



# Vegetable Gardening Tips

Growing Information for the Home Gardener Series



## Eggplants

The eggplant is believed to be a native vegetable of the Far East. Nutritionally, it is a good source of fiber and is high in Vitamin B and K. Eggplant fruit is also a good source of antioxidants. Eggplants are commonly stuffed, fried or cooked as a casserole.

Eggplant is a warm-season vegetable that tolerates hot weather. For best growth, eggplants require more warmth than many other vegetables commonly grown in Louisiana. They are very sensitive to low temperatures and frost.

One of the most common problems encountered in growing eggplants is transplanting them into the spring garden too early. Early season soil and air temperatures are generally too low for eggplant. These low temperatures tend to harden eggplant and stunt their growth. Since stunted plants recover very slowly, transplants should be set in the garden after the average daily temperature is 70° F. Start seeds 8 to 10 weeks before the desired time of transplanting. Gardeners in north Louisiana should start early transplanting in mid- to late April; those in south Louisiana from mid- to late March. If the weather has been continuously warm, most varieties will reach their first harvest in 80-85 days. Since eggplants will bloom and set fruit under high temperature conditions, seed can be planted through June or transplanted in early to mid-July.

A constant, rapid growth is important for quality fruit production from young eggplants. Spring-planted eggplants that are well-cared-for will produce throughout the summer and into the fall.

### Varieties

Eggplant fruit ranges from extra-large to golf ball size. Eggplant fruit is extremely diverse, ranging in color, size and shape. Skin color of the fruit ranges from dark to light purple, light to dark, variegated, violet, green, yellow, black or white. Several varieties are consistently good producers. The varieties listed here are recommended for Louisiana.



- Early, small-to-medium hybrids are Epic, Rosita, Calliope, Night Shadow, Black Bell or Dusky. Large-fruited hybrids are Santana or Classic.
- All-American Selections (AAS) are Fairy Tale and Hansel.
- Large, open-pollinated varieties that hold fruit high above the ground are Florida Highbush and Black Beauty.
- Green eggplants produce fruits that are oval, cylindrical or long, depending on the selection. The green-skinned fruit generally resist the bitterness that summer heat can bring. An example is LA Long Green.
- Oriental types are long and thin, like Ichiban.
- White culinary eggplants that are medium and cylindrical are Casper and Ghostbuster.

### Cultural Practices

Eggplants like warm, well-drained soils that are rich in organic matter. Prepare the plant beds several weeks in advance, if possible. On soils of average fertility, apply 0.5 lb. (1 cup) of 8-24-24 complete fertilizer per 20 feet of row. Build up rows 8-10 inches high to improve drainage and aeration. Rows should be at least 3 to 3 1/2 feet apart from center to center. Set the transplants 2 1/2 to 3 feet apart in the row.

Using a black plastic mulch with spring eggplants has shown good results. The plastic not only controls weeds, but warms the soil and helps retain moisture. This practice can extend your fall season or bring earlier bearing eggplant fruit by two weeks. Silver plastic mulch or aluminum mulch is also nice in larger gardens. The reflective nature of the mulch helps inhibit insect vision, and they simply do not see the plants. You must use cover three or more rows with silver reflective mulch to see benefits. Without plastic soil warming mulch, wait until mid-spring to plant eggplants and peppers. Smaller gardens should consider using pine straw, newspaper, hay or leaves as mulch.

Eggplants will grow very well in raised beds. Raised beds tend to have good drainage, allowing eggplants to reach maximum sizes quickly. If planting eggplants in raised beds, space plants the same distance apart as in rowed gardens (2 1/2 to 3 feet apart). Eggplants are large shrubs that require at least 8 inches of loose soil for adequate root growth. If constructing raised beds, make them at least 12 inches tall. This leaves space to mulch around the plants.

Maintain vigorous growth throughout the growing season by keeping soils uniformly moist. Since eggplants will be in the garden for a long time, supply a sidedressing of nitrogen once a month. Sidedress when fruit first set at the rate of 1/4 cup of calcium nitrate per 20 feet of row. Fertilize again every four to six weeks. On sandy soils, sidedress with a complete fertilizer like 8-8-8 at a rate of 1/2 cup per 20 feet of row.

Always stake eggplants, especially newer hybrid varieties that yield heavy loads of fruit. Staking eggplants while they are young is preferable because the plants grow rapidly and break easily when twisted or bent around trellising. Large tomato cages and rebar stakes with twine work well to hold up this enormous plant.

Often, fruit grown in summer taste extremely bitter. The main cause of bitter fruit is lack of soil moisture. To help prevent bitterness, irrigate during dry weather. Harvest fruit when the skin remains shiny. Once the skin dulls, eggplants fruit usually taste bitter.

