GROW-YOUR-OWN FESTIVAL

Growing Instructions 2024

Provided by the UCCE Master Gardeners of Lake Tahoe

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Tomatoes

Tomato Offerings

- Sun Gold
- Red Racer
- SuperSweet 100
- Juliet F1

Tomato Soil

pH 6.2-6.8 (Tahoe/Truckee native soil) is best. Prep area by mixing in 10-10-10 fertilizer and organic matter to improve moisture-holding capacity. Plants are thirsty and hungry.

Planting Tomatoes

Tomatoes can be grown on native soils, raised beds or containers. Container growing is most successful in the Tahoe-Truckee area. Do not plant into areas where potatoes, peppers or eggplants have been grown the previous year. Plants require direct sunlight, max warmth, and night protection if too cold. Plant by a south facing wall, fence or by rocks for added warmth. Another option is to use water walls or water containers near plants so heat is radiated during cool nights. Use fabric ground covers to raise soil temp.

Small plants need to be hardened prior to planting. This should take a min. of 3-4 days w/ increased time outside. No freezing temps. Plant the tomato at least 2x as deep as the pot it comes in. Remove any leaves that will be buried and bury stems deep; this will encourage roots above the root ball. Deeper soil will be much cooler so dig holes ahead and water prior to planting. Warm water will lessen shock when planting. Liquid fertilizer can be added during this first watering if no fertilizer was used previously. Another planting method is to dig a shallow trench and lay the lower portion of the stem into the trench, cover with soil. This keeps the roots closer to the surface and warmer soil. Plants will need more frequent watering with this method.

Tomato Maintenance

Water regularly. Inconsistent watering can lead to flower or fruit drop. Water early while drinking coffee, do not water in the evening to avoid powdery mildew… but a nice lullaby is recommended. Deep watering is better and avoids getting foliage/fruit wet. Stake the plants for support, wire cages for bushy plants or for the indeterminate varieties, trellising to 6 ft; protect from cold weather.

Tomato Pests

Aphids, cutworms, flea beetles and the ever-frightening hornworms are the most common insect pests and can be controlled by hand picking and encouraging beneficial insects.

Tomato Harvest and Year End Issues

Pick tomatoes when fully ripe and enjoy. When the weather cools, pick fruit when partially ripe and ripen indoors in a sunny area. Place in a paper bag to speed ripening or cut with stems to ripen indoors in a dark area. Green tomatoes are great breaded and fried with ranch dressing. Remove and dispose of plants after a hard frost that kills plants. Frost makes fruit inedible.

Tomato Propagation

Most home gardeners purchase growing plants for their gardens. Open pollinated varieties and heirlooms can be grown from retained seeds and will be true to parentage.

Tomato Varieties

- DETERMINATE (Bush): produces fruit near same time over 1-2 weeks
- INDETERMINATE (Vine): continues to produce until killed by frost; prune suckers; stake

Tomato Information provided by Sue Tanzi, Lake Tahoe Master Gardener

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🫑 Peppers 🫑

Pepper Offerings

- TBD (dependant on germination success)

Soil

Pepper plants grow best in warm well drained soil. Ideal soil Ph is 6.0 to 6.8 range. A soil enriched with plenty of compost and organic material will require less fertilizer. Fertilizers of a 1-2-2 ratio are often used for growing peppers.

Conditions

Peppers love the warm temperatures. They need 6-8 hrs of full sun per day. Planting should be delayed until the danger of frost has passed. They are sensitive to cold. Ideal temps are 70-80 degrees during the day and around 60 degrees at night. To speed up the warming process, use black or dark colored containers to plant in. Peppers do very well in containers. At least a 2 gallon pot per plant, 5 is better. 2 plants in a 5 gallon is ok too. This also gives you the option of moving your plant to follow the sun if needed. Prepare a hole that is twice as wide as the seedling root ball and about 1” deeper so a portion of the stem is below soil level. If planting in-ground, space plants 18-24” apart or more.

Watering

Water pepper plants daily. A shortage of water at bloom-time can cause blossom drop! Water the soil and transplant container thoroughly before transplanting.

