

Leeks

by Joyce Gemmell

Planting Dates (San Diego County coastal and inland)

January - February: Early varieties (70-90 days to maturity)

August: Late varieties (100 or more days to maturity)

The leek (*Allium ampeloprasum*) is grouped botanically with onions, garlic and other allium species. It is a biennial cool season plant grown for its thick, white (blanched) stem which has a mild almost sweet onion flavor. Other closely related vegetables include elephant garlic which produces very large bulbs with a mild garlic flavor and kurrat or Egyptian leek grown primarily for its leafy tops which are eaten as a salad green.

The leek stem or stalk which grows 6-8 inches long and up to 2 inches thick is not a true stem but rather a cylindrical bundle of tender leaf sheaths. Soil is hilled (pulled up) around the base of leeks to exclude light which blanches the green tissue white and gives it a mild flavor. The leek's flat, silvery green foliage is edible but has a strong flavor and is seldom used.

Leeks grow best during cool weather (60-65 degrees F. average). Many varieties are hardy when mature and hold well in the garden during winter. The length of time from planting to maturity can range from 70-130 days or more depending on variety. Early season varieties (70-90 days) planted in January or February can mature before hot summer weather arrives in coastal and inland areas of San Diego County. Late season varieties (100 or more days) can be planted in August for late fall and winter harvest.

Exposure to cold temperatures when plants are large enough causes leeks to form a seed stalk. This usually occurs in spring; however, bolting (the premature flowering of plants before they reach mature size) is a common problem when leeks are planted later in fall. Late planting results in plants that are small entering winter which then grow slowly due to cold temperatures and bolt in spring before reaching mature size. Planting earlier (in August) allows enough time for leeks to mature before cold winter temperatures arrive.

Leeks should be planted in a sunny location. They can tolerate a little shade but grow best where they receive full sun all day. Leeks prefer loose, well-drained soil amended with compost. If soil drainage is poor plant leeks in a raised bed 6-12 inches above the native soil. It's best to plant leeks where other alliums have not been grown recently or at all since they are susceptible to the same soil borne diseases and pests.

SOIL PREPARATION

Prepare a planting area by first digging the soil 10-12 inches deep. Break clods into small pieces and remove rocks, roots and other debris. Evenly broadcast a general purpose pre-plant (starter) fertilizer

over the soil and apply a 1-3 inch thick layer of composted organic matter. Thoroughly mix the fertilizer and compost into the soil so it has a uniform consistency, then level the surface with a rake.

Leeks can be grown with a chemical or organic fertilizer or a combination of both types. If a chemical fertilizer is used mix it into the soil just before planting. For every 100 square feet of garden area, you can apply one pound (2 cups) of ammonium phosphate (16-20-0) fertilizer or 2 pounds (4 cups) of 5-10-5 or similar fertilizer. Slow release chemical fertilizers that feed plants for 2-4 months can also be used.

If organic fertilizer is used, mix it into the soil several weeks before planting so it will begin to break down and release nutrients before the crop is planted. If animal manure is used, for every 100 square feet of garden area, apply 20-25 pounds of dry composted poultry manure or about 60 pounds of dry composted steer or dairy manure. Mix the manure into the soil 4-6 weeks before planting and irrigate several times to leach out harmful salts.

PLANTING

Leeks can be grown in a garden by planting seed or young plants. Some retail nurseries sell seed packets or transplants but the selection is usually limited. A wider selection of varieties can be purchased as seed online from mail order companies. Some also sell transplants; however, they may not be available when you want to plant them in the San Diego area. It's easy and usually best to buy seed and grow your own transplants. Always start with fresh leek seed since its viability rapidly deteriorates when stored a year or more. Putting seed in an airtight jar and storing it in a refrigerator will help preserve its viability. Putting fresh seed in a freezer for 1 or 2 days before planting may help improve germination.

Seed can be sown directly in a garden where plants will grow but this uses valuable space for a longer period of time. To save space, grow transplants by planting seed in a nursery row or in a container. Sow seed about 6-8 weeks before plants will be set out in the garden.

GROWING TRANSPLANTS IN A CONTAINER

Fill a nursery flat or other container with good quality potting soil or a seed starter mix. Water well to moisten and settle the soil. Sow seed about ½ inch apart in rows or broadcast seed lightly over the surface. Cover the seed with ¼ inch fine potting soil and tamp the surface gently so the soil will be in good contact with the seed.

Carefully irrigate after planting to thoroughly moisten the soil. Water lightly to keep the soil moist or cover the container with a plastic bag to retain moisture. Place the container indoors or outside in a shady, protected area until sprouts appear. Leek seed will germinate in 7-10 days when the soil temperature is about 70 degrees F. At 50 degrees F. the seed will still germinate but much slower. When seedlings begin to emerge move the container to a bright, sunny location. Water as needed to keep the soil moist and feed seedlings with a dilute fertilizer. Remove crowded seedlings early so those which remain are spaced ½ inch apart. Seedlings are ready to transplant when they are 4-6 inches tall and the thickness of the stem is between the size of spaghetti and a pencil.

GROWING TRANSPLANTS IN A NURSERY ROW

Sowing seed in a nursery row in prepared garden soil can produce transplants. Sow seed lightly in a row and cover with ¼ inch of fine soil. Gently firm the surface soil and water carefully to wet the soil about 6 inches deep. Water lightly as needed to keep the soil moist but not soggy until seeds sprout. Thin seedlings early, spacing them ½” apart to prevent stunting. Feed with a dilute fertilizer when seedlings are about 2 inches tall.

