

## Leek Growing Guide

### Growing Leeks

Leeks are hardy and easy to grow in cool climates. They can be planted according to your climate, not day length like onion plants. The best temperature for growth and production is 55°-75°F.

### Caring Instructions

Remove the plants from the box immediately. Do not put in soil or water before planting. Keep cool and dry until you can plant.

### Preparing the Soil and Planting

Leeks are best grown in direct sunlight in well-drained soil that is rich in nutrients.

### Fertilization and Watering

Follow the same guidelines as onion plants.

### Planting (A Note on Blanching)

Take the handle of a hoe and poke holes 6 to 8 inches deep where each plant will go; then place the seedlings, one to each hole, so the youngest leaf protrudes just above the soil surface. Turn on the sprinkler. This will settle the soil in the hole around the roots at the bottom and provide automatic blanching for the lower part of the stem. Plant leeks in holes 4-6 inches deep, 4-6 inches apart, in rows 6 to 12 inches apart.

### Diseases, Insects, and Weeds

Follow the same guidelines as onion plants.

### Harvest and Storage

Leeks can be harvested at any time, but because they are so hardy, are usually left in place until needed. Leeks need to be stored near 32°F and at "high humidity". Cool them upon digging. Pack them in plastic bags to prevent their drying out. Leeks can keep this way for two to three months. They can be stored frozen, and for maximum flavor, cooked without thawing.

**REMOVE PLANTS FROM  
BOX IMMEDIATELY!**

# ONION PLANTING GUIDE



**Be sure to remove your plants from the box immediately.**

**Keep your plants cool and dry until you can plant them -- do not put them in soil or water before planting.**

## Caring Instructions

*You have received live plants and they should be planted as soon as possible. The plants may appear dry from shipping but do not be alarmed, as they are dormant. Don't worry if you cannot plant immediately, even if the roots and tops begin to dry out. The onion is a member of the lily family and as such, will live off the bulb for approximately three weeks. The first thing the onion will do after planting is establish new roots.*



## Preparing the Soil

Onions are best grown in direct sunlight on raised beds at least 4" high and 20" wide. Spacing of rows should be 36" from the center of one row to the center of the next row. Onion growth and yield can be greatly enhanced by banding a fertilizer rich in phosphorous (10-20-10) 2"-3" below transplants at planting time. Make a trench in the center of the bed 4" deep, distribute 1/2 cup of fertilizer per 10 linear feet of row cover the fertilizer with 2" of soil and plant the transplants 6" from the trench on each side of the bed. Do not plant the transplants in the trench!

## Planting

Set plants out approximately 1" deep with 4" spacing. On the raised bed, set two rows on each bed, 4" in from the side of the row. Should you want to harvest some of the onions during the growing season as green onions, you may plant the plants as close as 2" apart. Pull every other onion during the growing season, leaving some to fully mature.

## Fertilization

Three weeks after planting the onions will need additional Nitrogen. If your soil is alkaline use a sulphur-based Nitrogen, such as ammonium sulfate (21-0-0), at the rate of 1 cup per 20 feet of row, and spread down the center of the top of the bed. An organic solution is Omega Grow for Onions which is the highest concentration of Nitrogen that is available organically. Spray every 14 days at the rate of 1 tbs per gallon of water. If your soil is acidic (below 6.5 pH), a calcium-based fertilizer, such as calcium nitrate, will provide Nitrogen while raising the pH. Contact your local extension agent for soil testing and analysis. Repeat this process every 2 to 3 weeks. **Stop fertilizing** within 3 weeks of harvest when the necks begin to feel soft to prevent thick necks.

## Watering

Water the transplants immediately after planting. Because of the shallow root system, onions require frequent furrow irrigation. Avoid overhead watering, which causes foliage diseases. If the foliage has an unhealthy, yellowish tint the plants are being over-irrigated. The soil will be overly dry around an under-watered crop and may become cracked. Onions generally require 30" of irrigation during a growing season and the closer to harvest, the greater the need for water. If the onion does not get enough water it will not make a large bulb. When the necks start falling over and the onions mature, watering should be discontinued and the soil allowed to dry.