Care

After the plants are well established, apply approximately an inch of organic mulch to conserve soil moisture, prevent soil compaction and help suppress weeds. Once fruits have begun to set, an additional side dressing of fertilizer will help promote larger fruit. Use a 12-12-12 analysis fertilizer or other high nitrogen fertilizer like fish emulsion.

Harvesting

Bell peppers are usually picked green when they are full size and firm. Use clippers and take care not to break the branches as they are often brittle. You may get up to 6-8 fruits per plant! Peppers stay fresh in the fridge for up to 2 weeks and also freeze well.
*****AVOID TOUCHING EYES AFTER HARVEST OR HANDLING!!!*****

Peppers Information provided by Sue Tanzi, Lake Tahoe Master Gardener

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🌱Leafy Greens🌱

Leafy Greens Offerings

- Redbor Kale
- Black Jack Kale
- Roquette Arugula
- Outredgeous Romaine lettuce

Growing Kale and Collard Greens in the Ground

- Change planting location, no replanting for 2-4 years • Full sun spring/fall, shade in summer
- Make sure seedling and planting location are moist and fertile before transplanting
- Gently massage roots of kale before planting but gentle root care for the others
- Amend soil with compost or organic nitrogen-rich fertilizer and do not compact soil surface when planting
- Press in and around plug to increase soil surface area, loosely fill rest of the area
- ~12 inches apart in all directions

- Bury to apex or axis point
- Initial water regularly for 3-4 days straight
- Subsequent watering is temperature dependent (3-4 days) keep soil moist
- Recommend harvest from the outer leaves (all) leaving inner leaves or Cut-and-come-again - consistently to reduce bolting
- Thick mulch to prevent evaporation, rec. diluted fish emulsion every 3-4 weeks
- Remove all yellowed/damaged leaves

Growing Lettuce, Arugula, & Spinach in the Ground

- Prefer sunny locations
- Leaf harvest: plant 3” apart
- Spacing for harvesting leaves:
    - Lettuce: 4”-5” apart (if harvesting head double spacing, but don’t recommend for in the ground at Tahoe)
    - Spinach: plant 10”-12” apart
    - Arugula: plant 12”-18” apart
- Plant deep enough so seedling is upright
- Make sure seedling and planting location are moist before transplanting
- Initially, light, slow watering every day for 3-4 days straight
- Subsequent low pressure soaker hose or drip irrigation for deep watering every (3-4 days) and to prevent mildew
- Check soil moisture a few inches below surface
- Thick mulch to prevent evaporation, rec. diluted fish emulsion every 3-4 weeks
- Recommendations for harvest
    - Harvest leaves in the AM leaving an inch
    - Cut-and-come-again harvest in the AM leaving 2-4 inches
    - If it’s getting really hot or your plant is very full, harvesting will help prevent bolting

Growing Leafy Greens in pots and planters

- Kale/Collard
    - Kale = 5+ gallon (10” x 12”)
    - Larger containers, space the plants 12 inches apart
    - Provide proper drainage make sure soil is not compact
    - Thick mulch to prevent evaporation
- Lettuce, Arugula, & Spinach (harvest leaves, cut and come again)
    - Shallow root system doesn’t need deep soil
    - Wide and shallow (6+ inches deep) container, consider up to 12” deep for romaine
    - Shallow containers will heat up quick and evaporate faster, you will need to be more watering, thick mulch recommended
    - Adequate drainage holes in the bottom
    - Recommend diluted fish emulsion application ~every 3-4 weeks or amend soil initially with slow-release fertilizer high in nitrogen

- More fragile leafy greens like lettuce, arugula, and spinach can burn in the strong Tahoe sun. It's nice to plant them in containers because you can give the plants full sun in the morning and move them into the shade when it might get too hot for the plants. You can also move them inside if it drops to freezing temperatures at night.
- Collards are also sensitive to cold and if it's in a pot, for freezing temperatures if it's in a pot that is too much to stay inside, be sure to put a hot water bottle next to it and cover it in a cloth/plastic bag.

