIVING WALL**

This quick-to-set-up project turns a standard trellis panel into a thing of immense beauty! Use any combination of containers, which can be reconfigured as often as the mood strikes you. Plant the containers with a combination of vegetables, herbs, and flowers suitable for the space available. We’re using salad leaves, radishes, kale, basil, and pea shoots, teamed with a splash of color from marigolds and dainty violas.

Raising pots off the ground makes them prone to drying out more quickly. Water regularly or consider setting up a simple drip-irrigation system.

**YOU WILL NEED . . .**

trellis panel
wood stain or paint (optional)
drill and masonry drill bit
wall anchors
L-shape screw-in hooks
10- to 12-inch pots
potting mix
selection of plants and seeds
strong jute twine or wire

1. Leave your trellis panel as it is or spruce it up with a coat of stain or paint suitable for outdoor use.
2. Drill holes in the wall with the masonry drill bit. Line them with wall anchors, then screw in L-shape hooks, ensuring that they’re level.
3. Fill the pots with potting mix, then sow or plant. Our selection includes herbs, flowers, salad leaves, and leafy greens—a feast for eyes and bellies!
4. Hang up the trellis panel. Now secure the pots to the trellis using the twine. Cut off any excess. Keep plants watered and harvest often.

**BEN’S TOP TIP**

Wrap the twine around both the pot and trellis at least twice to spread the strain and minimize the risk of the twine snapping.

**TIMING**

• Sow/plant outside from early spring to early summer.
• Harvest from late spring.
OFF THE WALL
If you don’t fancy setting up your own vertical planting system, take advantage of the many plug-and-play planters. These off-the-shelf vertical planting solutions include woolly planting pockets, rigid plastic panels that slot together, and columnar planters with a built-in watering system.

Most vertical planters include all of the fasteners and wall anchors needed for installation. Or opt for stackable planters that start at ground level and then build upward.

CASCADE YOUR STRAWBERRIES
Strawberry cascades have head-turning appeal, especially in flower or fruit. Terra-cotta pots look wonderful but owing to their porous properties will need watering more often than plastic pots.

This cascade (right) is made up of three pots. Position your cascade in the sun and water with a liquid fertilizer high in potassium throughout the growing season.

Buy strawberries as potted plants from spring onward or as bare-root runners to plant in early spring or autumn.

YOU WILL NEED . . .
3 terra-cotta pots: 6, 10, and 14 inches in diameter
potting mix
short bamboo cane
10 strawberry plants
liquid fertilizer

1. Fill the largest pot with potting mix, then push the bamboo cane down through the middle so that it stands perfectly straight.
2. Thread the medium pot onto the cane through its central drainage hole, then fill with potting mix. Repeat for the small pot.
3. Plant four or five strawberry plants into the large bottom pot. Tamp down and water well to settle.
4. Plant three or four strawberries into the middle pot, then two strawberries at the top, in the smallest pot. Water and feed with a liquid fertilizer.

BEN’S TOP TIP
Plant at the right depth: too shallow, and the exposed crown (leaves and stems of the plant) will be prone to drying out; too deep, and the crown could rot. All of the roots should be completely covered.

TIMING
• Plant outside from spring on.
• Harvest from summer to autumn.

—Benedict Vanheems

Benedict Vanheems is a passionate home gardener specializing in organically grown fruit, vegetables, and herbs. He is a garden writer at GrowVeg.com and the face of their gardening videos.
More variable seasons, more heavy rainfall, warmer winters, hotter summer nights, more dry periods, and longer drought are increasing the challenges of gardening everywhere. How has your garden changed, and how is it likely to change in the future? What can you do to help your garden to thrive no matter what the weather?

New kinds of gardening methods are making headlines as the solution to the challenges of gardening in a changing climate. **Regenerative gardening** focuses on practices like cover crops and reduced tillage that increase soil and plant storage of the carbon that is absorbed from the atmosphere through photosynthesis. These practices are well-known win-wins: They help to slow down climate change as well as grow healthy soils that buffer your garden from more variable temperatures and rainfall.

**Climate-friendly resilient gardening** promotes regenerative gardening procedures but also includes practices to avoid or reduce the release of carbon to the atmosphere and increase carbon stored in soils and plants. These are actions such as replacing chemical fertilizers with composts, synthetic pesticides with plant diversity, and garden...
BREATHE EASY.
LIVE FREE.

Take a deep breath. That’s the feeling of freedom you’ll get with Inogen One, the lightweight, portable oxygen concentrator you can wear. Compact and powerful, it can deliver hours of consistent oxygen flow on a long-lasting battery charge, whether you’re moving around the house or traveling to visit family.

So when it comes to oxygen therapy, forget the hassle of heavy, inconvenient oxygen tanks and enjoy your newfound freedom—thanks to Inogen One.

- No more bulky, heavy oxygen tanks, refills, or delivery disruption concerns.
- Hours of consistent oxygen flow on a long-lasting battery charge.
- Inogen One G4 is one of the smallest, lightest oxygen concentrators available, weighing as little as 2.8 lbs.
- Safe, ultra-quiet operation.
- Meets FAA requirements for travel.
- Ideal for stationary or mobile use.
- Clinically-validated for use 24/7.
- Intelligent Delivery Technology® ensures oxygen therapy is delivered efficiently and effectively in all modes of use.

Call now to speak with an Inogen Oxygen Specialist and request your FREE info guide.

1-888-712-0692
or visit us at www.GetInogen.com/discount

*30-Day risk free trial applicable for purchases only. Restocking fee may apply.
tools that run on fossil fuels with human- and solar-powered options.

Although both of these new gardening methods can help to put you on the path to a climate-resilient garden, they are not enough. You must do more than simply adopt some new gardening practices. You must change the way that you think about gardening.

Resilient gardening is about a lot more than simply bouncing back from the damage caused by a flood, a late-spring freeze, or a prolonged heat wave. Swift and low-cost recovery from damaging weather is important, but the resilient gardener cultivates nature’s ability to adapt to damaging weather-related events in ways that avoid or minimize damage so that there is never a need to bounce back! The resilient gardener also prepares for changes in weather patterns.

To begin cultivating your climate-resilient garden, follow these five steps. You’ll be glad you did!

1. Cultivate healthy soils. Healthy soils are the resilient gardener’s first line of defense against more variable weather. Healthy soils absorb more water during heavy rains, store more water for plants to use between rainfalls, and produce healthy plants that are more resistant to pests and disease, less sensitive to variations in temperature and rainfall, more productive, and more nutritious. Plus, healthy soils absorb and store more carbon from the atmosphere.

   These four keys to soil health will help you to cultivate healthy soils:
   • Minimize soil disturbance by using tillage only when needed and choosing tillage options that do not mix different soil layers.
   • Keep soil covered with growing plants for as much of the year as possible and/or compost or mulch to feed soil life and protect the soil surface from damage by heavy rain and extreme temperatures.
   • Cultivate plant diversity by growing a mix of plant types, such as warm- and cool-season annuals and perennials from different plant families that produce a mix of benefits, including food and beauty, nutrients for your crops, habitat for beneficial wildlife, and protection from pests, diseases, and damaging weather. Rotate these plants in and around your garden.
   • Encourage wildlife to live in and/or visit your garden. Welcome beneficial insects and birds and provide a healthy home for the diversity of microorganisms that create healthy soils. Enjoy the benefits of more traditional livestock, such as poultry and cattle, by using their manure in compost and/or, if possible, inviting them to graze cover crops and harvest weeds and insects.

2. Reduce energy use. The resilient gardener practices the four Rs—Rethink, Reduce, Reuse, Recycle.

   • Rethink. Explore climate-friendly alternatives to your current gardening habits and materials: Rethink your need for pesticides and manage pests and diseases through resistant crop varieties, crop rotation, natural repellents, physical protection such as floating row covers, and insectary plantings that attract beneficial insects. Instead of spreading nitrogen fertilizers, grow legumes. Replace peat moss with compost or coir, plastics with compostable materials, and municipal water with rainwater. Trade in power tools for low- or no-emission alternatives. Consider ways to use tools that run on fossil fuels with human- and solar-powered options.
   • Reduce energy use. The resilient gardener practices the four Rs—Rethink, Reduce, Reuse, Recycle.
   • Rethink. Explore climate-friendly alternatives to your current gardening habits and materials: Rethink your need for pesticides and manage pests and diseases through resistant crop varieties, crop rotation, natural repellents, physical protection such as floating row covers, and insectary plantings that attract beneficial insects. Instead of spreading nitrogen fertilizers, grow legumes. Replace peat moss with compost or coir, plastics with compostable materials, and municipal water with rainwater. Trade in power tools for low- or no-emission alternatives. Consider ways to use
human power: Park your rototiller and prepare your soil with a broadfork and hand rake instead. Use a scythe, a push lawn mower, landscape fabric, and even freezing temperatures to manage cover crops and crop residues.

- Reduce, Reuse, and Recycle materials that you need but can’t Rethink and check each year to see whether new alternatives are available.

3. Know your climate risk. Although climate change is global, your experience of climate change—aka your climate risk—depends on changes in regional climate, the position of your garden in the local landscape, and the sensitivity of your plants to more variable weather. The resilient gardener knows how regional climate has changed over the past century and how it is likely to change in the future; keeps careful records of local weather patterns; and uses this knowledge to design and manage for climate resilience. For example, if your garden is in an area that floods during heavy rains, select crops that are less sensitive to flooding, add drainage, or use landscape features to direct floodwaters away from your garden.

4. Protect, adapt, and prepare. The resilient gardener uses three strategies to reduce climate risk. One protects the garden with physical structures—for example, irrigation and drainage, garden fabrics, and built structures like a windbreak, cold frame, or greenhouse. A second strategy better adapts the garden to current climate risks through practices that increase biodiversity, such as improving soil health, replacing sensitive crop species and cultivars with new ones that are more robust, and using plants to provide structural protection. A third strategy prepares the garden for future climate risks through practices that anticipate changes in regional weather patterns by, for instance, selecting fruit tree cultivars adapted to warmer winters.

5. Share and learn. The resilient gardener knows that local gardeners need to work together to help their gardens to thrive now and well into the future. Experienced gardeners in your area are a valuable source of information. They can tell you about the weather risks that have been most difficult to deal with over the years, how these risks may have changed over time, and some time-tested local solutions that you can try. Share your knowledge and learn from others by joining a local garden club, take a climate course, or participate in a citizen science project.

-Laura Lengnick

Laura Lengnick is the founder and lead scientist at Cultivating Resilience, LLC, a private firm that works with organizations of all kinds to integrate resilience thinking into operations and strategic planning.

---

ADVERTISEMENT

SCiatica back pain?

Are radiating pains down the back of your leg, or pain in your lower back or buttoks making it uncomfortable to sit, walk or sleep? Many are suffering unnecessarily because they are not aware of this effective, topical treatment.

MagniLife® Leg & Back Pain Relief Cream combines seven active ingredients, such as Colocynthis to relieve burning pains and tingling sensations. Although this product is not intended to treat or cure sciatica, it can help with the painful symptoms. “I am no longer the ‘Screaming Lady’! My legs are not in pain. I would not know what to do without the Leg & Back Pain Relief Cream.” - Dolores, AZ.

MagniLife® Leg & Back Pain Relief Cream is sold at CVS, Walgreens and Rite Aid. Order risk free for $19.99 +$5.95 S&H for a 4 oz jar. Get a FREE jar when you order two for $39.98 +$5.95 S&H. Send payment to: MagniLife SC-GG1, PO Box 6789, McKinney, TX 75071 or call 1-800-837-0305. Satisfaction guaranteed. Order at www.LegBackCream.com

Leg cramps at night?

If you experience painful muscle cramps in your legs, back, feet, or hips, you should know relief is available. Over 100 million people suffer from aggravating muscle cramps, which may interfere with sleep, because they are not aware of this proven treatment.

MagniLife® Muscle Cramp Pain Reliever contains eight active ingredients, such as Magnesia Phosphorica to help prevent and relieve cramps and radiating pains that are worse at night. “Your product has severely helped me and I thank you so very much.” - Marie L., MT.

MagniLife® Muscle Cramp Pain Reliever is sold at Rite Aid, CVS and Amazon. Order risk free for $19.99 +$5.95 S&H for 125 tablets per bottle. Get a FREE bottle when you order two for $39.98 +$5.95 S&H. Send payment to: MagniLife L-GG1, PO Box 6789, McKinney, TX 75071, or call 1-800-837-0305. Satisfaction guaranteed. Order at www.LegCrampsRelief.com

Arthritis Pain?

Are muscle and joint pains in your back, neck, shoulders or knees keeping you from enjoying daily activities? You should be aware of this new topical pain reliever that targets the source of the pain — inflammation, instead of masking it with artificial cooling or warming.

MagniLife® Arnica Pain Relief Gel with emu oil and eucalyptus relieves pain due to sore muscles, joint discomfort, strains and arthritis with no lasting smell. “This has been a great product for me. It temporarily relieves my back pain. I use it every night. I love that it rubs in well and doesn’t leave a residue. I highly recommend it.” – Markell.

MagniLife® Arnica Pain Relief Gel is sold at Walgreens, Rite Aid and Amazon. Order now for $19.99 +$5.95 S&H for a 4 oz jar. Get a FREE jar when you order two for $39.98 +$5.95 S&H. Send payment to: MagniLife GC-GG1, PO Box 6789, McKinney, TX 75071 or call 1-800-837-0305. Money back guarantee. Order now at www.ArnicaPainGel.com
Coloring your textiles and yarns with homegrown plant dyes is a fun and ecological step in creating beautiful, one-of-a-kind projects. Creating a dye garden offers a source of desirable colors ready for the picking. Plant one now to use for dyeing this year or next—or just to enjoy, knowing that your garden is home to a rainbow of possibilities.

**INDIGO**

*Indigofera suffruticosa*

Indigo, made from several plant species, is considered the royalty of all plant dyes: Its leaves were used to produce vibrant blue-tone garments for royalty and the wealthy as far back as 1600 B.C. During the Industrial Revolution, Levi Strauss popularized the color in denim jeans.

The tender shrub *I. suffruticosa* is a perennial in its native Mexico and the Caribbean and an annual elsewhere. It performs best and produces optimum dye color if provided well-drained soil amended with compost and regular watering in areas with long, hot summers. Soak indigo seeds in water overnight before sowing directly into the garden once the soil is warm and there is no risk of frost.

Indigo bears small, tan flowers in midsummer, which are followed by pea-like seedpods. For brilliant color, put only the freshly picked (not dried) dark green leaves into the dye pot. Harvest leaves during summer or early autumn. Indigo produces a large range of blue and black shades.

**ONION**

*Allium cepa*

Onions have been cultivated around the world for over 5,000 years. Ancient Egyptians buried onions with their pharaohs; to the Egyptians, the layers of peel and rings of a sliced onion symbolized eternity.

They are easy to grow in a sunny location in well-draining, sand-amended soil. Add a handful of well-rotted manure or compost before planting. Thin onions for bigger bulbs and reduced infestations of onion flies and maggots.

Yellow or red onions consistently produce good yellow, orange, and brown colors. (Red onions do not produce a noticeably darker color than yellow onions.) Harvest when the tops yellow and droop. Store onions in a dry place with plenty of air circulation. Dyers treasure the vellum skins, or “paper”; when slicing onions, save these for use as dye.

**PURPLE BASIL**

*Ocimum basilicum* var. *purpurascens*

Named after the Greek word *basileus*, meaning “king,” this herb is valued for its culinary and medicinal properties. Over 150 species of basil exist, the best known of which is sweet basil. Purple basil and its many cultivars are...
Let us be your quality seed provider.

Our vegetable, flower, and herb seed varieties are available in bulk and packets.

We offer conventional, certified organic, heirloom, and premium hybrid seeds for professional and garden growers of any size. We have signed the Safe Seed Pledge and most of our varieties are available as untreated seed. We also carry wildflower seed mixes (pure seed, no fillers), cover crops, grass seed, wildlife food plot mixes and growing supplies.

Free USA ground seed shipping over $139.99
10% discount on seed orders over $999.99
Flat-rate USA ground seed shipping

neseed.com
hybrid forms of sweet basil, identifiable by their dark purple leaves and stems.

Annual purple basil can not tolerate cold weather. Sow seeds in full sun, in well-drained, compost-amended soil, when all danger of frost has passed. Or, start it indoors; basil transplants well. Once plants are established, apply nitrogen sparingly. Plant stems will weaken if given too much.

Collect purple basil leaves in midsummer, before the plants flower, and use fresh for a dye. Leaves will yield dye colors in brown to light purple shades.

RED CABBAGE
(\textit{Brassica oleracea} var. \textit{capitata} \textit{f. rubra})

Early Egyptians ate cabbage to cure a hangover, and ancient Chinese recommended it as an agent against baldness.

Cabbage is a heavy feeder and requires regular applications of compost. It is not drought tolerant; to conserve moisture, use mulch around the plants. Practice annual crop rotation, as planting cabbage in the same location every year will invite unwanted pests and diseases.

Red cabbage produces colors ranging from lilac to bright blue, depending on the pH of the soil. Acidic soils will deepen the red leaf color. (Cabbage’s edibility is not affected by pH.) Harvest red cabbage when the heads are fully formed and feel heavy and solid. Use only fresh leaves to make dye. Cutting the heads into 1- to 2-inch chunks will help to extract the color.

ROSEMARY
(\textit{Rosmarinus officinalis})

Native to Mediterranean shores, rosemary was used to treat jaundice and to improve memory. Its aromatic, needlelike leaves were often burned as incense. In 14th-century Europe, rosemary branches were placed in homes in an attempt to ward off the Black Plague.

Rosemary is a perennial in warm regions; it may be best suited to overwintering in containers indoors in cold zones. It is a sun-lover and can not tolerate boggy soils.

SUNFLOWER
(\textit{Helianthus annuus})

Sunflowers, which are native to North America, have been cultivated by indigenous peoples since 3000 B.C. They were introduced to Europe by Spanish explorers in the 16th century, and domestication of sunflowers began in the 1830s.

Plant sunflowers in full sun, in well-drained, compost-amended soil, and provide even, consistent moisture. To encourage more flowers and a bushier growth habit, pinch back the stems when the plants are young.

Select sunflower heads for dyeing when they are in full bloom and do not allow them to dry. Sunflower blooms produce color in a yellow to green range. The seeds of the rare heirloom sunflower ‘Hopi Black Dye’ will yield vibrant purple and black shades in the dye pot; however, these plants are difficult to obtain.

SWEET FENNEL
(\textit{Foeniculum vulgare})

Fennel, with its strong anise flavor, has been prized in cooking and medicine since the time of the ancient Romans. They used it to treat bronchial ailments and colic in infants. Sack, a liquor made with honey and fennel, was popular in Elizabethan England and is still bottled today by meaderies.

Sweet fennel is easy to grow in full sun and well-drained soil. (It adapts and spreads so freely by seed that it has naturalized in certain states and, as a result, been declared invasive.) Florence fennel (\textit{F. vulgare} var. \textit{azoricum}, aka \textit{finocchio}) is less aggressive. It produces a large, bulbous leaf base that you can eat.

