Starting Gourd Plants Indoors

By Diana Pearcy, UC Master Gardener

--- **Clip seed tips with a nail clipper:** Because gourd seeds have an extremely hard protective coat, many growers find that snipping the shoulders of the seed encourages germination.

--- **Pre soak seed:** Soak seeds for 24 hours to reduce length of germination time. Soaking any longer may cause the seeds to rot.

--- **Plant seeds in peat pots:** Start seed in a 4 inch peat pot. This will allow plenty of room for root development. **Add soil:** Use a soil mixture specifically designed for seed sprouting. Plant seeds about 1 inch deep, with 2-3 seeds per pot.

--- **Cover tray:** Cover the entire tray with plastic so that the containers keep warm and moist. Check daily.

--- **Watch plants grow:** The first "leaves" to appear are not really leaves but the cotyledons, smooth-edged and round in shape. The next leaves to appear are the true leaves of the plant, with irregular edges and five-lobed outline. Plants can be raised in containers until they reach the 4 "true leaf" stage in about 4-6 weeks.

--- **Harden the plants:** Prior to planting outdoors plants need to be hardened. This is accomplished by placing trays outside starting for a short time (15 min.) and gradually increasing the time until they can be left outside for 24 hours.

--- **Plant outdoors:** Plant after the last frost (March 15th in Tulare County). Gourds need 110-120 days to reach maturity. Larger gourds may need 175 days.

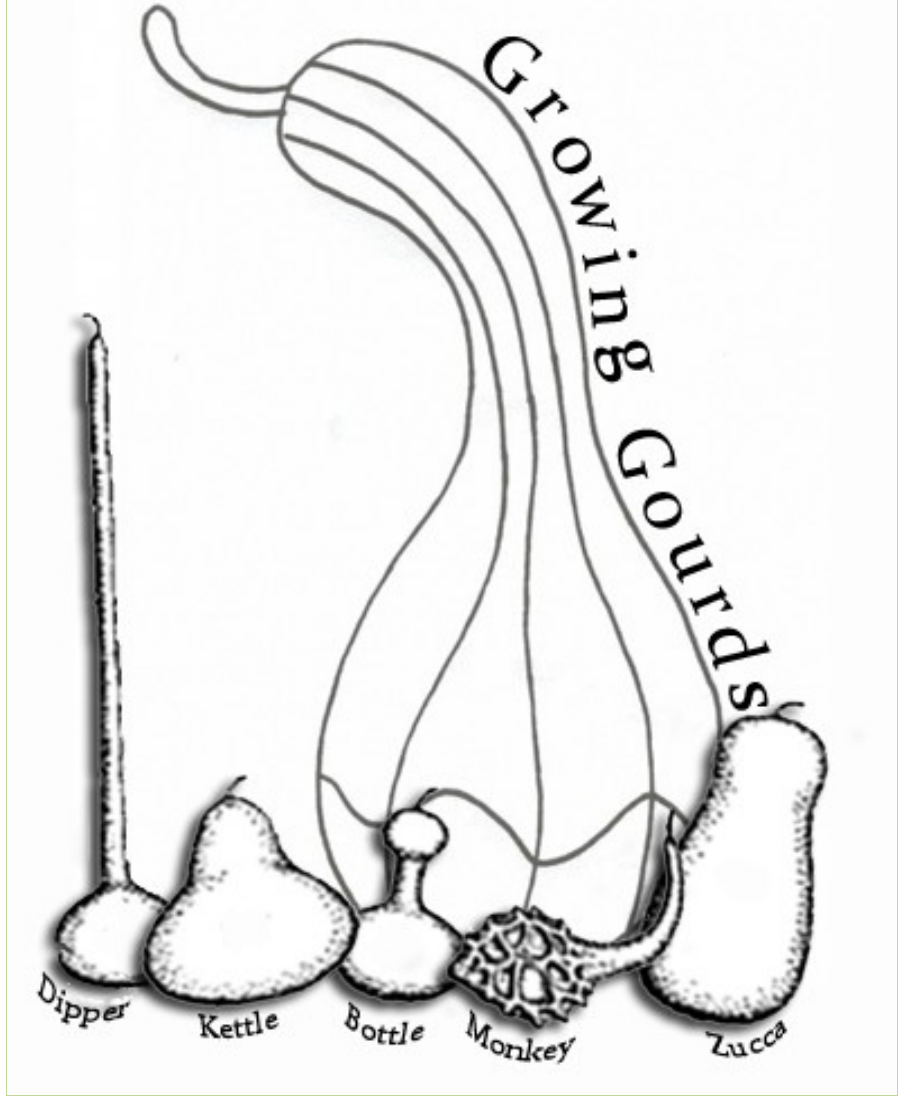
Sources of Gourd Information

Diana Pearcy, MG, Gourd Grower (559) 798-2343 E-mail: dianapearcy1@yahoo.com

Cecile Garrison, MG, Gourd Grower (559) 740-6060 E-mail : ocecile123@yahoo.com

- Pest Management Guidelines at UC Integrated Pest Management: http://www.ipm.ucdavis.edu/
- Johnson, Jr., H. 1980. *Fruit Set Problems in Squash, Melon & Cucumber in Home Gardens* UC ANR Leaflet 21242. Free at http://vric.ucdavis.edu/pdf/fruitsetproblems.pdf
- Summit, Ginger. 1998. *Gourds in Your Garden.* Hillway Press, Los Altos, CA
- Heiser, C.B. 1979. *The Gourd Book.* University of Oklahoma Press, Norman, OK.
- Bailey, L.H. 1956. *The Garden of Gourds*. Am. Gourd Soc., Inc., Mt. Gilead, OH.