Pest Management

- For aphids and other bugs, try various sprays that would need to be reapplied weekly
    - Neem oil (follow directions on bottle)
    - Dr. Bronner's peppermint (1 tsp + 1 quart water)
    - Spicy spray (steep spicy peppers, garlic, and crushed red pepper and filter mixture) this one is good for the rodents or if you have dogs that like to graze.
- Cabbage worms remove physically and place in soapy water
- Physical barriers (or dog patrol) for rodents, wrapping plants in netting for aphids and cabbage worms
- "Prevention is better than the Cure," get the aphids before they get out of control so be diligent with plant observations and physically remove aphids the minute they appear

Leafy Greens Information provided by Alison Toy, Lake Tahoe Master Gardener

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🥔Potatoes🥔

Potato Offerings

- Red LaSoda (red)
- Sifra
- Constance
- Bellanita (fingerling)

Potato Seed Preparation

We have picked this year's seed potatoes from previous years best results. Our seed potatoes are ready to plant when you receive them. They will tolerate light frost if covered or mulched. If your seed potatoes do not have evident eyes, place them where they have a minimum temperature of 75 degrees for 2-3 days.

Small whole with eyes all good. Large seed potatoes can be cut if they include at least 2 "eyes"

each. If cut, allow 12-24 hours to dry or become callused.

Growing Potatoes in Containers

- Fabric or plastic buckets
- Follow the sun….

Potato Soil in Containers

Fill container with 4-6” of native soil mixed with added well-draining loose soil and decomposed material. That includes local pine needles, compost, and wood chips. Save a stash of pine needles for unexpected frost and for mulch later in the growing cycle.

Fertilizing Potatoes in Containers

Fertilize soil bed at planting and every few weeks. DIY fertilizer: banana peel and water (jar, peels, water, 3 days, water plants)

Planting Potato Seeds in Containers

2-3 seed potatoes (Same variety) per 5-gallon bag/container, water deeply & cover with 4” mixed soil. Include plant labels so you can identify how the varieties look and produce.

Potato Care in Containers

When green sprouts & leaves are 6-8”, add soil over/around, but do not cover completely unless frost is expected and uncover as soon as possible. Leaves need sun & air for growth. Hill the bottom of the stems about every 2-3 weeks until flowering. It is fine to add soil if the plant has some green above ground. If you see spuds peeking out at the surface, add soil or mulch to cover. Fingerlings will do this.

Watering Potatoes in Containers

Evenly water until the leaves die/turn yellow, then stop watering for at least a week. Containers will require a bit more water overall than beds. Seed potatoes have their own internal water for a bit. But no soggy soil ever. Heavy water at planting. Then Even watering. Taper watering. Stop watering.

Harvesting Potatoes from Containers

In a container, dump it over and uncover the treasure. Save your (washed) container or bag for next year.

Growing Potatoes in a Raised Bed or In-Ground Garden

Planting Potatoes in a Raised Bed or Garden

Soil must be at min 45 degrees, loose, slightly acidic & well drained. Amend if necessary, to have soil pH between 5-6 and 5-7. Plant each seed potato 10” apart (fingerlings can be closer) & 4-6” deep. Remember potatoes grow horizontally & up as you “hill” from the mother (seed) potato, so no matter how deep you plant, remember you will be adding soil as you go.

Care & Water of Potatoes in a Raised Bed or Garden

Heavy water at planting – Even watering – Taper watering – Stop watering.

Harvesting Potatoes from a Raised Bed or Garden

When plants are spent or dying-looking, gently use a spade or kid hands (fun!) to carefully dig around 10-12”. You can harvest the smaller (“new”) potatoes near the surface & leave the deeper spuds to keep growing or harvest one plant at a time, no need to pull up all the plants at the same time.

Storing Potatoes

Allow to dry for a day, brush soil off and store in a cool, dry ventilated place (not fridge unless you let them mature in the soil).

Potato Information provided by Melissa Guthrie, Lake Tahoe Master Gardener

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Pea Offerings & Growing Tips

- Oregon Sugar II
    - Dr. James Baggett of Oregon State University developed this pea type in the 1980s.
    - Open pollinated pea
    - About 65 days to maturity
    - Flowers, tendrils and young shoots edible
    - Pods are up to 4” long
    - Can be planted 2-3 weeks prior to last frost
    - Plant in rows or mounds
    - Seeds planted 1-2” deep

    - Seed spacing 2-4” apart
    - Space rows 18” apart
    - Replant every 2-3 weeks for larger crop
    - 36-42” plants are helped with a short trellis
- Sugar Ann Snap
    - Open pollinated pea
    - About 52 days to maturity
    - Flowers, tendrils and young shoots edible
    - Can be planted 2-3 weeks prior to last frost
    - Plant in rows or mounds
    - Plant seeds 1-2” deep
    - Seed spacing 2-4” apart
    - Space rows 18” apart
    - Replant every 2-3 weeks for larger crop
    - Will benefit from trellising.