Sweet fennel flowers, leaves, and stems are used for dyeing. Pick in the spring or early summer when leaves are tender and feathery, before the plants form seeds. Fresh fennel produces beautiful, soft gray-green to medium green to yellow-brown shades.

Dyeing Details

There are many recipes for dyeing with plants, but most follow a similar process:

Place the harvested plant matter in a vat (dye pot), cover it with water, and boil until you achieve your desired color. You may add lemon juice or salt to enhance the color. Strain the plant matter from the dye.

When using natural dyes, you need a color fixative (mordant) to set the color. Mordants include alum (found in grocery stores), rhubarb, sumac leaves, and oak tree galls. Presoak the fibers in a mixture of water and a mordant before adding to the colored water (dye).

Submerge the presoaked fibers in the dye and simmer until they reach your desired color. Remove the fibers from the pot, rinse, and hang to dry before using.

Sheryl Normandeau is an avid gardener, writer, and blogger from Calgary, Alberta. She grows a wide assortment of vegetables and herbs on her balcony and in several community garden plots.
Millie’s PIEROGI are HANDMADE using the finest quality ingredients, and are fully cooked before packaging. One dozen delicious pierogi are nestled in a tray, making a one pound package of pure enjoyment!

CABBAGE - Cabbage and sauerkraut for extra flavor; blended with onions, margarine and spices.
POTATO & CHEESE - Mashed potatoes mixed with farmer’s cheese, with just a dash of seasoning.
CHEESE - Mild farmer’s cheese with just the right touch of seasoning.
PRUNE - We use whole prunes, not purée. Elegant as a dessert or appetizer, or just a snack!
POTATO & CHEESE with KIELBASA - Our regular Potato & Cheese filling with just enough kielbasa ground in to give it a kick!
BLUEBERRY - Wild Maine blueberries with just a touch of cinnamon and sugar; shipped frozen.
POTATO & ONION - Sauteed onions mixed into mashed potatoes.

Millie’s Pierogi turn any day into an occasion... place your order today!

Order yours today! Millie’s Pierogi are Harvested Daily From Our Farms And Shipped To You Direct!

www.milliespierogi.com

Call toll free or visit our web site:

1-800-743-7641
milliespierogi.com

Order your way today!
www.ZoysiaFarms.com/mag

1-800-786-2311

Promo Code 5626

Orders shipped within 48 hours.

Now 3 ways to start your Amazoy Zoysia lawn:

1) New Super Plugs come in handy trays, pre-cut as individual 3”x3” plugs ready to plant. Enough for 60 sq. ft. from $24.95 + shipping.
2) Freestyle Plugs come in uncut sheets with up to 150 - 1” plugs. Or for less cutting and planting, make each plug bigger and plant them farther apart – your choice. Enough for 300 sq. ft. from $29.95 + shipping.
3) Amazoy-Approved Seed – As the Zoysia Experts for 60+ years, we exceed expectations. Available in 2-lb. bags, enough to cover over 1,000 sq. ft.

Now 3 ways to start your Amazoy Zoysia lawn!

1) New Super Plugs come in handy trays, pre-cut as individual 3”x3” plugs ready to plant. Enough for 60 sq. ft. from $24.95 + shipping.
2) Freestyle Plugs come in uncut sheets with up to 150 - 1” plugs. Or for less cutting and planting, make each plug bigger and plant them farther apart – your choice. Enough for 300 sq. ft. from $29.95 + shipping.
3) Amazoy-Approved Seed – As the Zoysia Experts for 60+ years, we finally have a Zoysia seed that meets our standards and homeowners’ expectations. Available in 2-lb. bags, enough to cover over 1,000 sq. ft.

Order your way today!

www.ZoysiaFarms.com/mag

410-756-2311

Promo Code 5626

Orders shipped within 48 hours.

The Old Farmer’s Almanac Garden Guide 35
MANY GARDENERS LONG FOR A GREENHOUSE, BUT GREENHOUSE GROWING BRINGS CHALLENGES, WHAT WITH REGULATING THE VENTILATION, WATERING, POLLINATION PROBLEMS, THE RISK OF Fungal DISEASES AND PESTS (APHIDS AND WHITEFLIES, TO NAME A FEW). NOT TO MENTION THE EXPENSE AND THE SPACE REQUIREMENTS.

THERE IS A LOW-COST ALTERNATIVE THAT AVOIDS THE PITFALLS WHILE PROVIDING MANY OF THE BENEFITS OF A GREENHOUSE: A PASSIVE-SOLAR HEAT SINK, MADE BY ADDING MULTIWALL POLYCARBONATE (PC) PANELS TO A RAISED BED.

THE RAISED BED HEAT SINK
A PASSIVE-SOLAR SOLUTION TO EXTENDING THE SEASON

Many gardeners long for a greenhouse, but greenhouse growing brings challenges, what with regulating the ventilation, watering, pollination problems, the risk of fungal diseases and pests (aphids and whiteflies, to name a few). Not to mention the expense and the space requirements.

There is a low-cost alternative that avoids the pitfalls while providing many of the benefits of a greenhouse: a passive-solar heat sink, made by adding multiwall polycarbonate (PC) panels to a raised bed. It is open to sunshine, rain, pollinating breezes, and beneficial insects and allows the soil to trap and hold more of the Sun’s heat. The polycarbonate panels are fitted as closely as possible to the top boards of the raised bed. The hinged panels are flush-mounted on support posts so that when they are closed, the sides of the bed make continuous walls. This helps to trap heat.

The design proposed here helps in just about any environment. In cooler climates (or growing seasons), the heat sink enables tender melons, winter squashes, cucumbers, peppers, and eggplants to produce more, faster, and with less stress. In generally frost-free zones, the heat sink could be used all winter to shelter frost-hardy crops like cabbage, kale, arugula, brussels sprouts, and carrots. Plus, anywhere (or -time) wind blows to excess, the heat sink’s barrier configuration serves as an effective windbreak.

All this, and access to your plants is as easy as ever: The panels are hinged to let you weed, water, and harvest. The entire lightweight and almost indestructible, visible to birds, and trap more heat than glass. Vendors might cut them to size for you; to do it yourself, use a fine-toothed circular saw, a Dremel tool, or a straightedge and strong box cutter. Use eye protection.

The directions here are for a 4x8-foot raised bed (any depth). Adjust accordingly for larger or smaller beds.

YOU WILL NEED:
- Duct or greenhouse tape
- 3 sheets of 4x8-foot multiwall polycarbonate, cut to make 6 4x4-foot pieces
- 6 5-foot lengths of 1x3-inch wood strapping (aka furring strip board), for support posts
- 18 1½-inch deck screws
- 16 pan-head wood screws (length depends on thickness of panels)
- 8 flush-mount cabinet hinges with screws
- 4 4-foot lengths of wood trim (narrow but thick enough to hold the hinge screws)
- 4 bungee cords, each about 3 feet long
- 12 brass cup hooks
- Cordless drill with screwdriver bits to match screws, plus a bit to predrill
- 5-foot wood strapping

TO MAKE THE HEAT SINK:
1. Cover the sharp edges of the polycarbonate with duct or greenhouse tape, pressing the tape evenly over the edges.
2. Secure the 5-foot-long support posts to the inside of the raised bed with three deck screws in each. Screws go through the wider, 3-inch side of the post. Leave a 4-foot-long portion of each post above the bed frame. (Predrill the screw holes to prevent splitting.) Secure four 5-foot-long posts at the corners, inside the 4-foot ends of the raised bed.

Attach the remaining two posts at the middle of the 8-foot sides of the raised bed, one on each side.
3. At a 4-foot side of the raised bed, rest a PC panel upright against two posts, with the bottom resting on the top board of the raised bed beneath. Attach the panel to the outside of each post with pan-head screws at 16-inch intervals, using a light hand on the drill.

4. Repeat on the other 4-foot end of the bed.
5. Attach the hinges to the remaining four panels: Place a panel on a flat surface. Lay a 4-foot length of wood trim under it, along one edge; match the edge of the panel with the edge of the wood trim. The hinges have a flat door-leaf side and a cylindrical pin.
Cover the sharp edges of the polycarbonate with duct or greenhouse tape, pressing the tape evenly over the edges. Secure the 5-foot-long support posts to the inside of the raised bed with three deck screws in each. Leave slightly more than 4 feet of each post above the bed frame.

Attach a panel to the 4-foot end of the bed, using screws at 16-inch intervals. Repeat on the other 4-foot end of the bed. Attach the hinges to the remaining four panels. The remaining panels go on either side of both center support posts.

Screw 3 cup hooks into each of the raised bed’s 8-foot sides, at both ends and the middle. Put a cup hook near the top of each post, inside, where the wood is not covered by the panels. To keep the panels closed, fasten a bungee cord to the end hooks, top and bottom. To access your plants, fold a panel flat against the side of the bed and move the bungee cord to the middle hooks.
Get this with your money at a typical auto parts store. Or ALL this at www.RockAuto.com!

STEEL FARM BUILDINGS

LIBERATOR ROCKET HEATERS

Reduce your heating bill with a hyper efficient rocket heater!

Burns both fuel pellets and wood.
Gravity fed, non-electric, & no moving parts.

Call us at: (573) 468-4043
Visit our website at: rocketheater.com

Janet McNaughton, of St. John’s, Newfoundland, is an award-winning author of children’s books. She has a raised bed heat sink in the garden at her cottage in New Chelsea.
KEEP ON BEING YOU

Keep on enjoying the outdoors. A Stannah stairlift is a practical and affordable solution for the stairs. We make going up and down the stairs easy so you can keep on doing the things you love, indoors and outdoors. Short-term rentals are available. We offer contact-free appointments & installation!

Visit www.Stannah-Stairlifts.com to learn more about indoor and outdoor stairlifts.

Visit One of Our Local Showrooms.

We have showrooms in MA, CT, NY, NJ and PA! Contact-free demonstrations available. Call for more info.

Mention The Old Farmer’s Almanac & SAVE $200*

*Only one discount per person. Can only be applied to a new stairlift purchased directly from Stannah Stairlifts.
My garden, the small-scale urban Heritage Cottage Urban Nano Farm (UNF) in Ocean Springs, Mississippi, encompasses my yard and landscape. The UNF’s name comes from the street that my wife and I live on.

All of the gardening that I do at home—all of it—is in a variety of containers, and I’m committed to this method.

Why containers? The soil in my neighborhood in south Mississippi is not the best (to say the least). Don’t hate me because I don’t want to put in the work to build a better soil; growing in containers is much easier for me. Containers allow me to grow in higher plant densities and with fewer weeds.

In the containers, I use a commercial peat-based professional container mix, the kind that’s widely available at garden centers. These products are engineered to provide the optimum physical characteristics (water holding, air porosity, etc.) without the need for amendment with other materials such as peat, soil, or compost; amending alters the desired physical characteristics. Plus, because the peat container mix is inhospitable to common soilborne diseases, I found that crop rotation is not as critical as it is in an in-ground garden. In fact, the potting mix does not have to be replaced between seasons or even years. I only have to amend it with some fresh potting mix and fertilizer, and I’m ready for the next crop.

Our plot is proof that you can grow just about anything in a container. We have ‘Gertrude Jekyll’ and ‘Pink Enchantment’ roses, along with my favorite, limited-edition ‘Four Roses Anniversary Rose’, in 15-gallon containers, as well as citrus (satsuma oranges, Meyer lemons, and kumquats) and avocados in 25-gallon tubs. (I’m so excited about being able to make my first homegrown guacamole!) My primary holders are 136 sub-irrigated containers, each with a 2-gallon reservoir that maintains a consistent root zone moisture. I use automated drip irrigation because there isn’t time in the day to water everything and I want to conserve precious water. This strategy has allowed me to grow a wide variety of vegetables and the companions that attract pollinators and beneficial insects.

Growing in containers is a great solution for any novice gardener intimidated by starting their first garden. Simply choose a container; make a few holes in the bottom; add bagged container mix, a couple of transplants, and water—and you’re gardening.

This being said, I don’t advocate that every gardener should build their garden as I have mine. But I love to see novice gardeners be successful. In my role as host of “Southern Gardening,” Mississippi State University Extension’s branded media, I want to share ideas that will make gardening easier and thus more enjoyable. This means trying different gardening methods, crops, and the like.

For example, I look for new vegetables that I just have to grow, and because popular new varieties can quickly sell out, I’ll purchase the seeds I want for the entire year. My sources of inspiration include seed catalogs and TV cooking shows.
We Build Today’s Best Barns
Our reputation demands it.

Three generations of unmatched excellence.

Country Carpenters
POST & BEAM BUILDING
NEW ENGLAND STYLE
since 1974

Models on Display!
Shipped Nationwide!

Country Barns • Carriage Houses • Garages • Pool/Garden Sheds • Cabins • Hobby Barns
860.228.2276  countrycarpenters.com
326 Gilead St, Hebron, CT
The Passionate Gardener

The Old Farmer's Almanac Garden Guide

The Passionate Gardener shows that use interesting vegetables.

My goal is to grow high-end, unusual varieties. Why grow plain old green beans when you can grow haricot verts (French green beans). Or ordinary hybrid tomatoes when you can grow heirloom tomatoes that have a story to tell, like ‘Cherokee Purple’, originally grown by the Native American Cherokee.

Over the past 10 years, I’ve trialed over 70 heirloom tomato varieties in search of those that thrive in our hot and humid environment. As a result, I grow primarily determinate tomatoes in spring and fall. Favorites include determinate ‘Siberian’, ‘Glacier’, ‘BHN 968’, and ‘Black Sea Man’. In summer, I grow indeterminate ‘Black Ethiopian’, ‘Angora Super Sweet’, and ‘Cherokee Purple’.

Another summer crop that I love to grow and eat, either fresh or cooked, is peppers in all the colors of the rainbow. From sweet bells to midrange hot peppers, I can’t grow enough! (I used to grow and eat the superhot varieties like the ghost pepper, but I just can’t handle that much heat anymore.)

A favorite treat is jalapeño poppers. For these, we grow a mild-tasting, extra-large selection called ‘Jalamundo’. Possibly even better than this is the ‘Shishito’ pepper, a thin-skinned fruit. (Blister them on the grill and serve with a peanut dipping sauce!)

Moving up the Scoville scale, I grow ‘Fresno’, ‘Big Jim’, and other medium-hot peppers to pickle.

We also grow cucumbers—‘Pickler’, ‘Garden Bush Pickle Hybrid’, and ‘Picklebush’—to make dill pickles. The vines grow vertically on trellises, sometimes with assistance of greenhouse tomato clips. Last year, I planted 36 pickling cucumber plants (I may have overdone it!).

When winter comes, we start all over again with the cool-season vegetables. We enjoy a good mix of leafy greens. Kale is an easy-grow, must-have crop—there’s such a variety, from ‘Toscano’ to the curly leaf ‘Winterbor’. Swiss chard is another ornamental and culinary choice. The brilliant-color stalks (orange, red, pink, golden yellow, and pastel) and head knowing that it’s a perfect single-serving size.

You need to have radishes for salad, so these are must-haves in winter—especially an heirloom called ‘Cincinnati Market’. This variety was bred by Glass Gardeners near Cincinnati in the mid-1800s. In the early 1900s, the seed of this radish was sent to south Mississippi, where it was known as the ‘Long Beach Red Radish’, to be grown as a winter crop. The harvested radishes—enough to fill 300 railroad boxcars a year—were shipped to northern states for bar snacks.

Just as much as I love growing vegetables, my wife and I are committed to sharing and preserving our harvest. We routinely give transplants and freshly harvested vegetables to friends and neighbors, and we have a small planting bed near the sidewalk where we grow herbs and vegetables for neighbors to pick as they need or desire.

The point that I emphasize with all of this is that the garden doesn’t have to be a lot of hard work. Sure, it’s some work—but you do get some delicious vegetables!

Gary Bachman, Ph.D., CPH, is a production nursery/greenhouse-trained ornamental horticulturist with more than 30 years’ experience and the host of “Southern Gardening,” Mississippi State University Extension’s branded media concentrating on ornamental plant promotion.
Handmade in Vermont, our pure wool dust mop lasts twice as long as cotton and blends. Not only is the natural fiber inherently durable, the swivel head provides maneuverability for easy cleaning. The natural lanolin in the wool draws dust like a magnet... and holds tight ‘til you give the mop a good shake. The new Velcro backing allows for quick & easy removal of the dust head from its 12” frame for laundering. Telescoping handle included. Dusting area measures 11” x 18”. $42.95 - Free Shipping.

Received my mop and have used it every day. I just love it. I didn’t think you could improve on my old one (25 years) but you did. I particularly like the swivel and the light colors. Please send another to my daughter; ‘the other three will come later.’

Thank you
Doris Conlon
Worcester, MA

Handmade in Vermont, our pure wool dust mop lasts twice as long as cotton and blends. Not only is the natural fiber inherently durable, the swivel head provides maneuverability for easy cleaning. The natural lanolin in the wool draws dust like a magnet... and holds tight ‘til you give the mop a good shake. The new Velcro backing allows for quick & easy removal of the dust head from its 12” frame for laundering. Telescoping handle included. Dusting area measures 11” x 18”. $42.95 - Free Shipping.

Received my mop and have used it every day. I just love it. I didn’t think you could improve on my old one (25 years) but you did. I particularly like the swivel and the light colors. Please send another to my daughter; ‘the other three will come later.’

Thank you
Doris Conlon
Worcester, MA
When I answer my office phone as an Extension vegetable specialist, from time to time it’s someone asking how they can get recognition for growing a huge tomato, possibly the biggest one ever. When I ask how big a tomato we’re talking about, and the caller says 2 or 2.5 pounds, I have to hold back my laughter and gently explain that this is nowhere even close to a record.

So, just how big is “big”? Growers in various states have set various records: New Jersey was home to a 6-pound 2.5-ounce tomato, Oklahoma has boasted a 7-pound 12-ounce one, and Washington has topped that with an 8-pound 9-ounce specimen. According to the Guinness Book of World Records, Steve and Jeanne Marley of Clinton, New York, are the current record holders, having produced a tomato tipping the scale at 9 pounds 10.4 ounces in 2019.

If you take this as a challenge to your own tomato-growing prowess, read on for tips on how to nurture a massive tomato. The secrets are really nothing too obscure. What’s important is checking off as many boxes as possible to optimize the fruit size. Each step is attainable for the home gardener, but missing out on certain ones will limit your results.

1. PICK A PROVEN PEDIGREE
Are some varieties better for fruit size? Absolutely. The best way to determine which ones to use is to look at previous winners. Genes are important.

A cherry, grape, or plum tomato plant isn’t going to yield a winner. Some varieties have a genetic potential to produce larger fruit than others, including ‘Beefsteak’, ‘Delicious’, ‘Big Beef’, ‘Big Rainbow’, ‘Dinner Plate’, ‘Giant Belgium’, ‘Big Pink’, ‘German Johnson’, ‘T & T Monster’, ‘Bragger’ (aka ‘Braggar’), and ‘Brandywine’, among others. All of these big boys are in the category of beefsteak tomato: They have smaller seed cavities than other varieties and so proportionally more flesh than juice and seeds.