California Gourd Society www.calgourd.com
American Gourd Society www.americangourdsociety.org
Gourd Seeds www.quarryfarmgourds.com



Line drawing by Denise Pearcy

Growing Lagenaria Gourds

brought to you by the

UC Master Gardener Program of Tulare & Kings Counties

Have a gardening question? The UC Master Gardeners offer free information on gardening. Call anytime and we will return your call.
Tulare: (559) 684-3325 or 684-3326 Hanford: 582-3211 ext. 2736

Growing Hard-Shell Lagenaria Gourds in Tulare and Kings Counties

By Cecile Garrison, UC Master Gardener

Gourds are members of the Cucurbit Family along with summer and winter squashes, pumpkins, cucumbers and melons. All are native to the Americas. The hard shell gourd (*Lagenaria siceraria*) comes in many shapes and sizes and is not considered edible except in the very early stages of growth. The name Lagenaria comes from the Latin word "lagena", meaning bottle and before the invention of pottery, gourds were fashioned and used as utensils, bowls, bottles and containers. Today's uses also include musical instruments, religious objects, arts and crafts, and sophisticated artwork.

How Gourds Grow: Lagenaria gourds are "fruits" (botanically) that are produced on vines that grow during the warm season. Seeds or seedlings should be planted in full sun in early April after all danger of frost is past. The soil pH should be fairly neutral (between 6.5-7.5). Loose, porous soil will enable the growth of a large root system, which is needed to obtain nutrients and water during the rapid growth period of the vines. Composted steer manure or other organic soil amendments should be tilled to a depth of 12 inches to help prepare the seed bed so it can sustain the large vining plants.

The soil and root zone should be consistently moist but not soggy during the first 3 months of rapid growth. Soaker hoses or drip methods are water efficient and should be in place prior to planting. Overhead watering is not recommended because the dense foliage traps humidity and the plants are already susceptible to powdery mildew and mold.

Plant seeds in mounds or rows that are 4-8 feet apart. *Martin, Bushel Basket, African Kettle* and other large varieties can weigh 50 to 100 pounds each at harvest and should be grown on the ground. Smaller hard shelled gourds such as *baby bottle, jewelry, dippers* and others can be grown on a trellis, arbor or fence.

Gourd vines produce male and female flowers on the same plant (monoecious). The male flowers do not produce fruit but they do supply the pollen that fertilizes the female flowers (plants are self pollinated), but insects (primarily honeybees) are needed to transfer the pollen for fruit to develop. Gourds within the same species, e.g. *Lagenaria sisceraria,* can cross with one another and develop new forms (cross pollinated). Seed growers have maintained the individual shapes and colorings of the Lagenaria gourd types by isolating the growing areas.

In May and June the primary vine produces male blooms and the secondary vines produce the female flowers. Although both flowers have large white petals, they do have distinguishing characteristics (female flowers have a miniature fruit at the base of the petals). In approximately 6-8 weeks the vines begin to run or grow in all directions at a measurable daily rate. At this point some growers add a balanced fertilizer such as 10-10-10, 10-6-4, or other fertilizer of choice. Too much nitrogen fertilizer can lead to lush vines, but not necessarily an abundant fruit crop.

All of the fruits (gourds) form on the secondary vines. Heavy vine pruning will lead to fewer, but larger fruit. If the goal is many small gourds, then stop the primary vine at 10 feet but allow the secondary vines to grow.

Night flying moths, bees and primarily beetle insects pollinate most cucurbits, including Lagenaria gourds. It helps to plant a variety of pollen and nectar producing flowers in and near the gourd patch to attract bees and other beneficial insects to help ensure successful pollination and aid in pest control.

The blooms are only fertile for a 24 hour period beginning in the early evening. Hand-pollinate by removing a fresh male blossom and inverting it over a fresh female blossom or use an artist paintbrush to remove pollen from the male and deposit it on the female flower. The goal of early pollination is to ensure the fruit will reach maturity before the first frost. It takes 3-6 months for gourds to mature. Slow the watering in August and stop it completely by the end of September.

Pest management: Refer to the UC IPM website and publications for current management information on weeds, diseases, and insects in cucurbits.

- Control weeds by shallow scraping with a hoe or removing by hand. Fruit damages easily with careless handling during the growing or harvest season.
- The most common and damaging diseases are powdery mildew, bacterial wilt and viruses. Spacing plants at least four feet apart and avoiding overhead watering in the evening helps prevent most disease problems. Sometimes it is necessary to remove and destroy heavily diseased plants.
- The most damaging insects are the squash bug, cucumber beetle, aphid and whitefly. Young seedlings are especially susceptible and can be destroyed overnight. Heavy use of pesticides is not recommended, since many beneficial insects including honeybees are destroyed in the process.

Harvest and Postharvest: When the stem is completely dry and brown, it is safe to cut the fruit from the vine. Cut at least 6 inches of vine with the fruit. Remove and compost the vines after harvesting the fruit. It is good practice to rototill after harvest and again before spring planting in an attempt to disrupt the life cycle of cucumber beetles and squash bugs. Do not carry the fruit by the stem or hang it by the stem to dry. Gourds can be 95% water when harvested and the stem will

not support the weight. Store the gourds in an area with good air circulation so they cure, but not inside a dwelling.