Nitrogen Fixation in Peas

Atmospheric nitrogen (N2) is not in a usable form for most plants. For legumes like beans and peas a symbiotic relationship exists with a type of nitrogen fixing bacteria (Rhizobia spp.). The bacteria “infects” the root system obtaining essential nutrition, while providing the plant with a usable form of nitrogen - nitrates (NO3). The location of the “infection” are the nodules that form in the roots of the plants. Seeds can be purchased that are coated with the bacteria as an inoculate. The relationship is complex as the plant moves nutrients to seed production

Types of Peas

- **Garden peas** – (Garden, English, Field) A pea that is shelled and may be dried (Field peas) before eating
- **Snow Peas** – (Chinese pea pods) A pea and pod eaten prior to seed maturity
- **Sugar Snap Peas** – Are a cross between Garden and Snow peas usually eaten with pod.

History & Botany of Peas

- Thought to be native to the Mediterranean area, this legume, Pisum sativum (L) has been a staple food for thousands of years - including Neanderthals. Well maybe.
- The garden pea is fully domesticated with no known wild populations. Three subspecies are recognized, each being a domesticated variation of the garden pea.
- Botanically the pea is a fruit. The plant itself is an annual having perfect flowers and can be self fertile. Stems are hollow. Tendrils at leaf nodes help support the plant.
- The common Sweet Pea, Lathyrus Odoratus, is poisonous causing paralysis, difficulty breathing and convulsions

Planting & Harvesting Peas

- Select planting location with well drained soils. If poor drainage, plant on elevated rows (or mounds), or amend soil with sand and gravel. Soil pH of 5.5-7 is optimum.
- Initial planting can be 2-3 weeks before the last frost.
- If variety will benefit from trellising place trellis prior to planting.
- Plant seeds one inch deep. Consider soaking seeds overnight prior to planting.
- Plant seeds 4 inches apart. Water if soil is dry.
- Replant every 2-3 weeks to extend the season.
- When plants reach the top of trellis top off leading shoot.
- Harvest every 2-3 days for maximum production.
- In addition to the pod, you can eat the tender leaves and tendrils of pea plants either raw or sauteed
- Peas are a cool weather plant that can tolerate short periods of freezing temperatures.
- Cut plant at base once production tapers off. Leave roots in soil.
- Rotate planting location each season.

Saving Pea Seeds

- Leave pod on the vine, until pod turns brown
- Once pod is brown, dry and hard remove from vine
- You should hear seeds rattle if pod shaken
- Break open the pod and remove seeds.
- Place in paper bag label and store for up to 2 years

Peas Information provided by Mary Wall, Lake Tahoe Master Gardener

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Bean Offerings

- Blue Lake Bush Bean
- Gold Rush Bush
- Celine Bean

History & Botany of Beans

The common bean (Phaseolus spp.) was first cultivated in both Central and South America around 6000 years ago. Many varieties exist and regional varieties have been domesticated, hybridized and exchanged through trade. The introduction to Europe was with Columbus.

Botanically the Bean is a fruit. The plant itself is an annual having perfect flowers and can be self-fertile. Stems are solid. Beans do not have tendrils, rather the vine itself will spiral up a support.

Types of Beans

- Snap beans – Beans and pods eaten
- Filet or French Green Bean – more slender
- Shelled beans – Only the bean is eaten
- Dry Beans – Beans typically dried prior to rehydrating and eaten (pinto)

Bean Growth Classification

- Pole – Requiring support, Longer production period
- Bush – Not requiring support, Shorter production period
- Semi-bush - Intermediate