Since it would be hard to
DR® Chipper Shredders

Make Yard Cleanup EASY!

- CHIP big branches up to 5" thick
- SHRED lighter yard & garden waste
- REDUCE it all to a fraction of its original volume

USA
ENGINEERED AND BUILT
Assembled in the USA using domestic and foreign parts.

DR® Chipper Shredders

PREMIER 300
PRO 400
PRO XL501
PRO XL575

DRchipper.com
Request your FREE Product Catalog!
Toll Free: 877-202-1315

SALE
Including
FREE SHIPPING
EASY FINANCING
Some limitations apply. Go online or call for details.

Follow Us:

The Old Farmer’s Almanac Garden Guide 45
find plants of most of these at your local garden center, you will likely have to order seeds from seed catalogs and start your own plants. There’s no guarantee that a plant of one of these varieties will be a winner. Although the potential for large size is in the genes, it will not be achieved unless the environmental conditions are optimized. And by that, I mean perfect.

2. SUPER SOIL
One of the most important tips is to start with great soil. All plants, not just tomatoes, will do much better if planted in properly prepared soil. The soil should be well drained, high in organic matter, and fertile.

Tomatoes thrive on animal manures. So if you have access to some composted (not fresh) manure, you might place some in the bottom of the hole and then cover it up before transplanting your seedling. This is a tried-and-true method for lots of old-time tomato growers.

3. A PLACE IN THE SUN
Like most vegetables, tomatoes need full sun. Anything less will decrease maximum photosynthesis, thereby limiting the growth of foliage and fruit. A tomato plant needs lots of leaves to catch as much sun as possible, manufacture sugars, and send those sugars to the developing fruit. They also don’t mind the heat (up to a point), as long as there is plenty of water in the root zone to keep them from drying out.

When the temperature gets into the mid-90’s F or above, that’s when trouble can occur. Tomato pollen is sterilized at 94°F, so even if pollination occurs and pollen makes it from the male to the female parts of the flower, there won’t be much fertilization since pollen has been killed. So higher temperatures limit fruit set, the transformation of flower into fruit. Fruit quality and size will also suffer at very high temperatures.

4. SPACE TO SPREAD OUT
Tomatoes need plenty of room to grow. Commercially, most growers use a 2-foot spacing within rows. If you want really large fruit, give them even more room. One of the most common errors by novice gardeners is planting tomato plants too close together. If you are just going for size, you need only a few good, healthy plants, with plenty of space around them.

Training plants to grow off the ground is a good idea to protect the quality of the fruit. Caging and staking are both fine. Just be sure to tie them frequently enough to support the plants. If you choose cages, you will need a mesh that is big enough to get your hand in and get that enormous tomato back out.

5. HYDRATED AND WELL-FED
Tomato plants need plenty of water, especially in hot weather, but will suffer if the ground stays saturated. As a rule of thumb, an inch and a half of water per week, from a hose or from rain, is about right. The soil must be able to drain this water within a reasonably short time.

Be sure to water the plants thoroughly right after transplanting. After plants are established, always water deeply, once or twice per week, rather than giving them a light sprinkle every day; shallow watering leads to shallow roots. A good, thick mulch will help to hold moisture in the soil around plants and also keeps the weeds down.

As for fertilizer, tomatoes need regular doses. Small, weekly amounts are better than large pre-plant amounts and one or two side-dressings. Liquid fertilizer is more quickly available to plants than granular forms. Some people like to use fish emulsion or “manure tea,” but any complete garden fertilizer will work.

6. FOCUS ON ONE FLOWER
One other tip, and this is important: Remove the first flower cluster or two so that the plant will produce more leaves before you allow it to set tomatoes.

Then, when the plant is big enough to set fruit, don’t let all of the fruit mature. Remove all but one fruit per cluster. Usually, the first fruit to set on a cluster will be the largest, so snip off all of the other flowers or small fruit on that cluster. And don’t let too many clusters stay on the plant either.

PREPARE FOR PRIZEWINNING
Once you’ve got your jumbo beauty, what about that big money? Start by looking for local, county, or state contests. Ask your State Department of Agriculture or County Extension agent.

Good luck, and remember to think big. The record continues to be broken every so often, which tells you that the upper limit has still not been found.

And if you just don’t have much luck in growing gargantuan tomatoes, console yourself with the knowledge that while these techniques maximize for size, they do not maximize flavor. When plants get too much water, for example, the fruit can be bland. Your more average-size tomatoes may be more delicious at the table.

Richard G. Snyder

Richard G. Snyder is a professor of horticulture and an Extension Vegetable Specialist at Mississippi State University.
INCINOLET®
SIMPLY THE BEST

PROBLEM SOLVED!
Need a toilet conveniently located in your home, cabin, barn, boat, or dock?
**INCINOLET is your best solution!**

**SIMPLE** to install & maintain.
**ULTRA CLEAN** Waste reduced to ash.
**TOP QUALITY** stainless steel, quality controls.

Visit our website: [www.incinolet.com](http://www.incinolet.com)
Call 1-800-527-5551 for information, prices, and personal attention.

**NEPTUNE’S HARVEST ORGANIC FERTILIZERS**
“YOUR STUFF WORKS!”

**LARGEST PUMPKIN IN NORTH AMERICA**
2,350 POUNDS!

1-800-259-4769
neptunesharvest.com

**CANDY HOUSE**
Your house for all occasions

Candies! For over 50 years we have used only the finest ingredients in our candies—cream, butter, honey, and special blends of chocolates. Call for a FREE brochure.

Long famous for quality candies mailed all over the world.
Treat yourself or someone special today.

292 Chelmsford Street • Chelmsford, MA 01824
For Free Brochure Call:
978-256-4061

**INCINOLET**
electric incinerating toilets

RESEARCH PRODUCTS/Blankenship
2639 Andjon • Dallas, Texas 75220

**Mrs. Nelson’s CANDY HOUSE**
“Your house for all occasions”

Come visit us today!
TAKE THE
INSTAGRAM
CHALLENGE!

ARE YOU READY?
YOUR BEANS CAN BE INTERNET IDOLS WHILE YOUR TOMATOES ARE WORSHIPED WORLDWIDE.

BY KAREN BERTelsen

SWIPE UP FOR MORE INFO

The Old Farmer's Almanac Garden Guide 49
Millions of people share photos of their food every day on Instagram. Showing off pictures of our breakfast, lunch, and dinner has become an obsession. Exactly how popular are food photos on Instagram? The hashtag #foodphotography has been used over 57 million times. For the same period, #petphotography has been used about 2.7 million times. Yes, if given the choice, we’d rather look at noodles than poodles.

While cooked food has been getting all of the glory lately, some key ingredients have become objets d’art a little deeper in the hashtag domain. The carefully styled lump of mashed potatoes on the artisan-made dinner plate is pushed aside to make room for . . . the potato. Just the potato. Naked, in its natural state. This is the underground world of Instagram-worthy vegetables, a place where rare, exotic, beautiful, and simply weird vegetables are showcased with reverence. Sometimes they’re pulled fresh from the soil, and sometimes they’re posed, styled, and lit like celebrities. Think county fair with better art direction.

My introduction to this world of heirloom and rare vegetables came 11 years ago at Wellandport, Ontario’s Tree & Twig farm, courtesy of Linda Crago, a CSA (community-supported agriculture) grower with a deep-seated (or, in this case, “seeded”) interest in rare and hard-to-find vegetables. Her main interest lies in tomatoes and the thousands of varieties to be found in this niche, but she has also been known to fly across the globe to buy one or two seeds from an exceptionally rare bean or pepper.

This is the level of enthusiasm (or lunacy) that we’re talking about here. I count myself to be a proud vegetable lunatic, by the way. Why? Why such dedication to a dried bean or a pumpkin covered in warts?

Rare heirloom vegetables are to gardeners what haute couture is to fashion.
lovers: part status symbol, part beauty, part high quality. Plus, like a hand-beaded Valentino pantsuit, they look great on Instagram. Plus, you don’t have to be a professional photographer or grow extremely rare varieties to get in on the fun.

Think that your homegrown produce isn’t “special” enough? Trust me, it is. Instagram-worthy vegetables can be anything from those haute couture heirlooms to this carrot that you grew that looks like it has legs. If this carrot is also a Tibetan heirloom variety whose seed you retrieved from the poop of a mountain goat after climbing up a rock ledge, well, that may get you bonus “likes” from your friends and followers. It will also get you people asking if you’d be willing to share some seeds.

If you’re looking to grow and share your own Instagram-worthy vegetables, you’ll find that they typically fall into one of three categories: rare heirlooms, new discoveries, or things gone weird.

RARE HEIRLOOMS

Heirlooms are vegetables that come from seed that was passed down from generation to generation. When these seeds are planted, they produce an exact replica of the vegetable. Most important, heirlooms have unparalleled flavor.

The two easiest and most satisfying heirlooms to grow in your garden are dried beans and tomatoes because they’re really easy to grow and are stunningly photogenic. Many are covered in serendipitous stripes and dots, stunningly multicolor, and/or oddly shaped. Just 11 years ago, tomatoes like green-flesh ‘Green Zebra’, black-shoulder ‘Black Krim’, and deeply pleated ‘Costoluto Genovese’ (whose slices are flower-shape) were grown only by hardcore heirloom vegetable gardeners. Now, because of the increased interest in gardening—and specifically of heirloom varieties—you can get these and some of the other popular heirlooms at most local garden centers. Tomatoes are probably
always going to be the most
popular vegetable for home
gardeners to grow. They’re one
of the most shared vegetables
on Instagram because they’re
ubiquitous in the home garden.
Add the fact that there are
so many types of tomatoes that
experts can only estimate the
number at about 15,000,
and you have endless photo
opportunities.

Much the same is true of
heirloom dried beans, which
are more buttery, smoother,
and tastier than newer, more
common beans. For bean
collectors, though, the taste is
often just a happy bonus from
these stunningly beautiful
marvels of nature.

Specimens like ‘Zuni Gold’,
with its raised white edges,
or purple ‘Bloomin’ Prairie’
would look just as at home
in a jewelry box as in a pot
of water. Dried beans are so
spectacular that bean jewelry is
a thing. Diamonds? No. More
forward-thinking, ecologically
aware brides are now sporting
engagement beans on their
fingers. Actually they aren’t,
but multistrand necklaces of
bright-color beans are for sale
online at this very moment,
most often on Etsy.

Part of what attracts people to
just staring at dried beans and
using them for decorative pur-
poses is knowing that when you
cook dried beans, no matter how
colorful they are, they almost
instantly lose their looks—all
but the ‘Orca’ bean, which was
bred specifically to maintain
its orca whale–like black and
white spots when cooked.

FANCY NEW DISCOVERIES

Just so you know: It wasn’t
a Kardashian that “broke”
the Internet, but a corn.
Seriously. In 2012, Greg
Schoen, a corn-growing
prodigy (yes, there is such a
thing, and if you didn’t know
this, you obviously aren’t ready
to hop on a plane and go digging
through goat poop just yet),
shared a photo of a corn variety
that he had been developing.
It had originally been developed
by his corn mentor (again,
yes, this is totally a thing), Carl
Barnes, who in the 1980s got in
touch with his indigenous heri-
tage and started growing older
Native corn as a hobby.

The result of the work done
by these two men was ‘Glass
Gem’, the corn that “broke”
the Internet in 2012 when Schoen
posted a photograph of it on
his Facebook page.

I’ve been growing ‘Glass
Gem’ corn since 2014, when
someone who follows me on
Instagram shared her seeds
with me. This is part of the
thing about Instagram veg-
etable nerds. Veggie photos and
their corresponding seeds get
shared and traded around the
world without a single ticker-
tape, commission, or opening
bell. We don’t need the fanfare.
If someone messages us asking
for a seed, we stick it in an en-
velope and send it their way.

‘Glass Gem’ is the most
spectacular vegetable that I’ve
grown and shared on social
media. With its transluscent
kernels in hues of pinks, blues,
and greens, it’s the epitome of
Instagram starshine.

New varieties of tomatoes
such as currant-like ‘Candy-
land’ are also social media–
ready due to their unique size.
Plus, they’re still new and novel
enough to surprise and delight
people when seen.

‘Dropshot’ (Tägetes filifolia),
a variety of the common mari-
gold, is a ferny-looking plant
with unremarkable flowers
that is native to Latin America
and Mexico but new to North
America. It’s pretty but not a
specimen that you’d instantly
think of as Instagram-worthy.
I mean, it’s no ‘Glass Gem’
corn. But this is where the
captioning on Instagram
comes in—because Instagram
isn’t just about the photos,
it’s about the stories. Good
photo descriptions can take
a veggie that might appear
bland and mundane and
make you realize that the thing
at which you’re looking is in
fact extraordinary.

The greenery of this marigold,
for example, is plain and
wouldn’t attract a lot of atten-
tion on its own in the world of
Instagram. To give a better un-
derstanding of the plant, you
have to describe in the caption
what makes it unique. And just
what does make this marigold

HOW TO POST YOUR PICS
Some hashtags to use:
#growyourown
#homegrownveggies
#myvegetablegarden
#oldfarmersalmanac
#uglyproduce
Some accounts to follow:
@blackgirlswithgardens
@humanswhogrowfood
@savvygardening
@theartofdoingstuff (the author’s)
@theoldfarmersalmanac
@uglyproduceisbeautiful
THIS IS THE CORN THAT BROKE THE INTERNET!

#THEARTOFDOINGSTUFF
#NATIVESEEDS
#GLASSGEM

Photo: thomaslennie/Getty Images
unique? This mundane floral greenery is not only edible but also explodes in your mouth with an incredibly strong, sweet, black licorice flavor.

Part of what makes a vegetable great for social media—sharing is introducing people to foods that they’ve never seen or heard of.

**THINGS GONE WEIRD**

We’ve all grown something that turned weird. A tomato that looks like it has a nose, carrots with legs, or, as in my case, sweet corn that looks a little smutty. It doesn’t matter—this is all perfect for posting on Instagram, and it’s not about just the Instaglamor. Insects, diseases, and individual triumphs like your very first homegrown lettuce will be appreciated.

Corn smut is a corn disease that spreads rapidly, covering the cobs with a fungus. I had this on my corn a few years ago and posted a picture of it on Instagram because it was so terrifyingly hideous. It was then that I learned from a fellow Instagrammer who commented that while corn smut is indeed a disease, it’s also a fungal delicacy called “huitlacoche” that you can use in quesadillas, eggs, or anything else in which you like to put . . . well . . . fungus.

Yes, Instagram is great for showing off whatever it is that you want to show off, but it’s even better for learning. If you post a photo of a never-before-seen insect, disease, lump, or bum in your garden, someone out there will know exactly what it is.

Yes, “bum.” It’s a carrot I grew that literally looks like it has legs and a bum.

The sense of pride you feel upon posting a photo of a deeply deformed carrot is unparalleled: Yes, I grew it myself! Yes, it looks like a bum! And yes, I am undeniably proud of it! Does this make sense? Not necessarily, but neither does wanting to show off a big scratch or bruise, and many of us love doing that. You don’t even have to grow
photo opportunities yourself. Walk around any farmers’ market and you’ll be able to pick up all kinds of Instagram-worthy vegetables. Heirloom tomatoes, specialty onions, or 2-foot-tall stalks of brussels sprouts covered in those firm little devil heads (my term of endearment for them). Interesting pumpkins and squash seem to be crowd favorites at markets not just because of how unique they are but also because they serve double duty in acting as both decoration and food. That stunning ‘Fairy Tale’ pumpkin you bought for your front porch last year also happens to make delicious ravioli or soup.

Vegetables are not beaded, don’t cost thousands of dollars, and would rot to liquid if you hung them in your closet, but Instagram-worthy veggies and produce have one quality that haute couture doesn’t: You can reproduce them just by sticking a tiny piece of them—a seed—into the dirt. Sharing photos of heirloom and unusual vegetables in the raw leads to sharing seeds for them.

Those rare, jewel-like ‘Zuni Gold,’ ‘Stangenbohne Whitsenhuisen,’ and ‘Blooming Prairie’ bean seeds? A gardener whom I follow on Instagram sent me those seeds when I promised to plant, nurture, and pass along the seeds from their resultant plants. I did this in 2020. And those ‘Black Futzu’ and ‘Hopi’ pumpkins? I got those seeds from a gardener on Instagram as well.

By sharing photos of these unadorned, raw, dirt-covered, freshly picked vegetables—the ones passed down from generation to generation and the newer varieties from pioneers like Carl Barnes—we’re keeping foods from disappearing in a way that previous generations never could: by giving them worldwide recognition in an instant, one photo and one seed at a time.

Karen Bertelsen, of Hamilton, Ontario, is the founder of the lifestyle blog The Art of Doing Stuff.
GO WITH THE GRAIN

Whether for breads or bragging rights, you’ll get a rise out of growing grains.

By Sara Pitzer
Grains are among the easiest plants to grow in home gardens—and growing may be the easiest part of it. Before dropping the first seed to the ground, consider this:

- How much grain do you want or need to harvest: enough to make bread for a year, or are you experimenting with a new crop?
- Do you have the proper conditions: sun from dawn to dusk, an inch or so of rain or irrigation per week, and well-drained, moderately fertile soil?
- Can you buy equipment jointly with other growers or borrow or rent what you’ll need—for example, seed cleaners, seed hullers, winnowers, flour mills?
- Will you have the time, energy, equipment, and muscle to harvest, thresh, winnow, and hull the grain?
- Do you have storage space that is dry, and free of insects and rodents and where the temperature is consistent and no higher than 70°F?

**How Much To Grow**

Start small. Growing grains is easy. Threshing, winnowing, and hulling them takes raw, brute energy. As a beginner, it’s likely that you’ll lose a lot of grain in these final steps. Consider a trial area in the first year so that you can learn how the grain behaves, what its cultivation problems are, how long it takes you to handle it, and how it is affected by varying climate conditions.

(continued)

**Fielding Your Oats?**

Let us know how your grain’s growing at Almanac.com/Feedback or post pics and tag us @thefarmersalmanac.
WHICH GRAIN TO GROW

AMARANTH AND QUINOA
Amaranth does best in warm climates; quinoa, in cool regions. Both are large, broadleaf, native American plants high in protein and other nutrients, easy to grow, and useful as grains or vegetables.

BARLEY
Barley is a fast-maturing grain that thrives in cool weather, does well in alkaline soil, and contains more soluble fiber than do oats.

BUCKWHEAT
Buckwheat improves soil as you grow it. The seeds grind into a strongly flavored flour.

CORN
The taste of homegrown cornmeal is delightful. To harvest corn as a grain, let a few ears go past their prime, then simply twist the dried corn off the ears.

Millet
Millet thrives in hot, dry climates. Although the seeds are encased in hulls, the hulls are easy to remove: Rub a handful of grain between your palms, and the thin hulls will slip off.

OATS
Oats are best suited to cool climates and have traditionally been one of the easiest grains to grow yet one of the hardest to hull. A new, hull-less oat strain solves this problem. If you’re growing old-style oats to eat, find a method of hulling before you sow.

RICE
Rice requires wet soil and a long, hot growing season. It’s the perfect crop for those low spots in your yard that never dry. You could also start out by growing rice in pots.