PLANTING TRANSPLANTS OR SEED IN THE GARDEN

In home gardens leeks are usually planted in a furrow or trench 4-6 inches deep and wide in prepared soil. Space trenches 18-24 inches apart and place excavated soil next to each trench so it can be pulled into the trench later as plants grow.

When you are ready to plant carefully dig and separate transplants. The roots and tops can be trimmed a little if needed. Use a trowel or dibble to make a deep narrow hole in moist soil at the bottom of the trench. Bury the transplant deep by inserting it into the hole to the depth where the leaves begin to separate from each other. Firm soil around each transplant and water thoroughly after planting to wet the soil 6 inches deep.

If desired, leek seed can be sown directly in the bottom of a planting trench. Make a shallow furrow in the bottom of the trench and sow seed lightly about ¼” deep and cover with fine soil. Irrigate carefully to wet the soil 6 inches deep. Water as needed to keep the soil moist.

BLANCHING LEEKS

To blanch the base of leek stems white, soil must be hilled (pulled) around plants gradually as they grow to exclude light. Young plants may rot if they are buried too deep. If leeks are planted in a trench pull a little soil into the trench every couple of weeks as the plants grow. When the trench is filled, hill more soil around the plants so 6-8 inches of the stem will be buried when plants are mature. Burying as much of the stem as possible will give you more of the white, blanched portion at harvest. Some gardeners put a short cardboard tube (paper towel or toilet paper) over young plants to keep soil out of the developing stem.

CARE

Leeks have a small root system that does not compete well with weeds. Remove weeds as soon as they appear so the leek’s growth will not be stunted and thin young seedlings early so those which remain will have enough space to grow. Space seedlings about an inch apart and thin plants as they grow so mature plants will be spaced 4-6 inches apart.

Leek roots grow near the base of plants. Apply water close to plants and irrigate often enough to keep the top 6 inches of soil moist but not soggy. Never let the soil dry out completely.

Leeks need good soil fertility for vigorous growth. Nitrogen is usually the only nutrient which must be applied during the growing season if a complete fertilizer was mixed in prior to planting. Feed leeks with a fertilizer containing nitrogen every 4-6 weeks when plants are actively growing. If ammonium sulfate (21-0-0) fertilizer is used, apply 1 ounce (about 1/8th cup or 2 Tablespoons) for 6 feet of row or 1/4th pound (about ½ cup) for 25 feet of row. Scatter the fertilizer evenly along each side of the row, a few inches from the plants, then water well to dissolve the fertilizer and carry it into the soil.

Leeks can be eaten at any stage of growth. They are usually harvested when the stem is an inch or more in diameter and 3 inches or more of the base has been blanched white. In mild winter areas of San Diego County, leeks planted in August can be left in the ground during winter and harvested when needed. To harvest leeks insert a garden fork or spade vertically into the soil a few inches from a plant and pull back on the handle to loosen soil around the roots. Grasp the base of the leek stem and gently twist or pull it from the soil. If you try to pull out a plant without loosening the soil the stem may break. Leeks that begin to produce a flower stalk will not grow larger and should be harvested for use as soon as possible.

Leeks are susceptible to damage by the same pests and diseases as onions. The most common pests are onion and flower thrips. They are very tiny, slender insects which are best seen with a hand lens. Thrips thrive in hot, dry conditions. They feed under leaf folds by rasping the tissue and sucking out plant juices. They scar the tissue and turn it a silvery grey color. The organic insecticide, Spinosad, can be used to help control thrips.

Two fungal diseases, downy mildew and purple blotch, can damage leeks during wet weather. Proper spacing of plants and good air movement to rapidly dry foliage will help keep plants healthy. Downy mildew forms greyish white to purple fungal growth on the surface of older leaves. Purple blotch forms oval shaped, tan and deep purple lesions on leaf blades. Yellow streaks that turn brown extend from the lesions.

VARIETIES (SUGGESTED CATALOG SOURCES 2013)

Leeks should be planted so they will mature in cool weather. They can be grown during spring by planting early maturing varieties in January or February. Late maturing varieties planted in August will mature in late fall and can be harvested during winter. If you have not grown leeks before, try planting some in February and August to compare the size and quality of plants at harvest for both seasons. You may find that one planting time is better than the other for your area. Following are some early and late season varieties to consider.

Carentan - (Baker Heirloom Seed, Organic Seeds) 75 days – European heirloom variety.

Lincoln - (Park Seed) 80 days – Plants 18-20 inches tall with stems up to 2.5 inches thick.

Roxton - (Territorial Seed) 85 days – Tidy, upright plants for early summer harvest.

Pandora - (Johnny's Selected Seeds) 90 days – Long stems with upright foliage, rust tolerant.

Dawn Giant - (Burpee) 98 days – Plants up to 15 inches tall and up to 2 inches thick at the base.

Giant Musselburgh – (Territorial Seed) 105 days – A Scottish heirloom variety dating back to the 1830's. Thick white stalks 2-3 inches in diameter. Winter hardy.

Titan – (Burpee, Oaktree Seeds) 110 days - Large, thick white stalks with a slight bulb at the base. Up to 8 inches long and up to 2 inches thick.

Striesen - (Renee's Garden) 110 days – A German heirloom variety. Strong grower with tender, white stalks.

Baby Primor - (Renee's Garden) 110 days – French hybrid developed for sweetness and tender texture, superior flavor.

Large American Flag - (Hometown Seeds) 130 days – Plants 10 inches long. Hardy, overwinters in mild climates.

Electra - (Harris Seeds) 150 days – White stem 7-8 inches long. Hardy, overwinters in mild climates.