Planting & Harvesting Beans

1. Select planting location with well drained soils. If poor drainage plant on elevated rows (or mounds), or amend soil with sand and gravel. Soil pH of 5.5-7 is optimum.
2. Initial planting after last estimated frost.
3. If variety will benefit from trellising place trellis prior to planting.
4. Plant seeds one inch deep. Do not soak beans prior to planting.
5. Plant seeds 4 inches apart. Water in if soil is dry.
6. When plants reach top of trellis top off leading shoot.
7. Harvest every 2-3 days for maximum production.
8. Replant every 2-3 weeks for extending season.
9. Cut plant at base once production tappers off. Leave roots in soil*.
10. Rotate planting location each season

Bean Information provided by Dave Long, Lake Tahoe Master Gardener

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🎃Squash & Pumpkins🎃

Squash Offerings

- Superpik summer squash
- Butterbush F1
- Emerald Delight Zucchini
- Small Sugar Pumpkin

History of Squash

Did you know that a pumpkin is a type of squash? The squashes, pumpkins and cucumbers are native to North and South America. The Cucurbita spp. are assumed to have been first domesticated about 10,000 BCE. Based on archeological reports it appears that first utilization was for seeds, and use of gourds for material storage. The selection of squash flesh as a food seems to have taken about 1000 years. (Corn for example was domesticated only about 4000 years later.)

Growing Squash

- Squash have separate male and female flowers (monoecious).
- Flowers are edible
- Companion plantings include corn, lettuce, onions and radishes
- Avoid planting with potatoes, tomatoes and eggplants
- Many varieties have tendrils that help the plant climb and hold fruit off ground
- Squash can be grown in containers (5 gallon minimum for 2 plants – same variety)
- Squash vines can be grown onto trellis or support
- Squash plants need space (Either horizontal or vertical)
- Squash are heavy feeders fertilize monthly
- Do not let soil dry out
- Squash need POLLINATORS to produce fruit
- Harvesting most squash early is not a problem
- Harvest when stems harden and fruit are no longer increasing in size
- Plant different varieties of squash at least 20 feet apart to avoid cross pollination
- If unable to distance separate different varieties, strongly consider hand pollination
- Early season, cool temperatures or irregular watering favors male flower development over female flowers
- Few pollinators are found early in the season – consider hand pollination

Planting Squash Seeds

- Squash do best in fertile, sandy soils pH 6.0 - 7.0
- Squash are very cold sensitive and seeds may not germinate with soil temperatures below 60°F
- Consider hill planting to increase soil temperatures

- Consider using ground covers or other strategies to increase soil temperatures
- Place seed 1 inch deep. Place seed in soil on its edge – not flat
- Germination 8-12 days typically – dependent on soil temperature

Transplanting Squash

- Harden off plants before placing in garden
- Squash are root sensitive to transplanting – be careful in handling plants
- Consider burying portions of vines to encourage secondary rooting
- Squash are heavy feeders apply manure/compost or fertilizers monthly
- Do not let soil dry out! Try to keep the leaves dry.

Squash Pollination

- Squash can be hand pollinated:
    - Use an artist's paint brush, small fine comb, or tooth brush. Wipe across several male anthers, then across the female stigma. Best to do this early morning. Flowers close in early afternoon
    - Clip off male flower. Remove petals. Then swipe anthers across the female stigma. Best to do this early morning. Flowers close in early afternoon.
- Or wait for help
    - Bumble bees, beetles, bugs and butterflies can pollinate squash plants.
    - Squash bees in particular are important.

Squash Pests

- Squash vine borer
- Squash bug
- Cucumber beetle
- Squash beetle
- Aphids

Squash Diseases

- Downy mildew & Powdery mildew
    - Mildews can be traced to watering procedures and air flow around leaves
- Blossom end rot
    - Blossom end rot is related to soil calcium deficiency (rare). Similar appearance is from flower not being pollinated

Squash Information provided by Dave Long, Lake Tahoe Master Gardener

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🧅 Onions/Leeks 🧅

Onions & Leeks Offerings

- Red Candy Apple
- Red Torpedo
- Cippolini
- Lancelot Leeks

About Onions

- Onions grown in the Tahoe/Truckee area do not typically achieve the size found in the markets.
- Onions are defined as short day, long day and intermediate day onions. Intermediate day onions may do best in our area. Tahoe is on the demarcation line for the limits of long-day and short-day onions.