RYE
Rye is almost immune to failure. It’s hardy, so you don’t have to worry about frosts, and it will grow in poor soil. It’s also a good cover crop for the garden.

WHEAT
Wheat is a cool-season crop that is easy to grow, harvest, thresh, store, and grind in small amounts. In most regions, it is planted in fall and harvested the following spring.

PREPARING THE SOIL
It takes no more work to prepare the soil for grains than it does for any other garden plant. Most grains thrive in a loose, well-drained, moderately fertile soil in a spot that receives full sun all day. To ensure that your crops get a good start, send a soil sample to your Cooperative Extension service to learn whether any nutrients are in short supply. (*See page 110.*)

SOWING STYLES
Like vegetables, grains are sown in narrow or wide rows or solid blocks. Because some grains are tall, run your rows north and south. This ensures that each plant in the row receives an equal amount of sun. When the rows run east–west, taller plants often shade their shorter neighbors.

Narrow rows are the traditional planting pattern but not the most productive. In this case, you would dig long, shallow trenches with a hoe, spacing the rows far enough apart that you can walk between them to weed or run the rototiller alongside them to cultivate. Because so much space is devoted to paths between rows, you lose productive ground. In addition, you must prepare the soil in the entire bed, not just the areas you plant. To sow, you would sprinkle seeds evenly into the trench and then cover them with soil.

Wide rows are a great way to start for a first-time grain grower. With this method, you create 3- to 4-foot-wide beds that are about 18 inches apart. The width depends on how far in you can reach to weed from both sides of the bed and the amount of space the plants need while they grow.

(continued)
WHEAT StALKS HEAVY WITH GRAIN LEARN HOW TO BOW THEIR HEADS.

-CHINESE PROVERB

planting in wide rows has several benefits. Because you never have to walk on the bed to weed, the soil in the rows stays loose and perfect for root growth. You’ll save money on amendments with this method because you need to work only the soil in the planted rows. And since so much less space is used for paths between rows, you can fit more plants in the same amount of space for a somewhat larger harvest. A wide row accommodates two or more rows of grain, depending on the spacing that the plants require.

Some crops, such as wheat and especially corn, can be grown in a solid block pattern. Essentially, this is a mini-field in which you broadcast the seed evenly over the planting area.

Measure and mark out the rows with twine and stakes, then build up their height a few inches by scooping soil from the path onto the beds. Spread amendments over the rows and till them in. Finally, shape the rows so that the top is flat and level and the sides flare slightly at the bottom. Apply a thick layer of mulch on the path between beds or grow a cover crop such as clover to keep mud and weeds at bay and to help feed the soil for next year’s garden.

Sow by digging trenches with your hoe, sprinkling in some seed, and covering it. Alternatively, lightly scatter or broadcast seed by hand across the rows. After the seed is sown, work it into the soil with a rake. How deep to rake it in depends on the grain. Depths can range from ½ to 2½ inches.

In order to get a good stand of plants, seeds and soil must be in contact. To ensure this, make a pass over the planting area with a lawn roller. No roller? Put down a plank and walk on it for the same result.

HARVESTING A SMALL PLOT

To harvest a small plot (up to 150 square feet), break the heads off the stems. Drop them into a bucket as you work, then spread them out to dry for several days before threshing. Otherwise, you could cut the grain with pruners, leaving a 12-inch stem; bundle a few stems; and hang the harvest to dry, as you would to dry herbs and flowers.

A sickle is a traditional tool that is well suited to small spaces and easy for a novice to use. Cutting with a sickle is a matter of grab-and-cut, grab-and-cut. If you’re right-handed, hold the stalks of grain in your left hand and swing the sickle with the right to cut at ground level. (Left-handed sickles are not as easy to find.) You’ll want to kneel or crouch as you harvest so that you won’t tire too quickly. Lay the cut grain in windrows (small piles along the row), with all heads pointed in the same direction. Let the grain dry for several days before threshing. For larger plots, try harvesting with a blade trimmer.

Although just basic guidelines, these are enough to get you started. And sow it goes!

Excerpted from Homegrown Whole Grains (Storey Publishing, 2009) by Sara Pitzer and used with permission.
**Cape Cod Cupola, Ltd.**

**Cupolas • Weathervanes • Finials**

Quality cupolas in wood and in Azek (PVC) as well as uniquely handcrafted copper weathervanes and finials. Colorful catalog $5. Visit our website at:

www.capecodcupola.com

508-994-2119

78 State Rd., Dept. YG21 • N. Dartmouth, MA 02747

---

**READY FOR ANYTHING.**

Getting prepared or getting healthy? GrainMaker’s American-made, hand-powered grain mills can help you do both. Sized for convenience and function, our mills can make nut butters, grind coffee, mill whole grains and so much more.

Made in Montana ~ GrainMaker.com ~ 855-777-7096
There are plenty of reasons to plant veggies that grow as climbing vines. Vining vegetables produce more per square foot than bush-type varieties, their leaves are easier to monitor for pests, and they ripen near eye level, which makes them easy to pick. Tall trellises in the garden draw the eye upward, expanding the view, and they make a lush backdrop for smaller plants.

Vining vegetables do have a few drawbacks. They may cast unwanted shade on their neighbors, so companion crops must be carefully chosen. You also must provide a sturdy trellis or other support that matches how the plants grow and allows easy access at harvest-time, but this is part of the fun of growing vining vegetables. The tastiest vining veggies include peas, Malabar summer spinach, beans, cucumbers, long-vine tomatoes, and winter squash and small pumpkins. Here’s how to grow each of these crops as a towering success.

**PEAS**
Snap peas, snow peas, and shell peas are cool-season crops that are planted in early spring and form a wall of green in early summer. They prefer to grow straight up, reaching out with curled tendrils to grab tightly to string, netting, or wire fencing. Upright trellises work best. Pea vines can run to 6 feet, with vigorous lateral branches that may require supplemental stakes and strings on the outside of the planting to keep the vines in bounds.

In a sun-drenched garden, you may be able to grow beets on the sunny side of peas, with lettuce on the shady side. After peas pass their prime, try growing a late crop of cucumbers on the same trellis or sow a follow-up crop of Malabar summer spinach (see page 64).

**VARIETIES:** Mildew-resistant ‘Super Sugar Snap’ is the most productive pea that you can grow, with 6-foot vines producing fleshy pods for 3 weeks or more. The eye-catching purple flowers of ‘Golden Sweet’ snow pea are followed by buttery yellow pods. Most shell peas grow to less than 4 feet tall, but ‘Tall Telephone’ will turn a 6-foot trellis into a panel of peas. Always check your seed packet for specifics about the variety you choose.
TOMATOES PRUNED AND TRAINED PROPERLY WILL TOP A 6-FOOT TRELLIS.
EDIBLES

MALABAR SUMMER SPINACH
Beautiful, nutritious, and easy to grow, ‘Red Malabar’ summer spinach (*Basella alba var. rubra*) is a delightful addition to the garden. Its twining red stems studded with glossy green, edible leaves grow more vigorously the hotter summer gets, with pink flowers and purple berry clusters appearing by early fall. Malabar summer spinach will grow on any trellis and can be used to form a green sun screen by being allowed to run up strings. Lower pillar-type plantings are gorgeous, too. Seed germination can be slow, but in many climates Malabar summer spinach reseeds itself after the first year.

BEANS
Long-vine pole beans and scarlet runner beans twine themselves up posts, fences, or strings and need minimal help in finding their way up. Beans’ broad leaves quickly form a dense, top-heavy mass, which is why a tepee or tripod trellis is a good match. The increasing weight of the plants pushes down on a well-balanced tepee trellis, enhancing its resistance to wind. Pole beans cast too much shade for close companions, but adjacent rows of potatoes or peppers may benefit from being in their afternoon shadow.

CUCUMBERS
To grow as many cucumbers as possible in a limited space, put them on a trellis. Trellising increases cucumber yield by 50 percent, even when low tepees or arches are used. Although cucumbers are able scramblers, they are clumsy climbers that often need help in finding their way up trellises made from string, netting, or fencing. Plan to gently poke cucumber stem tips through to the next level to train them up a vertical trellis. Within a day, curled tendrils will secure the vine in place.

VARIETIES: The ‘Fortex’ and ‘Cobra’ varieties set a high quality standard, with crisp, stringless, green pods that are best picked young, as filet beans; they can also be left to grow into full-size snap beans. But while ‘Cobra’ tops out at 5 feet, making it good for tight spaces, ‘Fortex’ vines run 8 feet or more. ‘Dow Purple Pod’ has flat, Romano-type, purple pods that turn green when cooked. Where nights are cool, scarlet runners make beautiful edible ornamentals much loved by hummingbirds and bumblebees. Yardlong beans like ‘Red Noodle’ make excellent crops in hot, humid climates.

VARIETIES: Pickling cucumbers like disease-resistant ‘Little Leaf’ are hard to pick when they are grown on the ground because of their small size, so they should always be trellised. Curved ‘Armenian’ cucumbers and extra-long varieties like ‘Tasty Green’ are rarely seen in stores because they are hard to pack and ship, but they are great fun to grow on a sturdy fence.
ALL OF THE TRELLISED CLIMBERS MENTIONED TURN AIR SPACE INTO GROWING ROOM, SO REACH FOR THE SKY!

TOMATOES

Tomatoes lack the ability to twine or grow tendrils, but they often use their curved leaf stems to hook into trellises. Consistent pruning and tying is required to grow a wall of tomatoes, and you will need a long-vine, indeterminate variety. The most popular pruning practice is to limit plants to two “leaders” by pinching out all side branches from two main stems until the plants are 2 feet tall. As the stems grow, they are tied to their trellis with strips of soft cloth, with training and tying ebbing as flowering starts so that there will be plenty of leaf cover for ripening fruit. Tomatoes handled in this way will top a 6-foot trellis. Be sure to use fencing or other sturdy materials with wide openings for harvesting your crop.

VARIETIES: Work with long-vine, indeterminate varieties that continue to grow and set fruit over a long season. ‘Better Boy’ often performs well on trellises, and ‘Triple Crop’ beefsteak grows vines more than 10 feet long. The 15-foot vines of unstoppable ‘Jasper’ red cherry, an All-America Selections winner from 2013, make it a top choice for overhead arbors. To grow a head-high hedge of cherry tomatoes, try ‘Super Sweet 100’.

SQUASH

One of the most desired add-ons for intensive raised-bed gardens are wire arches or A-frame trellises that bridge the space between beds. Spaghetti squash, winter squash, and small-fruit pumpkins are well suited to growing on high arches because they are naturally long-vine plants that grow fast in warm weather. Plus, the fruit are not harvested until early fall, so it doesn’t matter if they are hard to reach.

Popular and inexpensive, 4x16-foot feedlot or cattle panels can be bent into an arch that is secured to a metal T-post at each end. Some farm supply stores sell half-size “handy panels” that can be fastened together in minutes with zip ties to form a steeple-shape trellis. You also can fashion overhead arbors from fencing attached to flexible hex pipe secured to PVC posts or by tying bamboo rods together into a temporary pergola.

VARIETIES: Open-pollinated spaghetti squash is well endowed with curling tendrils and is a vigorous climber once it finds its support. Among pest-resistant butternuts, ‘Lil’ Dipper’ produces personal-size fruit on full-size vines. Mini-pumpkins and petite pie pumpkins like ‘Baby Pam’ work well on arbors, too.

COLORFUL INSPIRATION
TO ENJOY YOUR GARDEN YEAR-ROUND, BRING NATURE’S HUES INDOORS TO YOUR WALLS.

BY RACHEL PERLS

Photo: yanikap/Getty Images
WHERE DO YOU GO FOR COLOR INSPIRATION when you consider painting an area of your home? Some people choose colors that complement the art on their walls, the oriental rug on the floor, or the pottery in the kitchen cabinets. Others dig a little deeper into their passion or pastime to identify colors that resonate with them. A gardener, however, needs to look no further than the landscape around the house: It is blooming with color ideas.

CHOOSE THE MOOD

A n essential question when picking an interior paint color is, “How do I want to feel in this room?” Paint color can reinforce the desired mood and function of a space, whether you want relaxed and calm or energized and uplifted. Color can also suggest warm or cool temperatures; studies have shown that while the physical temperature in a space does not actually change, people subjectively perceive a room as warmer or cooler depending on the wall color surrounding them. Yellows, oranges, and reds can be experienced as warming a chilly space, while blues and greens visually induce the effect of coolness in a room that feels too hot and sunny.

We all experience color in our environment on many different levels, both consciously and subconsciously. Whether we are attracted to super-bright jewel tones or find comfort in muted, softer colors, there is a palette to support our preferences. Take the time to notice the colors to which you are drawn, and then you can browse your garden for the perfect paint colors.

THE GARDEN’S NEUTRALS

O nce the profusion of greenery in the garden; green is a neutral. Think about it this way: Have you ever seen a color that clashes against the greens of foliage? Whether ripe chartreuse, deep hunter, or soft moss, green is the perfect backdrop for any other color. So, why not bring this versatile hue inside for a similar effect? Greens can infuse a space with a sense of optimism and vitality. Whether light and bright as tender pea shoots or earthy and deep like a sprig of basil, green is a grounding, livable color; everyone can relate to it. Greens in a space can have the effect of pushing back the walls around your windows to let nature inside.
THE PLACE FOR PASTELS
If the desired mood is a serene space, look at soft, light colors. Think about the muted lavender blues of delphiniums and hyacinth or the mix of orange, pink, and yellow blush on the skin of an apricot. This apricot tint could even replace ubiquitous beige. These colors could bring a refreshing, airy ambience to a breakfast nook or inviting bedroom space. When selecting colors, lean toward the more muted, desaturated versions of color that you like, the ones with more white or gray in them; these tend to be more versatile as backdrops in any space. An example would be silvery sage green lamb’s ears.

BRIGHT AND BOLD
Your garden would not be complete without bright colors and neither would some of your rooms. Powerful, strong colors like fuchsia salvia, yellow marigold, and red habanero pepper are wonderful in small doses. Daffodil yellow is joyful and cheery, especially when the paint color is a golden yellow mixed with white or peach.

Consider the proportion of color to a plant’s naturally green surroundings. If paint colors are too bright and intense, your interior surroundings can feel overwhelming—almost vibrating with energy. This energy can be successfully harnessed where motion and momentum are the function of the space, such as, for example, in a corridor or stairway where people are simply moving through the space, not spending any period of time in it. Statement walls are also a great opportunity for a stronger color, as they can be balanced, visually, with calmer-color adjacent walls. It’s important to note that everyone has different tolerances for color saturation. What feels intense and overwhelming to one person may be just right for another. (continued)
Once you have harvested your garden’s range of colorful options, it’s time to translate these colors into paint samples. In preparation for your paint store trip, you may snap some pictures of your inspiration items (leaves, flowers, fruit) to use as references or bring in a sample to compare against paper color chips in the store.

Often, people struggle with how to make the jump from inspiration to paint. As a general rule of thumb, paint colors will appear more saturated and intense once they are covering a wall. When looking at a fan deck or strips of paint colors in the store, always lean toward the grayer, more muted options. They will always appear much brighter once you paint them up, and these are easier colors to live with while still inspiring the mood that you intended.

Just as the quality of light differs from dawn to dusk, so too does overhead or other bulb lighting. Take your samples home and look at the color chips in the spaces where you will be painting that specific color. Examine them at different times of day under natural lighting conditions. Colors will look dramatically different based on their context. Imagine how a red tomato looks nestled amongst greenery versus against brown dirt beneath your feet.

Once you have settled on paint chips that you like, you can return to the store to purchase color samples of these same colors. Paint the sample colors on large pieces of cardboard. (The color of the board does not matter, as you will be fully covering it with two coats of paint, all the way to the edges.) By painting on boards, not directly on your walls, you are able to analyze a color without being influenced by the surrounding or adjacent colors currently on your walls.

As before with the paint chips, analyze the painted cardboard in the space for which you intend it, propped against the wall or taped up. This final step before actual painting should help you determine if the trial paint color fits your taste and goals for the room.

A rainbow of color options awaits in your garden. So, go ahead: Gather an armful of nature’s colors and bring them indoors to enjoy year-round, painted on your walls.

Rachel Perls of Hue Consulting in the San Francisco Bay area is a color consultant (HueConsulting.com).

The warm tones of orange pumpkin, yellow ochre squash, red apples, and wheat grass make an edible bounty and complementary palette of colors. Even the golden browns of dormant plants can be translated into gorgeous wall color. This look is earthy, cozy, and inviting.
DR® Leaf & Lawn Vac

World’s Most POWERFUL Leaf Vacuum!

**Tow-Behind**
- Rated #1 in vacuum power!
- Huge capacity up to 321 gallons
- Folds flat for storage

**Walk-Behind**
- For landscaped or smaller properties
- Easy on/off 8-bushel collector bag
- Self-propelled models available

DRleafvac.com
Request your FREE Product Catalog!
Toll Free: 877-202-1315

SALE
FREE SHIPPING | EASY FINANCING

USA ENGINEERED AND BUILT
Assembled in the USA using domestic and foreign parts.

Follow us: Facebook | Instagram | Twitter | Pinterest
CLOCKWISE FROM LEFT:
Gleanings from the vegetable garden—especially kale, sage, broccoli, fennel, and peas—can feed your soul when tucked into a vase; branch out to snip bouquets from shrubs like winterberry, Japanese maple, redbud, and ninebark; a textural medley of perennial leaves, stems, and seedpods like hostas, campanula, Solomon’s seal, lonicera, and painted ferns says volumes without flowers.
FUN AND FASHIONABLE, FOLIAGE BOUQUETS FIT IN ANYWHERE.

BY TOVAH MARTIN
PHOTOGRAPHS BY KINDRA CLINEFF
Having a party? Fresh cut-flower bouquets can be stunning and would certainly enhance any event. But here’s an idea: Instead of a bounty of blossoms, decorate with greens instead! Increasingly, florists and party planners are forgoing flowers and focusing on other plant parts. Think lush foliage with different shapes and textures in varying shades of green. Imagine sculptural branches bearing berries, fruit, and/or seedpods. Foliage arrangements from sophisticated to simple are a budding trend!

Why go green? Foliage has remarkably intriguing and diverse forms: Options include small branches, leaves, fronds, blades, shoots, vines, and tendrils. Foliage is generally readily available and more reliable than flowers, which can have unpredictable or brief bloom times. Plus, foliage pairs well with almost any attire or decor, and a mass of greenery is relatively easy to arrange, even in the hands of a novice.

Foliage bouquets are novel but not entirely new; the formula for most arrangements includes some foliage. This trend tips the balance toward more greens and more interesting choices than a common filler like...
lemon leaf. It’s an invitation to get creative, and foliage is just the beginning. Berries, bracts, husks, and seedpods might not be in every florist’s cooler, but they’re readily available outdoors. Here come some ideas to create your fairytale floral arrangement minus the flowers.

GATHER MATERIALS

Where to start foraging for foliage? Your garden is probably overflowing with bouquet material. Walk, pause, and look around. Consider possibilities and get out the shears to clip and cut as your heart desires. Basically, you’ll be using the same design skills that you tap when you put a garden together, but on a smaller scale.