The fruit may be harvested when they reach at least one-third to two-thirds their fully mature size. High quality fruit will have a high gloss to the skin. If you push in on the side of the fruit with your thumb, it should not spring back. Fruits that are dull, spongy and contain hard or brown seeds are overmature. Overmature fruit are of poor quality and should be cut and discarded to promote longer productivity. When harvesting, cut the tough fruit

stems with a knife or clippers to avoid damaging the plant branches. Fruits will store well for at least a week with refrigeration.

## Eggplant Pests

When possible, choose transplants that do not have insects on them before bringing them home from the nursery. Space plants in the garden appropriate distances and remove weeds from the garden area. Doing so will minimize disease spread and lessen unwanted insect habitat. Keep plants watered and fertilized to avoid many pest problems.

## Weeds

Weed control can be accomplished with shallow cultivation, hand pulling and the use of mulches. Black plastic mulch is an excellent option for large gardens and organic mulches such as pine straw, hay and leaves are good for smaller gardens. When using organic mulches apply them in thick layers (minimum 3 inches deep). Grasses such as crabgrass and bermudagrass can be controlled after they emerge with the active ingredient sethoxydim (Poast, Hi-Yield Grass Killer) without injuring the eggplants. Trifluralin (Treflan, Miracle Gro Weed Preventer) is a herbicide that controls many weeds before they emerge from the soil. This herbicide should be applied prior to transplanting eggplant and incorporated into the top 2 inches of soil.





## Insects

Eggplant are relatively hardy plants. Their large size and rapid growth lends them the ability to withstand moderate insect pressure. While most insects are not harmful to eggplant, this crop serves as a host of many insects that can negatively impact other vegetables in your garden. Therefore, the listed insects should be of some concern to gardeners growing eggplants.

**Aphids:** Low populations of aphids are not usually damaging; however heavy aphid infestation causes curling and yellowing of leaves and stunted plants. Black sooty mold fungus grows frequently on honeydew (sticky sap-like residue) produced by aphids. Spraying plants with water from the garden hose helps dislodge concentrated aphids from leaves. If the infestation is very high, soap solutions and neem oil, or insecticides, such as imidacloprid and bifenthrin are helpful in managing aphid populations. While spraying, thoroughly cover the whole plant especially the lower leaf surface. Controlling ants can also reduce aphid populations.

**Whiteflies:** Feeding by whiteflies can cause distortion and discoloration of leaves, wilting and stunting of plants. Like aphids, whiteflies also secrete sticky honeydew on leaves, which allows the growth of black sooty mold fungus. Monitoring the whitefly population is very helpful in managing whiteflies. Imidacloprid is labeled for use in home gardens to control whiteflies.

**Flea beetles:** Adult beetles feed on leaves by chewing small irregular holes that gives the leaves a characteristic “shot-hole” appearance. The larvae are rarely seen as they feed on roots in soil but do not cause any substantial damage. Seedlings or young plants are more prone to damage by flea beetles. Cultural control using row covers and reflective mulches can help in controlling this pest. Generally, the LSU AgCenter does not recommend

spraying eggplant with insecticides for flea beetles in the home garden. Flea beetles rarely cause yield loss to eggplant.

## Diseases

Fungi cause the majority of diseases on eggplant. Most leaf spotting fungal diseases occur when there is high humidity and moderate temperatures.

Cercospora leaf spot (Frogeye leaf spot) and early blight are common leaf spotting diseases on eggplant. Alternaria leaf spots are irregular in shape with concentric rings and a yellow halo. Brown spots with a light grey center and dark brown margin are typical of Cercospora leaf spot. For both diseases, spots usually appear on the lower leaves first and move up the canopy. Both diseases can be effectively managed by applying a fungicide containing mancozeb or chlorothalonil on a weekly basis. If left unmanaged, the plants will drop their leaves prematurely, exposing the fruit to direct sunlight, resulting in sunscald.

Phomopsis fruit rot and blight is probably the most common fungal disease on eggplant in Louisiana. The disease affects all above ground parts of the plant. Affected stems will have brown, elongated lesions. As the stem lesions expand, the leaves attached to the stem wilt and die. On the fruit, multiple, tan colored, sunken areas develop and eventually the spots will cover most of the fruit surface. If fruit symptoms develop early, the fruit will not grow to their full size and will ripen prematurely. The fungus persists on in seed and overwinters in residue from diseased plants. Spores of the fungus are spread by splashing water. Resistant varieties and weekly sprays of a fungicide containing mancozeb or copper will help to prevent disease. Diseased fruit should be removed and discarded.

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