Starting Onions, Shallots and Scallions Indoors

- Start seeds indoors. Up to 70 days prior to transplanting.
- Place seeds in a light soil mixture, sprinkle a little soil over the seeds.
- Once sprouted (7-14 days), do not over water, and give plenty of light (8hr minimal).
- The larger the seedlings the easier it is to transplant outdoors.
- You can trim roots prior to transplanting outdoors, and store for a couple weeks prior to transplanting (do not water once pulled from soil).
- Onion slips (seedlings) can be planted up to 3 weeks prior to the last expected frost.

Planting, Growing, & Harvesting Onions & Shallots

- You can plant seedlings 2-3 weeks before last frost, as long as soil is workable
- Plant seedlings 1-2 in depth.
- Space 4-6 inches apart
- Plant in area that gets as much sun as possible
- Consider planting in raised rows to increase soil temperatures around plants.
- Onions like loose mineralized soils that easily drain water.
- Onions, leeks and shallots are heavy feeders. Fertilize 2-3 weeks after planting and every other
- week thereafter. Stop fertilizing when bulbs start to show at soil surface.
- The initial fertilizer applications (2-3) should have significantly more phosphorus than nitrogen
- and potassium – to encourage root growth.
- Thereafter, high nitrogen fertilizers should be used to encourage leaf production and growth.
- Try to maintain even soil moisture, avoid over watering or letting the soil dry out and leaves wilt.

- A cold snap during the growing season (near freezing for more than 24 hours can cause the
- onions to bolt (set flowers). If onions bolt, pull plants up and use. Bulbing will have stopped and
- plant energy will have been directed towards flow and seed production.

Harvesting Onions

- Harvest onions that bolt as soon as possible.
- Late summer or early fall the leaves will start to turn brown and droop or fall over.
- Stop watering and leave onions in ground for a few days
- Pull onions and let dry for 2-4 days in a cool dark area. Trim roots but do not remove stems.
- Cut stem from bulb once the neck and outer skin is dry.

Harvesting Shallots

- Harvest shallots if they bolt
- Shallots are a type of clumping onion and can be pulled and used during the growing season.
- Pull shallots and let dry for 2-4 days in a cool dark area. Do not remove stems or roots.
- Cut roots and stem from the bulb once the neck and outer skin is dry.
- Unused shallots can be left in the ground to overwinter, or pulled, dried and stored for planting the following year.
- If left in the ground to overwinter, cut leaves at ground surface when dry or after a hard freeze.

Planting, Growing, & Harvesting Leeks

- Prepare soil as with onions.
- Plant leeks about 4-6 inches deep, so only the tops of the leaves show above the soil surface.
- Mound dirt 3-4 inches around the plant as it grows. This helps “blanch” the lower stem keeping it white.
- Water and fertilize as you would onions.
- Harvest when needed. You can leave leeks in ground until late fall
- Once pulled, trim roots and upper portion of leaves.
- Store in a damp paper towel in the refrigerator for up to a week.
- Leeks can be chopped and frozen in an airtight container for about 6 months.

Onions/Leeks Information provided by Dave Long, Lake Tahoe Master Gardener

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Root Crop Offerings

- Yaya carrot
- Purple Star carrot
- Donato radish
- Bravo radish
- Touchstone gold beet
- Red Ace beet
- Albion parsnip

About Carrots, Parsnips, & Radishes

Carrots are native to Eurasia, with the typical orange variety coming from east Asia. Parsnips are native to the eastern Mediterranean and north to the Caucus Mountains. Beets also are from the Mediterranean region usually along the sandy coast. Lastly radishes are native to China.