Do you love the blue hosta whose rippled leaves resemble corduroy? Hold that thought as you assess the options—or reap a few leaves and you’re under way.

See your trees and shrubs with fresh eyes. Within the green palate, you’ll find a range of hues from the chartreuse of certain Japanese maple trees through the chalky blue/green of eucalyptus. You can layer them like nature does in a forest. Look for interesting shapes. Find colorful varieties of dogwood and other small shrubs. If you have it, prune some brilliant orange spirea foliage and/or ninebark branches bearing bronze leaves. Mix in the textures and weights of evergreens. Want to make a bouquet of boxwood? Consider going with a variegated cultivar.

(continued)
BROADEN YOUR VIEW AND VISION

R eimagine ornamental grasses and trailing vines such as clematis. Houseplants can get into the act—especially tropicals such as bromeliads, air plants, and palms: These create a strong visual statement.

You can even raid the vegetable patch! Pea vines’ curly tendrils are lovely in arrangements. In fact, tendril peas, such as ‘Feisty’, are grown specifically for cut-flower work. Asparagus spears introduce a distinctive form. Kale comes in all sorts of colors, with curly or smooth leaves. And don’t overlook rhubarb. Or broccoli! The result can be cleverly personal yet subtly sophisticated—your choice.

To go beyond green, think berries. Berry canes stand up as strong accents in a bouquet. If the arrangement is going into a vase, raspberries and goosberries (harvested gingerly and with gloves) could be an option. For a handheld bouquet, try thornless blackberries or branches of blueberries. Viburnums and winterberries (available in gold and yellow, as well as traditional red) are wonderful resources in autumn and winter; harvest them before the birds strip your branches. If the leaves have fallen on deciduous berried shrubs like winterberry, you need not worry about wilting. Keep in mind that not all berries cling reliably to the branch; for example, beautyberry (Callicarpa) will shed instantly. Test your choices so that you are not disappointed.

ENGAGE THE SENSES

A rtful arrangements are restful to the eye, but foliage, perhaps more than flowers, begs to be touched. The leaves and stems of hardy geranium are as soft as velveteen; honeysuckle vines are similarly rich. Even coleus feels good in your hands. Make space for the soft, pettable leaves of lamb’s ears (Stachys byzantina), rose campion (Lychnis coronaria), dusty miller (Jacobaea...
maritima), or mullein (Verbascum) in a bouquet. With the right ingredients, this can be a hands-on experience.

Consider giving your bouquet an olfactory accent: Herbs add aroma like flowers add fragrance. Sage, rosemary, thyme, oregano, marjoram, lavender, and scented-leaf geraniums are all apropos. The more senses you invite, the more memories you’ll stoke. Herbs carry symbolism as well. Rosemary is a symbol of remembrance, lavender is associated with devotion and grace, sage suggests wisdom and long life, and other herbs have meanings both ancient and modern, adding yet another dimension to your display.

Scavenge seed heads—sedums, echinacea, meadowsweet, poppy pods, to name a few—to diversify an arrangement with intriguing forms. Dried sea holly is almost identical to the live flower, less the color; ditto for globe thistle. Use these accents sparingly as focal points or make seedpods the theme. Remember, wilting is not a worry.

**PULL IT TOGETHER**

When it comes time to build the bouquet, keep this in mind: If it’s for a vase, will it be seen from all sides or only one side? Will the vase’s design or color(s) compete with your cuttings? Can the vessel carry the bulky weight of leaves and stems sturdily and gracefully?

Beyond this, all of the rules of great design come into play when working with leaves and branches. You want the bouquet to have rhythm flowing throughout and accents to lead the eye. Berries (even green ones) can serve this function, as can seedpods. If accent berries or seedpods are small, bundle them together for impact. Consider staging them asymmetrically. Experiment. Mix it up. Let the action of working with branches and leaves lead you to a calming place. Pulling together an arrangement can feel like a walk in the woods.

When she’s not writing for print media or lecturing, Tovah Martin posts on Facebook at “Plantswise by Tovah Martin.”
ORNAMENTALS

THE PLANTS THAT

OUT-OF-CONTROL
CAT’S CLAW
Once you say “hello” to these invasive thugs, you may never get to say “good-bye.”

BY STEVE BENDER
Don’t! Don’t plant that running bamboo. For if you do (with apologies to Casablanca’s Rick Blaine), you’ll regret it. Maybe not today. Maybe not tomorrow, but soon—and for the rest of your life.

Running bamboos (*Phyllostachys* spp.) are the poster children for plants that get away—invasive plants that people stick in the ground or water that know no bounds and conquer all. Many bamboo species are the fastest growing plants on Earth, adding nearly 4 feet a day. They spread via rampaging rhizomes as thick as a man’s arm. Plant them in your yard now, and resentful neighbors will curse both them and you by next week. Had Dale Carnegie planted bamboo, his landmark book would have borne the title *How to Lose Friends and Outrage People*.

Invasive plants are botanical plagues. They become this way by locating spots (often not in their native habitats) they like so much that they decide to force out every other plant. Seeds, rhizomes, stolons, rooting stems, and bulblets are their ammo. The result can devastate native plants and wildlife.

Vines and ground covers are frequent offenders due to their proclivity for climbing and/or spreading until the end of time. English ivy (*Hedera helix*) blankets tree trunks and carpets woodlands across this land. Asian wisterias (*Wisteria floribunda, W. sinensis*) turn entire mountainsides blue and white when they bloom near my home in north-central Alabama. Oriental bittersweet (*Celastrus orbiculatus*)—its red-and-yellow seedpods the darlings of holiday decorators—grips trees so tightly with its muscular stems that it chokes them to death. Yellow-blooming cat’s claw (*Macfadyena unguis-cati*) absorbs entire houses in Florida. And do I really need to warn anybody about kudzu (*Pueraria lobata*), “The Vine That Ate the South”? Touted years ago as a source for quick shade for Southern porches, it did that...
spectacularly. Then it went on to shade everything else.

No invasive plant is more poorly named than tree-of-heaven (Ailanthus altissima), whose weedy and noxious odors tell us that it belongs in a much hotter place. Native to China and Korea, it became a favorite urban street tree in Europe because of its tolerance of heat, drought, pollution, and the worst soil imaginable. By 1784, seeds sent to Philadelphia had begun a coast-to-coast onslaught in the United States. Suckers punching up through concrete and asphalt amazed city dwellers. In 1943, novelist Betty Smith immortalized it in A Tree Grows in Brooklyn. Today in Pennsylvania, it’s the preferred host of spotted lantern fly, another Chinese import that poses a serious threat to agriculture. Tree-of-heaven is truly a tree from Hell.

Not all invasives are as cosmopolitan. Many torment only certain parts of the country that offer a suitable climate. For example, Scotch broom (Cytisus scoparius) is a hated menace in the arid West. A member of the pea family, it takes nitrogen from the air, so nutrient-poor soil is no problem. Showy yellow blossoms can annually drop more than 10,000 seeds that remain viable for 50 years. In my garden, though, the plant rots. Purple loosestrife (Lythrum salicaria), once hailed for beautiful spires of blossoms that fed pollinators, has a similar story. Favoring sun and wet soil, it turned wetlands in the Northeast and Upper Midwest into monoculture seas of purple and pink. Most states outlawed planting, growing, or selling it. But I could never get it to last more than a year in my garden, no matter how I babied it.

Marauding plants gain a foothold in our gardens by different vectors. Local nurseries are a major one. Look at a map showing territories subdued by privet
Ligustrum spp.), honeysuckle (Lonicera spp.), Japanese barberry (Berberis thunbergii), ice plant (Carpobrotus edulis), Chinese tallow (Triadica sebifera), maiden grass (Miscanthus sinensis 'Gracillimus'), and other villains, and you'll notice that they're usually near a big city. Why? Because these are the locations of most of the nurseries that sold these monsters. Many nurseries still sell them.

Another source is “pass-along plants” —starts of weird or hard-to-find plants shared by gardeners and friends. Most pass-alongs are treasures, but some are downright evil. If someone offers you a start of the hideous scouringrush horsetail (Equisetum hyemale), fearsome Japanese knotweed (Reynoutria japonica), or satanic chameleon plant (Houttuynia cordata 'Chameleon'), they aren’t being nice. They’re getting even. Just say “no.”

Of course, many invasives are things that we innocently plant ourselves in blissful naïveté. Writer and photographer Heather Blackmore-Varkalis rues the day when she planted yellow creeping Jenny (Lysimachia nummularia 'Aurea') in her Chicago garden. “I planted thinking that she would make a nice ground cover in combination with ‘Black Scallop’ ajuga,” Heather recalls. “Then she smothered everything. I pull her up every year, but she won’t stop. She’s a real bully.”

California writer Chris McLaughlin committed the cardinal sin of planting notoriously invasive mint. “Waaaaaay back in the day, I was obsessed with herb gardening,” she says. “Someone gave me a mint plant because I ‘definitely’ needed it. I was so sorry that I planted it. If I ever have it again, it will sit in a pot in cement.”

Nandina domestica is Austin, Texas, garden designer Jenny Peterson’s anathema. Nicknamed “heavenly bamboo” for its bamboo-like foliage and showy red berries, nandina spreads by seeds and roots. Removing it from the ground is harder than uprooting Uncle Charlie from his favorite recliner. “You can never get rid of it,” she warns. “You can clear the bed five times,
Fixing up the house for spring? Don’t forget the shutters!

Call (203) 245-2608 for free brochure/prices or visit our website www.shuttercraft.com

Interior & Exterior Custom Wood Shutters - Endless Cutouts
All Types and Sizes - Full Painting Services - Authentic Hardware
Shipped Nationwide - Family owned and operated since 1986
Showroom Hours are Monday - Friday 9am- 5pm
Shuttercraft, Inc., 15 Orchard Park, Madison, CT 06443
and it still pops up the next season!”

However, let us not be too hard on ourselves. Some truly renowned horticulturists have introduced horribly invasive plants. Among the loathsome weeds of the Pacific Northwest, Himalayan blackberry (Rubus armeniacus) was set loose in the late 1800s by none other than plant breeder Luther Burbank. It grows into a huge, arching shrub. Each cane that touches the ground roots at the tip. (In its defense, its berries are delicious.) The South’s ubiquitous mimosa tree (Albizia julibrissin) entered this country in Charleston, South Carolina, in 1785 under the auspices of noted French botanist André Michaux.

Worst of them all, in my opinion, is ‘Bradford’ Callery pear (Pyrus calleryana), a gift from John Creech, former director of the U.S. National Arboretum in Washington, D.C. He had become smitten with this Chinese pear for its nonfussy nature, tidy form, beautiful spring flowers, and glorious red fall foliage. It was seedless, too—or so he thought. Planting began in 1954 near the University of Maryland. Shortly thereafter, the tree revealed its Achilles heel—a terribly weak branching structure that led it to break easily in high wind. New cultivars lacking this weakness soon came to market. When they cross-pollinated with ‘Bradford’, boom! Suddenly, ‘Bradford’ was fertile, producing dense thickets of viciously thorny seedlings that crowd out all other trees. Their flowers stink, too.

Are there lessons to be learned from all of this? Yes. First, favor plants native to your area of the country. They’re less likely to take over. Second, don’t believe it when “experts” claim to know all about what a new plant will do. They probably don’t. Finally, if a neighbor or friend seems a bit too eager to give you a start of a plant that you haven’t heard of, be afraid. Be very afraid.

A garden writer for nearly 40 years, Steve Bender is from Hoover, Alabama, and author of The Grumpy Gardener (Southern Living, 2017).
“To you, it’s the **perfect lift chair.**
To me, it’s the **best sleep chair** I’ve ever had.”
— J. Fitzgerald, VA

**Make your home more comfortable than ever**

You can’t always lie down in bed and sleep. Heartburn, cardiac problems, hip or back aches – and dozens of other ailments and worries. Those are the nights you’d give anything for a comfortable chair to sleep in: one that reclines to exactly the right degree, raises your feet and legs just where you want them, supports your head and shoulders properly, and operates at the touch of a button.

Our **Perfect Sleep Chair®** does all that and more. More than a chair or recliner, it’s designed to provide total comfort. **Choose your preferred heat and massage settings, for hours of soothing relaxation.** Reading or watching TV? Our chair’s recline technology allows you to pause the chair in an infinite number of settings. And best of all, it features a powerful lift mechanism that tilts the entire chair forward, making it easy to stand. You’ll love the other benefits, too. It helps with correct spinal alignment and promotes back pressure relief, to prevent back and muscle pain. The overstuffed, oversized biscuit style back and unique seat design will cradle you in comfort. Generously filled, wide armrests provide enhanced arm support when sitting or reclining. **It even has a battery backup in case of a power outage.**

**White glove delivery** included in shipping charge. Professionals will deliver the chair to the exact spot in your home where you want it, unpack it, inspect it, test it, position it, and even carry the packaging away! You get your choice of Genuine Italian leather, stain and water repellent custom-manufactured Duralux™ with the classic leather look or plush MicroLux™ microfiber in a variety of colors to fit any decor. **New Chestnut color only available in Genuine Italian Leather and long lasting Duralux™. Call now!**

**The Perfect Sleep Chair®**

1-888-865-0032

Please mention code 114322 when ordering.

Because each Perfect Sleep Chair is a custom-made bedding product, we can only accept returns on chairs that are damaged or defective.

© 2021 firstSTREET for Boomers and Beyond, Inc.
BUILDING THE BONES
OF A PLACE

LANDSCAPING

HOW TO USE TREES AND SHRUBS TO ADD STRUCTURE AND FORM TO YOUR PROPERTY

BY JAMIE GIBBS
LANDSCAPING

Trees and shrubs define our landscape and surroundings more than most of us realize. They can complement a structure or space, provide scale or alter perception, shelter or mask, decorate or coordinate—and more—depending on the cultivars chosen and how they are used. Consider your surroundings, even your neighborhood, and before you buy and begin digging, think about how various plants mature and the care that they might need.

Large specimen trees are those that outlive us and add the greatest value to a home. Typically, they are selected for fall color or hardiness or because they are evergreen. A specimen tree can mature at 40 to 50 feet tall or more and have a canopy as much as 30 feet in diameter. These trees should not be planted within 30 feet of a house or power lines to ensure a natural growth habit and prevent damage to property. Most create shade, so shallow tree roots, under-planting possibilities, mulch, and the risk of decreased lawn vigor should be considered.

Be aware that unusual trees add diversity to a neighborhood’s tree inventory, and diversity helps to prevent the spread of disease and blight. Decide how much shade, shape, and color you wish to create by using trees in your landscape and/or consult a local arborist or nursery to determine their appropriateness for your site.

The following large specimen trees have a 30- to 40-foot spread.

- **Cryptomeria**, or Japanese cedar (*Cryptomeria japonica*): pyramidal
- **Cucumbertree magnolia** (*Magnolia acuminata*): layered; flowering
- **Dawn redwood** (*Metasequoia glyptostroboides*): pyramidal deciduous
- **European hornbeam** (*Carpinus betulus* ‘Columnaris’ or ‘Fastigiata’): spreader; interesting bark
- **Golden larch** (*Pseudolarix amabilis* [kaempferi]): pyramidal deciduous; golden fall foliage
- **Katsura tree** (*Cercidiphyllum japonicum*): spreader; caramel-color leaves in fall and subtle caramel scent

**THE GRANDEUR OF BIG TREES**

DAWN REDWOOD

EUROPEAN HORNBEAM

KATSURA
Smaller trees suit small spaces or small suburban properties. These trees top out at 20 to 30 feet, with a drip line (canopy) of about the same diameter. The proportion of house and lot to tree size becomes visually important in smaller, sometimes confined spaces. When selecting a tree, keep in mind that you don’t want one that will require extensive pruning to keep its branches away from the house or utility lines.

On the subject of pruning: Consider removing the lower branches (paradoxically called “high pruning”) of some trees to allow for people and machinery to pass under the canopy. This creates a narrower top for some species and with it the opportunity to plant understory shrubbery, perennials, and ground covers. High pruning can help to maintain a pleasant canopy while at the same time permitting some light to filter under the tree and perhaps create an area for sitting or a shade plant garden. Some to consider . . .

- **Japanese snowbell** (Styrax japonicus): compact, deciduous; horizontal branching; rounded crown; bell-shape white flowers
- **Paperbark maple** (Acer griseum): spreader; colorful, curling bark
- **Pawpaw** (Asimina triloba): deciduous; purple flowers yield to edible fruit
- **Red buckeye** (Aesculus pavia): deciduous clump-forming shrub/small tree; irregular rounded crown
- **White fringe tree** (Chionanthus virginicus): spreader, rounded habit; showy white flowers

---

**NOT-SO-BIG TREES**

**Options for Wetlands**

Many trees will not be happy in areas that retain moisture, but these large cultivars love a boggy environment:

- **Bee bee tree** (Evodia daniellii): spreader, umbrella-shape; fragrant white flowers; 25 to 30 feet at maturity
- **Pond cypress** (Taxodium distichum ‘Nutans’): pyramidal deciduous; roots protrude aboveground when in/near water; 30 to 70 feet tall at maturity
- **Weeping willow** (Salix babylonica): spreader; stout trunk, with crown of downward sweeping branches; 30 to 50 feet tall at maturity
“Ornamental” refers to a tree with attractive characteristics such as overall shape, foliage color, flowers, or unusual seedpods. These low- to medium-height trees (10 to 20 feet and 20 to 25 feet tall, respectively) require less maintenance and do not shade large areas. Cultivars not commonly seen include...

- Cockspur hawthorn (Crataegus crusgalli): dense, low-branched, broad-rounded crown; seasonally orange to scarlet to purple-red foliage; white flowers
- Japanese tree lilac (Syringa reticulata): oval/rounded crown; fragrant, creamy white flowers
- Paperbark birch (Betula papyrifera): vase shape; exfoliating white bark
- Ruby red horse chestnut (Aesculus carnea): deciduous; oval/rounded habit; red flowers
- Saucer magnolia (Magnolia x soulangeana): spreader, rounded crown
- White fringe tree (Chionanthus virginicus): See “Not-So-Big Trees” on page 89. (continued)
Wintergold White Fir
Fairy Hair Japanese Maple
Green Penguin Scots Pine
Miss Grace Dawn Redwood

Starts at $54.99
Starts at $64.99
Starts at $54.99
Starts at $124.99

1000+ Varieties of Conifers, Maples, Ginkgoes, and More!

Free Shipping on orders over $150
Gift Plants with orders over $50

Exquisite trees, shipped straight from Oregon to your doorstep.

