



Growing Vegetables in a Hobby Greenhouse

Many Louisiana homeowners have small greenhouses for growing potted plants and for starting annual flower and vegetable plants. You can also grow high quality fresh vegetables in a home greenhouse during the cold months to add variety and interest to the family diet.

Tomatoes, cucumbers and lettuce are grown commercially in greenhouses. Other crops that can be grown include peppers, melons, squash and beans. Hobbyists can grow lettuce and radishes in benches and herbs in pots. Tomatoes, peppers and cucumbers can be grown in large pots or other containers, or in ground beds. All these crops need a greenhouse that receives full sun all day.

Temperature requirements vary among different crops, posing a problem. Lettuce and radishes should be grown at a night temperature of 45 degrees F. Melons, peppers and cucumbers require 65 degrees. Lettuce will grow at a higher

temperature, but vine crops will not thrive at lower temperatures. If both lettuce and cucumbers are desired, you'll need to grow them at night temperatures of 65 degrees.

TOMATOES:

Varieties such as Tropic, Vendor, Jumbo, Trust, Caruso or greenhouse types are suitable for home greenhouses. Fall and spring crops may be grown. A fall crop produces less than a spring crop because of decreasing day length.

Sow seed for the fall crop in late July, and set out these plants in early September. Sow again at Thanksgiving, and set early in January. It takes

about three months from seeding to picking in the fall, and four months in spring.

Start your seeds in flats. Transplant into 4-inch pots when seed leaves are fully grown. Allow plenty of room for good, stocky plant development (about 36 square inches per plant). Set out plants when they are 6 to 10 inches apart in the row, 3 to 3 ½ feet between rows.

Train plants to a single, upright stem by supporting them with stakes, poly twine or 4-ply jute string tied to a strong wire 7 to 8 feet above the ground. Tie the bottom of the string loosely around the bottom of the stem or to a wire strung along the ground beside the plants. Wrap the string around the stem. Prune side shoots weekly.

Grow tomatoes at 60 to 65 degrees F night temperature. Day temperature should not go above 90 F. Ventilate at 75 F, and shade lightly in mid spring. Below 55 F, blossoms do not set well and fruit is often misshapen. Above 85 F, plants are spindly and fruit and leaves are small.

Tomatoes do not require cross pollination, but they must be self-pollinated. To help pollination, tap wires or strings or vibrate the blossoms every other day, especially in cloudy, damp weather. (Pollinate peppers daily.)

Tomatoes require only light fertilizing until fruit starts to develop, then they need weekly feeding with a complete liquid fertilizer. Overfertilizing young plants results in soft growth and poor fruit set. Special tomato and greenhouse tomato foods are available.

Mulching with straw when plants are about 2 feet tall reduces evaporation of soil moisture and helps to maintain an even moisture supply and lower humidity.

Water is needed. Frequency of water varies with media, temperature, sunshine, day length and plant size. Don't let plants wilt before watering, but don't keep the soil saturated constantly since the roots require air as well as moisture. Thoroughly soak the soil 6 to 8 inches deep each watering. In January, young plants may need water every 10 to 14 days. Daily watering may be neces-

sary in June. To avoid diseases, water early in the day so plants can dry out before dark. Avoid wetting foliage.

PEPPERS:

Peppers are grown similarly to tomatoes, but they grow more slowly and like higher temperatures. Pollinate well.

CUCUMBERS:

High temperature, humidity, sunlight, moisture and nutrient levels are required for this crop. Burpless Hybrid is a popular variety for greenhouse culture, although any European burpless and seedless style will do well, especially Fidelio.

Start seed in 4-inch pots or sow directly. If sown in pots, thin to one plant. Give plants plenty of room.

Set plants 18 inches apart in rows 3 feet apart. Train plants to a single stem. Pinch off all lateral branches to 30 inches. Support plants by trellising the same way as tomatoes. Wrap plants around the string frequently. Clips or tapes will be needed.

Cucumbers thrive at high temperatures, 65 F at night and up to 85 F on sunny days.

Water with lukewarm water in the same manner as tomatoes. Mulching soil beds really benefits cucumbers. Cucumbers are heavy feeders and should be fed weekly with a liquid fertilizer once the fruit begins to form. They like a little more nitrogen than tomatoes.

Since most regular cucumbers bear both male and female blossoms, special pollination is necessary. Commercial growers use special seedless hybrids. The hobbyist can pollinate blossoms manually by gently rubbing the female blossom center with a male blossom center. Occasionally, cucumber blossoms set fruit without pollination. Most long-fruited European cucumbers are bred for greenhouses and don't need to be pollinated by hand.

Melons and squash require hand pollen transfer. They are grown much like cucumbers. Their fruit must be supported.

LETTUCE:

Varieties suitable for greenhouse culture include Ostenada, Salina, Bibb, Blackseed Simpson, Buttercrunch and Boston (Yvonne). Lettuce grows best at 45 to 50 F nights and 60 F days. It tolerates temperatures suitable for tomatoes, but the crop may not be quite as good as when grown at lower temperatures.

Sow seeds in flats. When 2 to 3 inches tall, set plants in beds at spacings of 6 inches by 9 inches by 9 inches, depending on variety. A crop can be produced in eight weeks in warm weather.

Since lettuce has a shallow root system, frequent watering is necessary. Feed when you transplant and again every two to three weeks.

RADISHES:

Most radish varieties grow well in greenhouses. Early Scarlet Globe is popular. Radishes grow best at 55 F nights and 60 to 70 F days. An early or late crop can be grown in three weeks; the winter crop takes longer.

Sow seeds in rows 3 to 6 inches apart and thin plants to 1 inch. Water frequently to provide ample moisture, and feed every two weeks. With both lettuce and radishes, pale growth indicates a lack of nitrogen and is corrected by feeding.

PESTS:

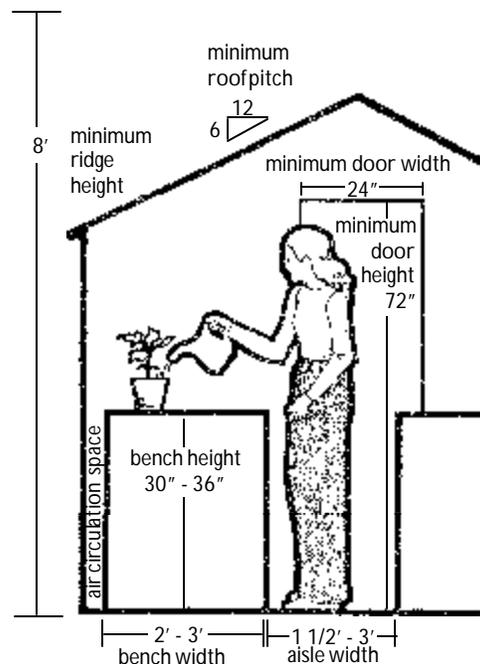
Aphids, spider mites and white flies are the most common insect problems in a greenhouse. Insecticides for their control are available as sprays, aerosols, fogs or smokes. Try insecticidal soap, too. Screens will stop many of the larger pests.

WARNING!

DON'T USE SMOKES, AEROSOLS OR FOGS IN GREENHOUSES ATTACHED TO A HOME OR OTHER OCCUPIED BUILDING SINCE THE FUMES ARE DEADLY!

Controlling humidity by adequate ventilation and proper watering practices can help prevent diseases.

Pesticides cleared for control of greenhouse insects and diseases are limited. Consult your county agent for the latest recommendations.



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