Planting, Growing, & Harvesting Root Crops

- Root vegetables do best when planted by seed in loose friable, well drained soils. Heavy or clay soils will cause stunted or crooked root development. Transplanting carrots and parsnips can also lead to crooked root development.
- Plant soon after the last expected frost.
- Plant seeds no more than ½ inch deep.
- Carrots and Parsnips may take up to 3 weeks to germinate depending on soil temperatures.
- Fertilize lightly using an all-purpose fertilizer (6-6-6) as a side dressing anytime the second set of leaves appear.
- Root crops will often bolt, sending up flower stalks in the first year, not the ideal situation for gardeners hoping for a good crop. Plants often bolt if there are a few consecutive days of near freezing temperatures. Once plants start to bolt the root generally will not get any bigger, and the foliage can become bitter.
- Root vegetables can be harvested as baby vegetables or as fully mature roots.
- Once mature, pull plants when needed. In ground storage is a good option for gardeners.
- To avoid breaking or damaging the roots at harvest, avoid pulling the plants up without first loosening the soil with a spade or trowel.
- All root vegetables are susceptible to gophers, voles, mice and ground squirrels. Rabbits, deer, bears and raccoons will munch the foliage, as will many chewing insects like grasshoppers.
- The leaves can also be used in salads or cooking, though not parsnip leaves. Parsnip leaves should not be consumed as they contain furanocoumarins that can cause irritation to the skin and swelling of lips, mouth and tongue. It is noted that there are a few recipes that mention using parsnip leaves.

Root Crop Information provided by Dave Long, Lake Tahoe Master Gardener

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🌱Microgreens🌱

Terminology and Definitions of Microgreens

- Microgreens
    - Plants grown for fresh consumption.
    - Usually grown in a soil medium.
    - Harvested prior to formation of second set of true leaves.
    - Leaves and stems harvested and consumed.
- Spouts
    - Plants grown for fresh consumption.
    - Plants grown without soil media.
    - Typically harvested prior to true leaves being formed.
    - Roots, stems and cotyledons harvested and consumed.
- Baby vegetables/greens
    - Plants grown for fresh consumption
    - Plants grown in soil or hydroponically.
    - Harvested anytime after second set of leaves are set.
    - Leaves and sometimes stems are harvested and consumed.

About Microgreens

Chef Craig Hartman invented and coined the term “Microgreens” in 1990 when his friend Michael Clark grew and delivered what he believed were baby greens. Pam Parseghian, a food writer, published the story about microgreens, which got shared with all the restaurant people in America in 1992.

The nutritional values of microgreens is dependent on the plant variety being grown.
Often the nutrient value is greater in microgreens (on a weight to weight basis) than the mature plant.

Plant families common to microgreen cultivation

- Brassicaceae family: Cauliflower, broccoli, cabbage, watercress, radish, kale mustard and arugula
- Asteraceae family: Lettuce, endive, chicory and radicchio
- Apiaceae family: Dill, carrot, fennel and celery
- Amaryllidaceae family: Garlic, onion, leek, and chives
- Amaranthaceae family: Amaranth, quinoa swiss chard, beet and spinach
- Cucurbitaceae family: Melon, cucumber and squash

Growing Microgreens

1. Select pot or container (pot, milk or juice container, plastic container from vegetables).
2. Place at least 1 inch soil or growing media (soil, shredded paper, sand, old coffee grounds) in container.
3. Water so grow media is thoroughly wet, but no free water .
4. Sow seeds uniformly over surface.
5. Mist seeds with water.
6. Cover the container for 48 hours, checking regularly to make sure soil or media is not dry.
7. Mist seeds 2 or 3 times a day.
8. After seeds geminate (2-3 days) take cover off container.
9. Continue to mist the plants 2or 3 times a day. Add more water if soil is drying out.
10. Harvest when plants are 1 or 2 inches tall. Harvest by cutting plants. Do not harvest roots or soil.
11. Throw out soil or growing media after you have harvested plants, or place soil into your garden.

Suggested Microgreen Seed Sources

High Mowing seeds. www.highmowingseeds.com
Johnny's Seeds. www.johnnyseeds.com
True Leaf Market. www.trueleafmarket.com

Microgreen Information provided by Dave Long, Lake Tahoe Master Gardener

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Edible Flowers

Edible flowers are unique ingredients that can add color, flavor, nutrition, and beauty to all kinds of foods, from salads to desserts to fancy cocktails. Toss them in salads. Use them to make tea. Freeze in ice cubes. Flavor vinegars and syrups. Use to scent and flavor sugar or salt. They make colorful, pretty garnishes and decorations, too.

Edible Flower Offerings & Quick Tips

- Violia
- Nasturtium - Prefers full sun. Can trellis plant
- Calendula
- Super Pic Summer Squash - Prefers full sun and evenly moist soil. Transplant into ground or larger pot after the danger of frost has passed.