“The plant arrived on time, it was packaged perfectly, and it looks super healthy. I would definitely recommend Conifer Kingdom and I will definitely be ordering again.” ~Christine F.

www.coniferkingdom.com
LANDSCAPING

Growing to eye level or slightly taller, shrubs form the character, “rooms,” and visual appeal of your landscape. Their shapes add form and definition year-round, create views, guide the eye, and even hide “mechanicals” (e.g., air-conditioning units). Select shrubs with these criteria in mind: height variation; foliage (e.g., evergreen vs. deciduous; variety in leaf shape and texture), flower color; blooming season; winter interest; and compatibility with your soil and moisture conditions. To reduce pruning chores, select a shrub with a natural shape that fits your design. These reliable performers mature at around 15 feet:

- **Golden vicary** (*Ligustrum x vicaryi*): multistem; vase shape; deciduous; flowers attract bees and butterflies
- **Harry Lauder’s walking stick** (*Corylus avellana* ‘Contorta’): multitrunked, suckering; unusual shape
- **Ninebark** (*Physocarpus*): upright; spreader; deciduous; pink or white flowers
- **Serviceberry** (*Amelanchier*): vase shape; slightly fragrant white flowers
- **Viburnum** (*Viburnum*): many hybrids; genus of 150 to 175 species vary in height, spread, and flowers

**BORDER SHRUBS**

Any shrub that naturally grows to less than 18 inches tall can be considered a woody ground cover. These are more low-maintenance than annual or perennial flowers, help to control weeds and soil erosion, reduce the need for mulch, and serve as year-round design features. Many have trailing, creeping, or cascading habits. These dwarf shrubs are useful cultivars in flower borders, rock gardens, or the crevices of stone walls. They will add hardy height variation, color variation, texture, and winter interest, along with subtle fruit and flower interest. These include . . .

- **‘Bobozam’**, aka Mr. Bowling Ball, American arborvitae (*Thuja occidentalis*): dense; globular; yellow and green foliage
- **‘Everlow’ yew** (*Taxus x media*): wide spreader
- **‘Grey Owl’ red cedar** (*Juniperus virginiana*): spreader; vase shape; gray-green foliage
- **‘Monloo’ Japanese yew** (*Taxus cuspidata*): spreader; compact; dense
- **‘Tiny Tim’ American arborvitae** (*Thuja occidentalis*): conical; aromatic yellow-green to green foliage

Use this information as a shopping list to do online research that will help you to make successful long-lasting decisions.

**FOUNDER PLANTINGS**

Use varieties of boxwood (*Buxus*) shrubs as foundation plantings and in borders. Boxwood is easy to maintain and adaptable to various soils and moisture conditions. To prevent winter burn and avoid some varieties that have an unpleasant odor, consider these boxwoods:

- **‘Aureovariegata’** (*Buxus sempervirens*): rounded to broad-rounded; variegated foliage
- **‘Green Mountain’** (*Buxus*): upright; naturally conical
- **‘Green Velvet’** (*Buxus*): evergreen; foliage turns bronze in winter
- **‘Winter Gem’** (*Buxus sinica var. insularis*): compact; many-branched; mounded; evergreen

Jamie Gibbs is the principal designer at Jamie Gibbs Associates, a landscape architecture and interior design firm that specializes in the renovation and restoration of period properties. He has offices in Indianapolis, Indiana; New York City; and Amsterdam, Netherlands.
Dear Reader,

The drawing you see above is called For Now and Ever. It is completely composed of dots of ink. After writing the poem, I worked with a quill pen and placed thousands of these dots, one at a time, to create this gift in honor of the love of two of my dearest friends.

Now, I have decided to offer For Now and Ever to those who have known and value its sentiment as well. Each litho is numbered and signed by hand and precisely captures the detail of the drawing. As an anniversary, wedding, or Valentine’s gift for your husband or wife, or for a special couple within your circle of friends, I believe you will find it most appropriate.

Measuring 14" by 16", it is available either fully-framed in a subtle copper tone with hand-cut double mats of pewter and rust at $145*, or in the mats alone at $105*. Please add $18.95 for insured shipping. Returns/exchanges within 30 days.

My best wishes are with you.

Sextonart Inc. • P.O. Box 581 • Rutherford, CA 94573
(415) 989-1630

All major credit cards are welcomed. Please call between 10 A.M.-5 P.M. Pacific Standard Time, 7 days a week. Checks are also accepted. Please include a phone number.

*California residents please include 8.0% tax

Please visit our website at www.robertsexton.com
Forcing the Issue

WEARY OF WINTER? BRING ON SPRING WITH INDOOR BLOOMS!

By Tovah Martin

PHOTOS BY KINDRA CLINEFF AND TOVAH MARTIN
OPPOSITE, CLOCKWISE FROM TOP LEFT: Narcissus ‘Martinette’; yellow twig dogwood; Bellis ‘Tasso Strawberries and Cream’ (front); Euphorbia ‘Ascot Rainbow’; Tulipa ‘Princess Irene’ (front); flowering quince branches
THIS PAGE: Forsythia branches with daffodils
BRANCHING OUT

Okay, this is really about “branching in,” and anyone can do it. Branches to be forced need to have experienced about 6 weeks of winter’s cold. Collecting them in February usually ensures the necessary chill period. Make a foray outdoors with pruning shears specifically to fetch forcing material (of course, ask the owner’s permission if the plants are not your own). Look for slender tips rather than thick limbs—branches less than ½ inch in diameter are ideal. Forsythias and pussy willows are perfect candidates that are ubiquitous across the United States and Canada; what’s more, forcing them is a tradition. Also apropos are flowering fruit trees of any type, as well as redbuds and serviceberry. Did your magnolia take a hit during that last wind event? Gather the fallout. Flowering quince is also frequently enlisted for forcing, and pruning this bush that tends to look disheveled will lead to a more shapely shrub.

AS GARDENERS, WHETHER INDOORS OR OUTSIDE, we all realize the importance of winter (some plants need a cold spell!)—but at times those dark days can seem interminable. For those of you who twiddle your thumbs while waiting for the snow to melt and spring flowers to burst forth, here are ways to use those idle hands to make, or “force,” vernal buds on twigs, perennials, and bulbs to awaken in your home. It’s surprisingly easy. All that you need is some space in the refrigerator and a plan.

A green thumb is not a prerequisite and, actually, you only need the fridge if you’re forcing bulbs. For twigs and perennials, you just need to think ahead. Basically, you’re tricking plants into performing precociously by fiddling with their environment. They assume that an accelerated winter came and went and now it’s spring, even though the calendar says that it’s February.
Forsythias and pussy willows are **PERFECT CANDIDATES** that are ubiquitous across the United States and Canada; what’s more, **FORCING THEM IS A TRADITION.**

Got nothing to prune? Not a problem! After a brutal winter storm, walk around your neighborhood and gather the twigs and branches littering the streets and sidewalks. Of course, not all spring bloomers work for this purpose. Lilacs can be stubborn. But if a lilac tree is toppled in a blizzard, it’s worth a try. All of these broken and pruned branches will be recycled into bouquets.

So how do you make this happen? Take those branches—whether they bear flower buds or not—recut the stems at a sharp slant, and place them in a vase of water. Put the vase in a cool window (50° to 55°F is ideal) and wait 2 to 4 weeks, changing the water weekly to keep it fresh. You should begin to see the promise of buds slowly swelling, and you will have your mini spring preview.

**FORCING FLOWERS**

Forcing bulbs is a tradition that has been practiced by Europeans since the late 17th century (long before refrigeration); today, a fridge with a constant temperature of approximately 40°F streamlines the process. The goal for us and our ancestors has always been the same: to trick the bulbs into thinking that winter happened and spring is here by delivering a teeth-chattering interlude followed by a period of relative (50° to 60°F) warmth.

Choose and buy the bulbs you want to force in October or November and store them in their mesh or paper bags in the refrigerator’s crisper drawer, away from food (especially apples), until early December. Then they need to begin forming roots; your next step depends on...
which bulbs you are growing.

Let’s start with the simplest bulbs to force, hyacinths. For these, it helps to have an hourglass-shape forcing vase for each bulb. Take the bulbs out of the refrigerator and add water to the vase. Place the bulb in the vase so that it sits pointed end up with the bottom just grazing the water. Then put the vase on a cool (below 65°F) windowsill and wait for the roots to plunge down. Flower clusters form in a few weeks. Replace the water every week or so, and you’re in for a long duration of colorful beauty, plus nirvana for your nose. Caution: Wear gloves when working with hyacinths—some people can get a dermatological reaction—and be careful not to touch your eyes.

Early-blooming Iris reticulata cultivars are equally copacetic, but they perform best in potting soil—any bag of potting medium will do. Pot them by clustering several bulbs shoulder-to-shoulder in a shallow container with their necks poking just above the potting soil, water them lightly, and tuck the whole package in the refrigerator for 3 to 4 weeks, or until you see green growth. Then take them out for your instant spring: the windowsill version.

The process is the same for hardy narcissus (aka daffodils). Keep them in the refrigerator in a mesh or paper bag until December and then pot them by placing the bulbs pointed end up nestled closely together, burying them an inch below the surface of the potting soil. Refrigerate for 8 to 10 weeks, or until you see green growth, and then liberate them onto your win-

**FORCING BULBS** has been practiced by Europeans since the **LATE 17TH CENTURY** (long before refrigeration).
You can also force your favorite **EARLY-BLOOMING SPRING PERENNIALS**. Shade-lovers such as hellebores, heucheras, columbines, lamiums, tiarellas, primroses, Jacob’s ladder, bugleweed, and lungwort **ARE THE EASIEST TO FORCE.**

dowsill. Note that paperwhites are nonhardy narcissus; they do not require (or want) any chilling period. Pot them immediately when purchased.

Tulips are another story—or two stories, actually. The first tulips are the large-flower hybrids that practically define spring. You know: the welcome brigades of bright color that are popular in parks and other public displays. These can be forced by putting them into the refrigerator when purchased in October or November; potting them in December (pointed end up and an inch below the soil surface); returning the planted pot to the refrigerator for another 12 to 15 weeks; and then bringing them out and enjoying flowers after about 2 weeks.

Want tulips faster? Try the second type, species tulips such as *Tulipa clusiana* ‘Cynthia’, *T. linifolia*, and *T. batalinii*, available through most specialty mail-order bulb purveyors. These look like someone shrunk the hybrid tulip: All parts—including the bulb, the foliage, and the flowers—are downsized. So, they’re not as flashy, but they require the cold treatment for only 8 weeks or less after potting them in December. When you see green coming from the bulbs, bring them out of the refrigerator into sunlight to brighten your life.

**BUDDING BLOOMS**

You can also force your favorite early-blooming spring perennials. Shade-lovers such as hellebores, heucheras, columbines, lamiums, tiarellas, primroses, Jacob’s ladder (*Polionium*), bugleweed (*Ajuga*), and lungwort (*Pulmonaria*) are the easiest to force. Dig a clump from your garden in autumn (or buy the plants during autumn sales), pot them up (a generous container will produce best results), set them in a sunny window, and water when their soil is dry. Sometimes they go dormant, but don’t let this spook you. Stay the course, and they will sprout up again in late winter long before the snow and ice have melted outside. By early March, as the days get longer, they will start brandishing spring flowers.

Once you get your mojo going with the shade-lovers mentioned, try some easy, fast-blooming, sun-loving spring performers like English daisies (*Bellis*) and euphorbias. Given a bright south-facing window, these might just supply a dose of all that we love about the upcoming growing season.

Place them as close as possible to the windowpanes. Rotate the plants often to expose all sides equally to light and water when the soil is dry. They might not bloom as abundantly indoors as they typically would outdoors, in real time, but one flower in your windowsill brings bliss and gives you boasting rights for having accomplished your own personal spring preview! Talk about a force of nature!

Whether you grow your own or reap the bounty of a farmers’ market, put aside a portion to make these peak-season specialties.

PRESERVE YOUR HARVEST THE TASTY WAY!

PHOTOGRAPHS BY SAMANTHA JONES, QUINN BREIN COMMUNICATIONS

SHERRIED JALAPEÑO PICKLES

These fiery peppers can be eaten plain or chopped and added to guacamole, salsa, or other dishes. The juice alone makes a fine hot sauce for table use.

- fresh, firm jalapeño peppers
- sweet or dry sherry
- apple cider vinegar

With the tip of a sharp paring knife, pierce each pepper in several places to allow the vinegar to penetrate. Pack peppers tightly into half-pint jars and add 2 tablespoons of sherry to each (double this if you are using pint jars). Fill the jars with vinegar and cover. Do not process. Store in a cool, dark place for 1 week, then add more vinegar to replace what has been absorbed by the peppers. These pickles do not need processing, but they should be stored in the refrigerator to be kept crisp.
COOKING FRESH

PEACH–RED ONION–TOMATO SALSA

1½ cups peeled and finely diced fresh, ripe peaches
1½ cups cored, seeded, and finely diced tomatoes
½ cup finely chopped red onion
½ cup finely chopped bell pepper
¼ cup chopped pickled jalapeños, plus 1 teaspoon juice
1 to 2 tablespoons fresh lime juice
1 tablespoon chopped fresh basil
1 tablespoon chopped fresh Italian parsley
2 to 3 teaspoons sugar
salt, to taste

In a bowl, combine all of the ingredients. Refrigerate for several hours. Stir and taste occasionally, adjusting the seasonings as needed. Transfer to one or more jars with a lid. Cover and store in the refrigerator. Makes about 4 cups.

(continued)
2 heads fresh dill
2 long hot peppers
2 cloves garlic, peeled
½ teaspoon cayenne pepper, divided
1 pound small fresh green beans
1 cup apple cider vinegar
2 tablespoons salt

Place one head of dill in each of two sterilized pint canning jars, along with one hot pepper, one garlic clove, and ¼ teaspoon cayenne. Pack the beans upright, dividing evenly between the jars.

In a saucepan over medium-high heat, combine vinegar and salt with 1½ cups of water. Bring to a boil, then pour into jars, leaving ½ inch of headspace. Seal and process for 15 minutes.

Makes 2 pints.
America’s Original

Field & Brush Mower

- Mow grass up to 8’ high
- Cut brush up to 3” thick
- Engines up to 20 HP
- Decks up to 34” wide
- Power Steering

USA ENGINEERED AND BUILT
Assembled in the USA using domestic and foreign parts.

Request your FREE Product Catalog!
Toll Free: 877-202-1315

DRfieldbrush.com

The Old Farmer’s Almanac Garden Guide 103
FOR FRIES:
Preheat oven to 425°F. Get out a large baking sheet. Peel and cut sweet potatoes in half lengthwise, then cut into equal-size strips or wedges about ½ inch thick. Place sweet potatoes in a single layer on baking sheet. Drizzle with oil and toss to coat. In a bowl, combine Parmesan, bread crumbs, brown sugar, salt, cumin, chili powder, and cayenne. Sprinkle bread crumb mixture over the fries and toss to coat. Place in a single layer on baking sheet. Bake on center oven rack for 30 minutes, or until tender and well browned, turning once or twice during cooking.

FOR CREMA:
In a bowl, combine sour cream, minced jalapeño pepper, or to taste. Chill until ready to serve with fries. Makes 4 servings.

—Bonnie Aeschliman, Collierville, Tennessee
Preheat oven to 425°F, or according to pizza dough package directions.

Spray a 15x10-inch baking sheet lightly with cooking spray. Sprinkle evenly with bread crumbs. Press dough into pan. Cook for 5 to 7 minutes, or until edges are slightly brown and center is dry to the touch.

In a food processor or blender, process cream cheese, 1 teaspoon of dill, chives, and lemon juice until ingredients are well incorporated.

In a bowl, toss sweet potatoes with oil, scallions, thyme, and remaining 1 teaspoon of dill.

Spread cream cheese mixture onto slightly cooled pizza dough. Evenly place sweet potato mixture over cream cheese mixture.

Bake for 15 to 20 minutes, or until sweet potatoes are slightly softened.

Sprinkle with Parmesan and allow to cool for 5 to 10 minutes. Cut into 12 squares and serve warm.

Makes 12 servings.

—Arlene Erlbach, Morton Grove, Illinois

SECOND PRIZE: $150

SAVORY SWEET POTATO FLATBREAD

¼ cup panko bread crumbs
1 can (13.8 ounces) refrigerated pizza dough
1 package (8 ounces) cream cheese, softened
2 teaspoons dried dill, divided
1 teaspoon dried chives
1 teaspoon fresh lemon juice
2 cups peeled and finely sliced raw sweet potatoes
2 tablespoons olive oil
½ cup thinly sliced scallions
½ teaspoon dried thyme
¼ cup shredded Parmesan cheese
FOR DRESSING: In a bowl, whisk together oil, vinegar, maple syrup, salt, and pepper. Stir in basil.

FOR SALAD: Grease a baking sheet or line with parchment paper.

In a skillet over medium-high heat, combine pecans, honey, and cayenne. Cook for 3 minutes, or until mixture simmers and is foamy. Spread onto prepared baking sheet, separating slightly with a fork; set aside to cool completely.

Pierce sweet potatoes and cook in microwave on high for 4 to 5 minutes, or until tender. When cool enough to handle, remove skins and chop into ½-inch cubes.

In a large salad bowl, mix together greens, pears, and sweet potatoes.

Pour dressing over salad and toss to coat.

Top with bacon, blue cheese, and pecans before serving.

Makes 4 servings.

—Patricia Harmon, Baden, Pennsylvania

TOMATO RECIPE CONTEST

Send us your favorite recipe using tomatoes. The recipe must be yours, original, and unpublished. Amateur cooks only. Enter at Almanac.com/Tomato or send your recipe to Garden Guide Recipe Contest, P.O. Box 520, Dublin, NH 03444. Include your name and mail and email addresses. We will pick three winners and award cash prizes: $250 for first prize, $150 for second prize, and $100 for third prize. The deadline for entries is July 30, 2021. All entries become the property of Yankee Publishing, which reserves all rights to the materials. Winning recipes will appear in the 2022 Garden Guide and on Almanac.com.
GLASS ACTS
Beautiful to behold and lovely to listen to, bell-shape WIND CHIMES from APRICOTMINT also serve as unique sun catchers. Handblown and molten glass-fused (no paints or glazes applied), they feature a pinewood striker and hang from a macramé rope and metal hook. Welcome the wind and enjoy the mellifluous tones! $44.99 at ApricotMint.com.

WATER PROOF
Water worries evaporate and plants thrive when they’re in a LECHUZA POT, with its proprietary self-watering system: Choose from four liners, depending on plant needs; a water-level indicator “reads” the reservoir in the bottom and tells you when to add water and how much. Numerous pot shapes, sizes, and styles; from $14.99 at Lechuza.us.

HELLO, HEDGEHOG!
To brighten spirits and its surroundings, this LIFELIKE RESIN STATUARY sports solar-powered white LED lights in the center of its succulents! It’s sure to add whimsy and charm to flower beds or borders, patio or porch. Requires 6 to 8 hours of sun/light; includes a weatherproof battery box. About $40 at Plowhearth.com.

SOAK WITH STYLE
Let DRAMM COLORSTORM GARDEN HOSES, in a rainbow of colors (blue, green, orange, berry, yellow, and red), put pizzazz into plant watering times! Need to target pots or planters? Add a Rain Wand (several models, same or different color). Made in the USA, each has a lifetime warranty. Everyone will want to water! About $65 for a 50-foot hose and $25 for a wand at garden supply stores and Amazon.com.