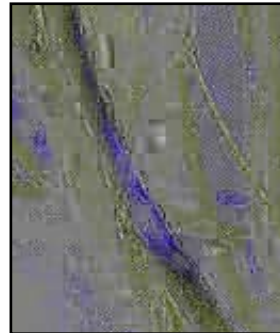
## Weed Control

Weed Control is very important during the onion growing process because onions do not like to compete with weeds for nutrients. A preemergent application of Treflan or Corn Gluten will give the onions a weed free environment for up to 6 weeks. Apply the pre emergent into the top 1" of soil and rake in to incorporate. Weeds die when they germinate and try to grow through this herbicide barrier. Reapplying the herbicides every 6 weeks will keep the area weed free. Be sure to weed the area prior to applying the herbicides since they will only kill emerging weeds. Other herbicides such as Goal or Poast can be applied at the rate of 1 pint to the acre for weeds that emerge. These herbicides are only available to licensed applicators.

Be careful not to damage the onion bulbs during cultivating. Keep soil loose so onions can expand easily but do not push dirt on top of the onions since this will prevent the onion from forming its natural bulb. A light organic mulch will help control weeds and preserve moisture but pull the mulch back from the onions when they begin to bulb so they will cure properly.

## Diseases and Insects

The two major diseases that will affect onions are blight and purple blotch. The first symptoms begin as small white spots surrounded by a greenish halo. Eventually, leaf death results and bulbs from infected plants may be small because growth is reduced by leaf loss. A good preventative fungicide spray program is important. Orienting plant rows and spacing to maximize air movement helps reduce the time that leaves are wet and results in less disease incidence and severity. Most of the problems with foliar diseases will appear after the onions have bulbed and transferred the carbohydrates



from the leaves to the rings of the onion. At the same time they are transferring the bacteria that was caused by these fungal diseases. It is too late at that time to correct the problem. The only solution is a fungicide program that starts three weeks after planting and stops when the onion tops start to fall over. Spray every 7 to 14 days with an approved fungicide such as Maneb, Seacide for onions, or Neem oil. Insects causing the most damage are the onion thrips. Silver-grey flecks and back dots are typical indication of infestation with thrips. They are light-brown in color and approximately 1mm long. They feed by rasping the surface of the leaves and sucking the liberated juices, causing deformed plants with silvery blotches. Thrips over-winter in weeds, so reduce pest populations by keeping the garden clean. Combat serious infestations with Seacide for Onions, Malathion, or Neem Oil.

Onion maggots are tiny maggots hatched from the onion fly that feed upon onions below the ground. They can have three generations per year and cause severe damage when tunneling in to the bulb and promoting disease. The best prevention is crop rotation and removal of debris and onion culls from the area. In severe cases, a soil insecticide will assist in maggot control.

## Harvest and Storage

Onion tops turn yellow and fall over when the growing process is complete. Bending the tops over early will only expedite the process and decrease bulb size. Pull the onions out of the ground and let them dry in the sun for two days. Lay the tops of one row of bulbs over the bulbs of another to prevent sunscald. When onions are dry, clip roots and cut back tops to one inch or braid uncut tops together and hang onions in an airy spot. The best way to store onions is in a mesh bag, or nylon stockings. Place an onion in the bag and tie a knot or put a plastic tie between the onions and continue the process until the netting is full. Loop the netting over a rafter or nail in a cool, dry location and when an onion is desired, simply clip off the bottom onion with a pair of scissors or remove the plastic tie. Another suggestion is to spread the onions out on a screen to allow adequate ventilation, but remember to keep them from touching each other. As a general rule, the sweeter the onion, the higher the water content, and therefore the shorter the shelf life. A more pungent onion will store longer, so eat the sweet varieties first and save the more pungent onions for storage. Every few weeks, the onions should be sorted to throw out the bad onions since they will accelerate the decaying process with all the onions with which they come in contact.