Types of Edible Flowers

- **Vegetable, fruit, and herb flowers** - These flowers often taste similar to the parent herb, fruit or vegetable, only milder. Squash blossoms are delicious when stuffed and fried. Snap pea flowers are pretty and delicious. The flowers of herbs such as basil, sage, oregano, cilantro, chives, lemon balm, dill, lemon balm, anise hyssop, fennel flowers, or lavender are especially flavorful and colorful. Fruit tree blossoms can complement recipes with fruit in them. Peach, pear, strawberry, and apple blossoms are all fruit-flavored and pretty.
- **Mild-tasting flowers** – Some common flowers that are beautiful and subtle in flavor are violets, pansies, daisies, lilacs, and bachelor buttons (also known as cornflower). Borage has distinct purple/blue flowers and mild flavor, making it ideal for decorating desserts or cocktails.
- **Flavorful, strong-tasting flowers** – Examples of flowers with bright colors and bold flavors are elderflowers, marigolds, roses, dandelions, chrysanthemums, chamomile, daylilies, and chicory blossoms. Nasturtiums are spicy/peppery in flavor, and calendulas have bright petals and a resin flavor.

Caution with Edible Flowers

There are hundreds of thousands of types of flowering plants and many are edible. But, it is very important to remember that some are NOT edible and can be poisonous. Be sure to make a positive identification of each variety before using. Consult a professional resource such as a guidebook or website if you are not sure of a flower's identity before you use it as an ingredient. Better yet, grow your own known varieties or purchase flowers clearly identified as edible rather than looking for flowers in the wild. Avoid flowers that may have been sprayed with pesticides or other chemicals. Grow your own organic flowers, or harvest them from a location where no chemicals are used. All flowers, organic or not, should be shaken and washed in cold water prior to use, as they may be homes to insects.

Harvest and Preparation of Edible Flowers

Pick edible flowers in the morning, when they have the highest water content. Keep them on some dampened paper towel inside a sealed container in the refrigerator for as long as a week. Wilted flowers can be revived by floating them in some ice water for a few minutes. Prepare them for eating just before serving in order to prevent further wilting.

Remove the stamens and styles from most flowers before eating. Pollen can cause allergic reactions when eaten by some people, and the pollen may overwhelm the otherwise delicate flavor of the petals. Some exceptions that can be enjoyed whole include the violas, (such as Johnny-Jump-Ups and pansies), as well as flowers from scarlet runner beans, honeysuckle, and clover.

Additional Edible Flower Resources

List of Edible Flowers (West Coast Seeds)
Edible Flowers (The Pioneer Woman)

[Five Creative Ways to Use Edible Flowers for Baking (King Arthur Baking Company)]
[Edible Flowers (The Herbal Academy)]

Edible Flowers information provided by Cindy Wise, Lake Tahoe Master Gardener

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🍴 Food Safety Tips for Edible Home Gardens 🍴

- Any surface, container or tool that comes in contact with fresh produce could be a source or transfer point of pathogens. Well-planned food handling practices in the garden and home can reduce the likelihood of cross contamination.
- Be aware of the potential for garden gloves, outer garments, and shoes to transfer contamination from one place (such as a manure pile or compost bin) to your edible garden, harvest equipment, or kitchen.
- Before use, clean and sanitize all surfaces that will contact food, including harvest equipment (bins, totes, gloves, boxes, buckets, bushel baskets). Consider maintaining separate pruners that are used only for your edible plants.
- Surfaces can be cleaned with hot soapy water and bleach.
- Bleach is an inexpensive and widely available sanitizer: make a solution with 1 teaspoon unscented liquid bleach per quart (4 cups) of water. Or flood the surface with the bleach solution and allow it to stand for several minutes, then rinse thoroughly with clean water and dry with a paper towel or clean cloth.

Excerpts from Food Safety Tips for Your edible Home Garden by L.J. Harris, PhD and T.V. Suslow, PhD, University of California, UC Davis.
Resources: http://ucfoodsafety.ucdavis.edu/Consumers/

Garden-Food Safety information provided by Annie Christy, Lake Tahoe Master Gardener

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💦Irrigation - Converting Lawn Sprinklers to Drip Irrigation💦

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Irrigation information provided by Jennifer Cressy, Lake Tahoe Master Gardener

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