REAL ESTATES FOR THE BIRDS
Our feathered friends will nest in comfort when they land in a yard with a hand-built and -painted WOODEN EXPRESSIONS BIRDHOUSE. Constructed of ¾-inch medium-density overlay and with a copper or aluminum roof, these avian abodes are easily cleaned out and can be left outdoors year-round; most can be post-mounted or hung. Created with common birds in mind: eastern bluebirds, chickadees, tufted titmice, swallows, nuthatches, downy woodpeckers, finches, and more. Single-nest styles include Hut, Lodge, Rustic Cabin, Post, Loft, and Manor ($35–$119); four-nest: Estate ($189–$229); eight-nest: Haven ($359). Made in the USA; free shipping. WoodenExpressions.com.

Note: All prices subject to change.
HAPPY FEET
Being outdoors, working or walking, has never been so comfortable! Muck Boot Company’s new OUTSCAPE FOOTWEAR, in two lightweight, slip-on styles—sneaker (Low) or boot (Chelsea) for both men and women—sports a 100 percent waterproof Muckskin finish; breathable mesh lining; memory foam footbed; self-cleaning rubber sole for surefooted traction; and more in a choice of earth tones. From $100 (Low) to $120 (Chelsea) at Muckbootcompany.com.

A GROW HOME
Plants and people thrive in FREEDOM GREENHOUSES. Made of eastern white cedar, with innovative ventilation designs, optional automatic watering benches, solar panels and battery, and triple-wall polycarbonate glazing, each is self-contained, self-tending, and customizable. Available in many sizes, including “lean-to” for attachment to existing structures. Made in Maine by Mainegarden.com.

A GROW DOME
Plants soak up rays all day long under the dome of a SUNBUBBLE. Compact when folded, a roundhouse when set up. Made of UV-stabilized PVC and flexible fiberglass rods. A zipper door allows entry, and adjustable vents enable control of temperature and airflow. Comes in a storage bag; stakes/pegs secure it to the ground. Two sizes, both 6 feet 5 inches high, from $210. Made in the UK and available at Amazon.com.

A IS FOR APRON
This carryall concept borrows from the beloved kangaroo: The cotton canvas ROO APRON has pockets in the bib and a lined pouch at the waist that opens to release fresh vegetables into the sink, deadheaded flowers into the compost heap, weeds into the trash, or whatever you please. The Joey Apron (named for a baby kangaroo) has no bib. One size fits all. Roo ($36) and Joey ($34) are available at Rooapron.com.

TESTING, 1, 2, 3
The success of any plant depends on the proper combination of soil, sunlight, and moisture. Take the guesswork out of growing with the ALTREE 3-IN-1 SOIL METER. In 10 minutes, it reveals soil pH (acidity or alkalinity) and moisture level (so that you know when it’s time to water), as well as the light intensity. (Not suited for testing grow lights or liquids.) No batteries or electricity needed! About $16 at Amazon.com.

A GROW HOME
Plants and people thrive in FREEDOM GREENHOUSES. Made of eastern white cedar, with innovative ventilation designs, optional automatic watering benches, solar panels and battery, and triple-wall polycarbonate glazing, each is self-contained, self-tending, and customizable. Available in many sizes, including “lean-to” for attachment to existing structures. Made in Maine by Mainegarden.com.

REEL EASY
Mowing the lawn is like a walk in the park with the SCOTTS 2000-20S CLASSIC PUSH REEL LAWN MOWER. Its wide (20-inch) cutting width and relatively light weight (34 pounds) make it easy to maneuver. Adjustable for a 1- to 3-inch cutting height, plus it’s cordless and quiet. Preferred for small, flat lawns (less than ¼ acre). About $150 at Amazon.com.
Are your vegetables not producing as they should? Perhaps the soil lacks potassium. Are your perennials underperforming? They could be begging for organic matter. How’s your grass compared to the proverbial “other side of the fence”? Time to check the soil’s acidity.

A soil test can resolve these questions and many more. Adding organic compost or fertilizer or any other supplement makes sense only if the soil needs it. Here are some ways to test your soil.

LABORATORY TEST
It’s best to have the test done in a laboratory close to where you live so that the recommendations you receive make sense for your soil and climate. Most state Cooperative Extension services have labs or a list of labs that they recommend. A standard garden soil test (usually less than $20) will measure your soil’s pH level (acidity or alkalinity), nutrient content (calcium, magnesium, potassium, phosphorus, and sulfur), and percentage of organic matter. The soil test report will be customized with suggested amendments for what you plan to grow—vegetables, flowers, lawn, trees.
Most labs recommend that you take samples from six to eight spots in the garden or lawn area that you want tested and then mix these samples together to create a representative sample of the area. Samples should be taken from a depth of 6 inches for gardens, 3 to 4 inches for lawns, and 6 to 8 inches for trees and shrubs. Each sample should be taken with a clean spade, shovel, or trowel. Mix the soil samples in a clean plastic bucket. Air-dry the soil and remove any stones and other debris. When ready, mail about 1 cup of soil to the Extension service or lab. Check your Extension service’s Web site for forms to fill out, cost, and more specific instructions for taking and mailing a sample. Find the service nearest you at Almanac.com/cooperative-extension-services.

**SELF-TEST KIT**
You can test your soil yourself with a self-test kit. Available at garden centers, hardware stores, and online, these kits generally test the soil’s pH level and nitrogen, phosphorus, and potassium content. Basic kits run from $10 to $25, while more comprehensive ones can cost more.

When using a DIY soil-testing kit, you mix a small soil sample with water and then add different chemicals from the kit to the mixture. The soil sample will change color. A color chart in the kit will tell you the pH level and nutrient content in your soil. Most kits also include instructions for adjusting the soil condition.

**EARTHWORM TEST**
The best time to check for earthworms is in the spring when the soil’s temperature has reached 50°F and its surface is moist. Use a shovel to dig up about 1 cubic foot of soil. Put the soil on a piece of cardboard, break it apart, and look for earthworms. If your soil is healthy, you’ll find at least 10 earthworms. If your soil has fewer than 10 worms, add more organic matter to it.

**PANTRY pH TESTS**
- Place 2 tablespoons of soil in a bowl and add ½ cup vinegar. If you find that the mixture fizzes, then you have alkaline soil.
- Place 2 tablespoons of soil in a bowl and moisten it with distilled water. Add ½ cup baking soda. If the mixture fizzes, you have acidic soil.
- If it does not react to either test, the soil has a neutral pH.

**LEARN THE pH LEVELS OF PLANTS**
To see the pH preferences of a wide variety of trees, shrubs, flowers, and vegetables, turn to page 116.

—Mare-Anne Jarvela

### NATURAL CLUES TO YOUR SOIL’S HEALTH

**WEEDS HELP YOU TO ASSESS YOUR SOIL’S CONDITION.**

<table>
<thead>
<tr>
<th>IF YOU HAVE . . .</th>
<th>YOUR SOIL IS . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>bracken fern, dock, horsetail, stinging nettle, Virginia creeper</td>
<td>acidic</td>
</tr>
<tr>
<td>broom sedge, burdock, horsetail, stinging nettle</td>
<td>calcium-deficient</td>
</tr>
<tr>
<td>cattail, horsetail, Joe Pye weed, marshmallow</td>
<td>wet or poorly draining</td>
</tr>
<tr>
<td>common mullein, mugwort</td>
<td>infertile</td>
</tr>
<tr>
<td>crabgrass, field bindweed, plantain, quackgrass</td>
<td>hardpan or compacted</td>
</tr>
<tr>
<td>dead nettle, lamb’s-quarter, pigweed, purslane</td>
<td>nutrient-rich</td>
</tr>
<tr>
<td>knapweed</td>
<td>nutrient-deficient</td>
</tr>
<tr>
<td>lamb’s-quarter, wild mustard</td>
<td>alkaline</td>
</tr>
<tr>
<td>lamb’s-quarter, ox-eye daisy, wild buckwheat</td>
<td>phosphorus-deficient</td>
</tr>
</tbody>
</table>

**AS WEEDS GRADUALLY DECOMPOSE, THEIR NUTRIENTS ARE RECYCLED BACK INTO THE SOIL.**

<table>
<thead>
<tr>
<th>IF YOU HAVE . . .</th>
<th>YOUR SOIL HAS . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>comfrey</td>
<td>nitrogen, potassium, and phosphorus</td>
</tr>
<tr>
<td>dandelions</td>
<td>iron, potassium, and phosphate</td>
</tr>
<tr>
<td>legume-type weeds like vetch and clover</td>
<td>nitrogen</td>
</tr>
<tr>
<td>stinging nettle</td>
<td>iron and nitrogen</td>
</tr>
<tr>
<td>yarrow</td>
<td>iron and phosphate</td>
</tr>
</tbody>
</table>
### WHAT’S WRONG WITH MY HOUSEPLANTS?

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>CAUSE</th>
<th>CURE</th>
<th>SYMPTOM</th>
<th>CAUSE</th>
<th>CURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long, pale leaves; small new leaves</td>
<td>Not enough light</td>
<td>Give plant more light</td>
<td>Leaf edges are crinkly and brown</td>
<td>Lack of humidity</td>
<td>Mist leaves, or place pot on tray of moist pebbles</td>
</tr>
<tr>
<td>Leaves curl under or have yellow or brown spots</td>
<td>Too much light</td>
<td>Move plant away from light source, or shade plant with blinds or sheer curtain</td>
<td>Lower leaves turn pale and drop off</td>
<td>Lack of fertilizer</td>
<td>Fertilize plant regularly during growing season</td>
</tr>
<tr>
<td>Mushy stems; lower leaves curl and wilt</td>
<td>Too much water</td>
<td>Water only when soil is dry to touch; make sure drain hole is not clogged</td>
<td>Leaves turn yellow or curl and wilt</td>
<td>Too much heat</td>
<td>Move plant to cooler spot in house; be sure plant is not close to heat vent or on top of TV</td>
</tr>
<tr>
<td>Leaf tips are brown and leaves wilt</td>
<td>Not enough water</td>
<td>Soak pot for 20 minutes in water and let drain; water when soil is dry to touch</td>
<td>Plant wilts between waterings; roots growing out of drainage hole</td>
<td>Pot too small</td>
<td>Repot plant into a container one size larger</td>
</tr>
</tbody>
</table>

---

### GOOD IDEAS FOR INDOOR HOUSEPLANTS

**HEAT AND LIGHT**
- Windowsill plants that get leggy may be getting too much heat, not too little sun. For even growth, set up a table by your sunniest window and turn the pots regularly.
- Most flowering plants need to be within 3 feet of a sunny window and require 9 to 12 hours of light per day.
- Do not put flowering houseplants near drafts or heat from registers. They are very sensitive to changes in air temperature.

**WATER**
- Give plants room-temperature water. Cold water can injure the roots and leaves.
- Save water from cooking pasta or vegetables, cool it, and use it to water houseplants.
- If household succulents, such as jade plants, won’t bloom, stop watering, keep the plant root-bound, and increase the light.
- Do not overwater. More houseplants die from overwatering than from anything else.
- When the humidity is low, especially in winter, cluster houseplants together and mist them more frequently.
- Give your houseplants an occasional bath. Put them into the tub or shower and rinse gently with tepid water, using the showerhead or a handheld sprayer.

**FERTILIZER**
- Feed flowering houseplants a high-phosphorus mix and foliage plants a high-nitrogen blend. Do not fertilize any houseplants during the winter months.
- When potting plants, add crushed eggshells to the soil to improve drainage and to supply lime and other nutrients.
- Move plant to cooler spot in house; be sure plant is not close to heat vent or on top of TV.

**ENCOURAGE GROWTH**
- For healthier plants, pick off dead leaves and faded flowers.
- To encourage bushiness, pinch off up to 1 inch of new stem and leaf growth.
- Repot houseplants in the spring, when the days are getting longer.
Glass flycatchers originated in Europe in the late 1800s and were used in and around Victorian homes for years. They hung from an available tree branch or a hook on a porch or were placed indoors on a table or counter. In southern plantation homes, they were often covered with a lady’s handkerchief to block the view of the dead insects. In Mexico and Mediterranean countries, they were baited and hung in orchards or set in fields to capture fruit flies.

Early examples were hand-blown. Their irregular shape, plus any air bubbles produced in the glass-making process, added to their desirability. By the 1930s, catchers were formed using automatic bottle machines. They were produced in a variety of translucent colors (light and deep amethyst, amber, and aqua green), and many were embossed with designs or initials.

All operate on the principle that flies are attracted to food. The bottle has a narrow neck and relatively wide body, in a shape similar to that of a cider or vinegar jug. The bottle’s footed bottom has an inverted funnel that sticks up into the inside and thus creates a moatlike circular reservoir in the base of the bottle. The moat is filled with a sweet mixture that lures the flies. (Years ago, a mixture of milk and water, with a dash of arsenic, was sometimes used.) Flies enter the trap through the bottom of the funnel, ingest the sweetened solution, and, unable to find the small funnel opening again to escape, drown in the reservoir. A cork placed in the bottle’s mouth seals the top (which originally needs to be open to allow for pouring the sugar mixture).

A glass flycatcher makes an attractive, safe, and beneficial addition to an outdoor living area, capturing flies, fruit flies, hornets, and yellow jackets. Antique and reproduction flycatchers can be purchased for about $20 to $90, but you can make one for pennies.

In the homemade version explained here, flies are attracted to the sugar solution, enter the jar through the holes in the lid, and drown in the liquid.

—David McCormick

---

**YOU WILL NEED:**

<table>
<thead>
<tr>
<th>widemouth glass jar with lid</th>
</tr>
</thead>
<tbody>
<tr>
<td>hammer and nail</td>
</tr>
<tr>
<td>sugar</td>
</tr>
<tr>
<td>water</td>
</tr>
</tbody>
</table>

1. Remove the lid from the jar and make holes in it that are large enough for a fly to crawl through.
2. Make a solution of one part sugar and four parts water.
3. Pour the solution into the jar, filling it one-third full.
4. Screw on the lid, then hang or place the jar in the problem area.

As often as needed, the contents may be added to your compost pile. After being washed with hot, soapy water, the flycatcher is ready for use again.

---

Photos: glass flycatcher, Dora Snyder
The Moon is that mystical, spherical body that revolves around Earth every 29 days or so. It passes from its “new” phase, when it is missing from the evening sky, to full, when it is a glorious, golden disc lighting the landscape on its nighttime journey, and then back to new again. This dance, during which the Moon visits the entire zodiac 13 times each year, influences plant growth, the harvest, and produce preservation.

PLANTING
Earth is most fertile and receptive to the planting of seeds when the Moon is in a water or earth sign. Check the phase of the Moon when you are considering the type of crop to sow or plant: Aboveground crops grow better if they are sown or planted in the light of the Moon, or its waxing phase, and root and underground vegetables are favored in the dark of the Moon, when it is waning.

HARVESTING
Harvesting crops follows a similar schedule. The earth signs are best, but water signs are also good. Consider the Moon’s phase before you begin gathering from your garden. Plants that produce leafy, fruity parts above the ground are best picked during the Moon’s waxing phase, while plants such as potatoes and carrots, which produce bulbous, dense, underground parts, are at their peak of perfection during the Moon’s waning phase.

PRUNING
Pruning bushes and trees “flows” best when the Moon is in a fire sign. When your goal is to encourage growth in hedges and ornamentals, prune when the Moon is waxing. When you want these plants to retain their shape for as long as possible, prune when the Moon is waning.

DESTROYING PESTS
The fire signs are excellent times to get rid of pests and weeds. Fire transmutes, so this energy takes unwanted insects and plants and reduces them to their innate and reusable form (in the compost pile).

DRIYING HERBS
The fire signs are also arid. Herbs picked especially for drying will dehydrate well when harvested at these times.

Preserving
Vegetables and fruit that you want to preserve by canning, pickling, or fermenting (as in sauerkraut) will do best when you undertake these activities during the Moon’s waning phase. The water signs are also ideal for preserving.

—Celeste Longacre
PLANTING BY THE MOON’S PHASE, 2021

- Plant annual flowers and vegetables that bear crops above ground during the waxing of the Moon.
- Plant flowering bulbs, biennial and perennial flowers, and vegetables that bear crops below ground during the waning of the Moon.
- The Planting Dates columns give the safe periods for planting in areas that receive frost. The Moon Favorable columns give the best planting days within the Planting Dates based on the Moon’s phases for 2021.
  - Aboveground crops are marked *.
  - (E) means early; (L) means late.
  - Map shades correspond to shades of date columns.

<table>
<thead>
<tr>
<th>PLANT</th>
<th>Planting Dates</th>
<th>Moon Favorable</th>
<th>Planting Dates</th>
<th>Moon Favorable</th>
<th>Planting Dates</th>
<th>Moon Favorable</th>
<th>Planting Dates</th>
<th>Moon Favorable</th>
<th>Planting Dates</th>
<th>Moon Favorable</th>
</tr>
</thead>
</table>

For more about growing vegetables, visit Almanac.com/Gardening.
An accurate soil test will indicate your soil pH and will specify the amount of lime or sulfur that is needed to bring it up or down to the appropriate level. A pH of 6.5 is just about right for most home gardens, since most plants thrive in the 6.0 to 7.0 (slightly acidic to neutral) range. Some plants (azaleas, blueberries) prefer more strongly acidic soil in the 4.0 to 6.0 range, while a few (asparagus, plums) do best in soil that is neutral to slightly alkaline. Acidic, or sour, soil (below 7.0) is counteracted by applying finely ground limestone, and alkaline, or sweet, soil (above 7.0) is treated with ground sulfur.

### pH Preferences of Trees, Shrubs, Flowers, and Vegetables

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Optimum PH Range</th>
<th>Common Name</th>
<th>Optimum PH Range</th>
<th>Common Name</th>
<th>Optimum PH Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TREES AND SHRUBS</strong></td>
<td></td>
<td><strong>FLOWERS</strong></td>
<td></td>
<td><strong>VEGETABLES</strong></td>
<td></td>
</tr>
<tr>
<td>Apple</td>
<td>5.0–6.5</td>
<td>Black-eyed Susan</td>
<td>5.5–7.0</td>
<td>Tulip</td>
<td>6.0–7.0</td>
</tr>
<tr>
<td>Azalea</td>
<td>4.5–6.0</td>
<td>Bleeding heart</td>
<td>6.0–7.5</td>
<td>Zinnia</td>
<td>5.5–7.0</td>
</tr>
<tr>
<td>Beautybush</td>
<td>6.0–7.5</td>
<td>Cana</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birch</td>
<td>5.0–6.5</td>
<td>Carnation</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blackberry</td>
<td>5.0–6.0</td>
<td>Chrysanthemum</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blueberry</td>
<td>4.0–5.0</td>
<td>Clematis</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boxwood</td>
<td>6.0–7.5</td>
<td>Coleus</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cherry, sour</td>
<td>6.0–7.0</td>
<td>Coneflower, purple</td>
<td>5.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crab apple</td>
<td>6.0–7.5</td>
<td>Cosmos</td>
<td>5.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogwood</td>
<td>5.0–7.0</td>
<td>Crocus</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fir, balsam</td>
<td>5.0–6.0</td>
<td>Daffodil</td>
<td>6.0–6.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemlock</td>
<td>5.0–6.0</td>
<td>Dahlia</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrangea, blue-flowered</td>
<td>4.0–5.0</td>
<td>Daisy, Shasta</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrangea, pink-flowered</td>
<td>6.0–7.0</td>
<td>Daylily</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juniper</td>
<td>5.0–6.0</td>
<td>Delphinium</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laurel, mountain</td>
<td>4.5–6.0</td>
<td>Foxglove</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemon</td>
<td>6.0–7.5</td>
<td>Geranium</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lilac</td>
<td>6.0–7.5</td>
<td>Gladiolus</td>
<td>5.0–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maple, sugar</td>
<td>6.0–7.5</td>
<td>Hibiscus</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak, white</td>
<td>5.0–6.5</td>
<td>Hollyhock</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>6.0–7.5</td>
<td>Hyacinth</td>
<td>6.5–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peach</td>
<td>6.0–7.0</td>
<td>Iris, blue flag</td>
<td>5.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pear</td>
<td>6.0–7.5</td>
<td>Lily-of-the-valley</td>
<td>4.5–6.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pecan</td>
<td>6.4–8.0</td>
<td>Lupine</td>
<td>5.0–6.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plum</td>
<td>6.0–8.0</td>
<td>Marigold</td>
<td>5.5–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raspberry, red</td>
<td>5.5–7.0</td>
<td>Morning glory</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhododendron</td>
<td>4.5–6.0</td>
<td>Narcissus, trumpet</td>
<td>5.5–6.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow</td>
<td>6.0–8.0</td>
<td>Nasturtium</td>
<td>5.5–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FLOWERS</strong></td>
<td></td>
<td>Pansy</td>
<td>5.5–6.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alysium</td>
<td>6.0–7.5</td>
<td>Peony</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aster, New</td>
<td>6.0–8.0</td>
<td>Petunia</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>England</td>
<td>6.0–8.0</td>
<td>Phlox, summer</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby’s breath</td>
<td>6.0–7.0</td>
<td>Poppy, oriental</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s button</td>
<td>6.0–7.5</td>
<td>Rose, hybrid tea</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bee balm</td>
<td>6.0–7.5</td>
<td>Rose, rugosa</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Begonia</td>
<td>5.5–7.0</td>
<td>Snapdragon</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VEGETABLES</strong></td>
<td></td>
<td>Sunflower</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asparagus</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bean</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beet</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broccoli</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brussels sprout</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabbage</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrot</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cauliflower</td>
<td>5.5–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Celery</td>
<td>5.8–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chive</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collard</td>
<td>6.5–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cucumber</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggplant</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garlic</td>
<td>5.5–8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kale</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leek</td>
<td>6.0–8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lettuce</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okra</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onion</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pea</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepper, sweet</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potato</td>
<td>4.8–6.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pumpkin</td>
<td>5.5–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radish</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spinach</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash, crookneck</td>
<td>6.0–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash, Hubbard</td>
<td>5.5–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swiss chard</td>
<td>6.0–7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomato</td>
<td>5.5–7.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watermelon</td>
<td>5.5–6.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Use the Garden Planner to create your perfect vegetable garden this year.

- Quickly find the best plants to grow. You can even select “easy” veggies if you’re a beginner.
  - Draw beds and move plants around to get the perfect layout on your computer. Have fun creating!
- Our garden planning tool calculates how many plants fit your space to avoid wasting seed.
  - We’ll also calculate all your planting and harvesting dates—and send along email reminders of when to do what.

Grow your future with a well-planned garden!

**LEARN MORE AT ALMANAC.COM/GARDENPLANNER**

Versions available for PC and Mac.
FROSTS & GROWING SEASONS

Dates given are normal averages for a light freeze (29° to 32°F, or –2° to 0°C); local weather and topography may cause considerable variations. The possibility of frost occurring after the spring dates and before the fall dates is 30 percent for the U.S. and 33 percent for Canada. The classification of freeze temperatures is usually based on their effect on plants. A light freeze kills only tender plants, with little destructive effect on other vegetation.

### UNITED STATES (alphabetical by state abbrev.)

<table>
<thead>
<tr>
<th>CITY</th>
<th>GROWING SEASON (DAYS)</th>
<th>LAST SPRING FROST</th>
<th>FIRST FALL FROST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juneau, AK</td>
<td>168</td>
<td>Apr. 27</td>
<td>Oct. 13</td>
</tr>
<tr>
<td>Pine Bluff, AR</td>
<td>226</td>
<td>Mar. 26</td>
<td>Nov. 8</td>
</tr>
<tr>
<td>Denver, CO</td>
<td>153</td>
<td>May 4</td>
<td>Oct. 5</td>
</tr>
<tr>
<td>Hartford, CT</td>
<td>159</td>
<td>May 1</td>
<td>Oct. 8</td>
</tr>
<tr>
<td>Wilmington, DE</td>
<td>202</td>
<td>Apr. 12</td>
<td>Nov. 1</td>
</tr>
<tr>
<td>Athens, GA</td>
<td>214</td>
<td>Apr. 3</td>
<td>Nov. 4</td>
</tr>
<tr>
<td>Cedar Rapids, IA</td>
<td>157</td>
<td>Apr. 30</td>
<td>Oct. 5</td>
</tr>
<tr>
<td>Boise, ID</td>
<td>152</td>
<td>May 7</td>
<td>Oct. 7</td>
</tr>
<tr>
<td>Chicago, IL</td>
<td>193</td>
<td>Apr. 18</td>
<td>Oct. 29</td>
</tr>
<tr>
<td>Indianapolis, IN</td>
<td>171</td>
<td>May 25</td>
<td>Oct. 14</td>
</tr>
<tr>
<td>Topeka, KS</td>
<td>173</td>
<td>Apr. 22</td>
<td>Oct. 13</td>
</tr>
<tr>
<td>Lexington, KY</td>
<td>183</td>
<td>Apr. 20</td>
<td>Oct. 21</td>
</tr>
<tr>
<td>Worcester, MA</td>
<td>167</td>
<td>Apr. 28</td>
<td>Oct. 13</td>
</tr>
<tr>
<td>Baltimore, MD</td>
<td>234</td>
<td>Mar. 27</td>
<td>Nov. 17</td>
</tr>
<tr>
<td>Portland, ME</td>
<td>152</td>
<td>May 5</td>
<td>Oct. 5</td>
</tr>
<tr>
<td>Lansing, MI</td>
<td>147</td>
<td>May 9</td>
<td>Oct. 4</td>
</tr>
<tr>
<td>Willmar, MN</td>
<td>146</td>
<td>May 5</td>
<td>Sept. 29</td>
</tr>
<tr>
<td>Jefferson City, MO</td>
<td>189</td>
<td>Apr. 14</td>
<td>Oct. 21</td>
</tr>
<tr>
<td>Helena, MT</td>
<td>123</td>
<td>May 19</td>
<td>Sept. 20</td>
</tr>
<tr>
<td>Bismarck, ND</td>
<td>122</td>
<td>May 19</td>
<td>Sept. 19</td>
</tr>
<tr>
<td>North Platte, NE</td>
<td>146</td>
<td>May 6</td>
<td>Sept. 30</td>
</tr>
<tr>
<td>Concord, NH</td>
<td>127</td>
<td>May 19</td>
<td>Sept. 24</td>
</tr>
<tr>
<td>Newark, NJ</td>
<td>209</td>
<td>Apr. 8</td>
<td>Nov. 4</td>
</tr>
<tr>
<td>Albany, NY</td>
<td>153</td>
<td>May 4</td>
<td>Oct. 5</td>
</tr>
<tr>
<td>Cincinnati, OH</td>
<td>175</td>
<td>Apr. 23</td>
<td>Oct. 16</td>
</tr>
<tr>
<td>Tulsa, OK</td>
<td>210</td>
<td>Apr. 4</td>
<td>Nov. 1</td>
</tr>
<tr>
<td>Portland, OR</td>
<td>255</td>
<td>Mar. 11</td>
<td>Nov. 22</td>
</tr>
<tr>
<td>Williamsport, PA</td>
<td>164</td>
<td>May 2</td>
<td>Oct. 14</td>
</tr>
<tr>
<td>Kingston, RI</td>
<td>142</td>
<td>May 12</td>
<td>Oct. 2</td>
</tr>
<tr>
<td>Rapid City, SD</td>
<td>146</td>
<td>May 7</td>
<td>Oct. 1</td>
</tr>
<tr>
<td>Memphis, TN</td>
<td>225</td>
<td>Mar. 27</td>
<td>Nov. 8</td>
</tr>
<tr>
<td>Amarillo, TX</td>
<td>179</td>
<td>Apr. 21</td>
<td>Oct. 18</td>
</tr>
<tr>
<td>Cedar City, UT</td>
<td>122</td>
<td>May 28</td>
<td>Sept. 28</td>
</tr>
<tr>
<td>Richmond, VA</td>
<td>202</td>
<td>Apr. 10</td>
<td>Oct. 30</td>
</tr>
<tr>
<td>Burlington, VT</td>
<td>145</td>
<td>May 10</td>
<td>Oct. 3</td>
</tr>
<tr>
<td>Seattle, WA</td>
<td>243</td>
<td>Mar. 17</td>
<td>Nov. 16</td>
</tr>
<tr>
<td>Parkersburg, WV</td>
<td>179</td>
<td>Apr. 23</td>
<td>Oct. 20</td>
</tr>
<tr>
<td>Casper, WY</td>
<td>107</td>
<td>May 31</td>
<td>Sept. 16</td>
</tr>
</tbody>
</table>

### CANADA (alphabetical by province abbrev.)

<table>
<thead>
<tr>
<th>CITY</th>
<th>GROWING SEASON (DAYS)</th>
<th>LAST SPRING FROST</th>
<th>FIRST FALL FROST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calgary, AB</td>
<td>99</td>
<td>May 29</td>
<td>Sept. 6</td>
</tr>
<tr>
<td>Edmonton, AB</td>
<td>123</td>
<td>May 15</td>
<td>Sept. 16</td>
</tr>
<tr>
<td>Red Deer, AB</td>
<td>108</td>
<td>May 24</td>
<td>Sept. 10</td>
</tr>
<tr>
<td>Dawson Creek, BC</td>
<td>76</td>
<td>June 8</td>
<td>Aug. 24</td>
</tr>
<tr>
<td>Kelowna, BC</td>
<td>150</td>
<td>May 8</td>
<td>Oct. 6</td>
</tr>
<tr>
<td>Prince George, BC</td>
<td>120</td>
<td>May 20</td>
<td>Sept. 18</td>
</tr>
<tr>
<td>Vancouver, BC</td>
<td>180</td>
<td>Apr. 21</td>
<td>Oct. 19</td>
</tr>
<tr>
<td>Victoria, BC</td>
<td>208</td>
<td>Apr. 14</td>
<td>Nov. 9</td>
</tr>
<tr>
<td>Brandon, MB</td>
<td>92</td>
<td>June 6</td>
<td>Sept. 7</td>
</tr>
<tr>
<td>Lynn Lake, MB</td>
<td>87</td>
<td>June 10</td>
<td>Sept. 6</td>
</tr>
<tr>
<td>Thompson, MB</td>
<td>58</td>
<td>June 18</td>
<td>Aug. 16</td>
</tr>
<tr>
<td>Winnipeg, MB</td>
<td>116</td>
<td>May 21</td>
<td>Sept. 15</td>
</tr>
<tr>
<td>Fredericton, NB</td>
<td>125</td>
<td>May 22</td>
<td>Sept. 25</td>
</tr>
<tr>
<td>Saint John, NB</td>
<td>165</td>
<td>Apr. 30</td>
<td>Oct. 13</td>
</tr>
<tr>
<td>Gander, NL</td>
<td>115</td>
<td>June 6</td>
<td>Sept. 30</td>
</tr>
<tr>
<td>St. John’s, NL</td>
<td>117</td>
<td>June 11</td>
<td>Oct. 7</td>
</tr>
<tr>
<td>Halifax, NS</td>
<td>164</td>
<td>May 8</td>
<td>Oct. 20</td>
</tr>
<tr>
<td>Sydney, NS</td>
<td>135</td>
<td>May 27</td>
<td>Oct. 10</td>
</tr>
<tr>
<td>Truro, NS</td>
<td>103</td>
<td>June 7</td>
<td>Sept. 19</td>
</tr>
<tr>
<td>Fort Simpson, NT</td>
<td>61</td>
<td>May 31</td>
<td>Aug. 21</td>
</tr>
<tr>
<td>Yellowknife, NT</td>
<td>102</td>
<td>May 31</td>
<td>Sept. 11</td>
</tr>
<tr>
<td>Kapuskasing, ON</td>
<td>75</td>
<td>June 18</td>
<td>Sept. 2</td>
</tr>
<tr>
<td>Kingston, ON</td>
<td>161</td>
<td>Apr. 28</td>
<td>Oct. 7</td>
</tr>
<tr>
<td>Ottawa, ON</td>
<td>135</td>
<td>May 13</td>
<td>Sept. 26</td>
</tr>
<tr>
<td>Sudbury, ON</td>
<td>124</td>
<td>May 21</td>
<td>Sept. 23</td>
</tr>
<tr>
<td>Timmins, ON</td>
<td>86</td>
<td>June 13</td>
<td>Sept. 8</td>
</tr>
<tr>
<td>Toronto, ON</td>
<td>161</td>
<td>May 4</td>
<td>Oct. 13</td>
</tr>
<tr>
<td>Charlottetown, PE</td>
<td>142</td>
<td>May 20</td>
<td>Oct. 10</td>
</tr>
<tr>
<td>Summerside, PE</td>
<td>154</td>
<td>May 13</td>
<td>Oct. 15</td>
</tr>
<tr>
<td>Montréal, QC</td>
<td>168</td>
<td>Apr 25</td>
<td>Oct. 11</td>
</tr>
<tr>
<td>Québec, QC</td>
<td>129</td>
<td>May 17</td>
<td>Sept. 24</td>
</tr>
<tr>
<td>Roberval, QC</td>
<td>117</td>
<td>May 25</td>
<td>Sept. 20</td>
</tr>
<tr>
<td>Trois-Rivières, QC</td>
<td>128</td>
<td>May 19</td>
<td>Sept. 25</td>
</tr>
<tr>
<td>Prince Albert, SK</td>
<td>88</td>
<td>June 7</td>
<td>Sept. 4</td>
</tr>
<tr>
<td>Regina, SK</td>
<td>91</td>
<td>June 1</td>
<td>Sept. 1</td>
</tr>
<tr>
<td>Yorkton, SK</td>
<td>106</td>
<td>May 26</td>
<td>Sept. 10</td>
</tr>
<tr>
<td>Watson Lake, YT</td>
<td>83</td>
<td>June 6</td>
<td>Aug. 29</td>
</tr>
<tr>
<td>Whitehorse, YT</td>
<td>72</td>
<td>June 12</td>
<td>Aug. 24</td>
</tr>
</tbody>
</table>

For more locations, go to Almanac.com/FrostDates.
GROW BETTER
WITH A HAND FROM US!

ADVICE ON:
how to test and amend your soil
seed-starting and seed-saving
watering and fertilizing
how to deal with pests and diseases
harvesting and storing

PLUS!
pages for notes and records
humorous anecdotes from fellow gardeners
tables and charts for easy reference
too much more to mention!

NOW IN ITS 3RD PRINTING!

ONLY $15.95!* (Canada, $17.85)

In the 208 beautiful pages of this new, easy-to-use, full-color handbook, you’ll find all you need to know about growing more than 30 of the most popular vegetables.

Whether you’ve never touched a trowel in your life or have been harvesting at home for decades, you’ll reap the benefits!

Get one for yourself and another for a friend!

AVAILABLE IN YOUR LOCAL BOOKSTORES;
IN THE U.S., AT ALMANAC.COM/SHOP AND AMAZON.COM;
IN CANADA, AT AMAZON.CA
INVOCATION FOR 11 Tomatoes

Ancient god of the *tomatl*, Cousin of Quetzalcoatl*: Bless these seeds that I have chosen To sow in pots while fields are frozen. Concentrate your sacred power On every sprout and leaf and flower, Let the vines through summer shoot, And load them up with shining fruit: *Sweet Million*, with its long cascades Of rubies interspersed with jades. Hearty *Striped German*, Slice it like bread; the inside Is yellow, all marbled with red. Delicious *Favorita*, resistant to disease, There’s no resisting Cherries sweet as these. *Jutland* was bred by the Danes, And its genes are designed so it goes With rye toast and sardines. *Big Beef’s* a belle With old-fashioned taste, Round in the shoulders, Generous in the waist. Fine *Brandywine*, both red and yellow, With creamy flesh so rich and mellow, Heavy beauties lobed and creased, So luscious that each fruit’s a feast. *Cherokee Purple’s* dusky pink, From Native fields, or so some think, A smoky taste, a globe oblate, And brick red sliced upon a plate. *Black Krim*, whose home’s The cold Black Sea, Dark glossy green, mahogany; When halved, its seeds like orbs appear To swim in night’s vast hemisphere. Old *Golden Queen*, discovered in 1882, “Has never been improved upon,” If what we read is true; “A faint blush on the blossom end, Extending to the stem, Like sunrise in a golden dawn,” One seedsman wrote of them. Great *Mortgage Lifter*, meaty, mild, Almost as large as a small child; As beautiful a beefsteak fruit As can be found, the absolute Tomato—or so a man named Charlie Thought, and soon so many others sought His plants he sold them From his house for profit— Until he’d lifted the mortgage off it. *Sungold!* You’ll think You’ve struck it rich, Or seized at last the Golden Snitch!* Cherries of brightest tangerine, Bursting with sugars and carotene— Their “tropical taste” is so intense That you may need to build a fence To keep the neighbors out! And yet, So thickly do the clusters set, So freely bear once they begin, You might as well just let them in. Cousin of Quetzal! Join with Plato And bring me the ideal tomato Of every cultivar I’m growing. I ask you on this day of sowing. I know you will not mind it’s snowing. I promise to do all the hoeing, And mention you when I am showing The garden off to all my friends— And here my invocation . . . ends.

—Phil Holland, Pownal, Vermont

*Quetzalcoatl (conceived of as a “plumed serpent”), the major Aztec deity of wind, air, and wisdom, derived its power from its place in connecting two worlds: the sky or heavens (represented by the feathers of the beautiful quetzal bird) and the earth (represented by coatl, the snake).

**A walnut-size golden orb with wings, the Golden Snitch was the third and smallest type of ball used in the fictional sport of Quidditch created by J. K. Rowling in the Harry Potter fantasy novel series.
The easy-care rose!

- Perfect for pollinator gardens
- Plant in any full sun or partial-shade spot
- No chemical spraying or fussy pruning required
- Non-stop blooms from early summer to late autumn

www.flowercarpet.com
OUTSCAPE
100% WATERPROOF, LIGHTWEIGHT SHOE WITH ALL-DAY COMFORT

The Original Muck Boot Co. is rooted in protection. We understand the need for versatile, 100% MUCKPROOF footwear that provides all-day comfort. So when designing a lighter-weight option, we didn’t compromise. Feature packed, the Outscape is the answer for working in the garden, walking the dog, or for those days when you can’t decide between a boot or a sneaker.

Available in multiple colorways for all genders.