



'UH Sweet Basil'

A New Basil Cultivar Tolerant of Fusarium Wilt

'UH Sweet Basil' is a new basil cultivar that is tolerant of fusarium wilt, a serious and widespread plant disease that limits basil production in many areas of Hawaii and the world. 'UH Sweet Basil' is suitable for planting in fusarium-infested soils in which susceptible sweet basil varieties would succumb to the disease.

'UH Sweet Basil' was selected from 'Genovese Basil' and is similarly suited for pesto and other sweet basil uses. It produces green leaves about 2 inches long. The plant height usually ranges from 24 to 30 inches, depending on plant spacing and other growth conditions.



Fusarium wilt disease of basil

Fusarium wilt disease is caused by the fungus *Fusarium oxysporum*. Once introduced, the fungus may survive in the soil and can survive there for many years to affect future plantings. It may also be on the seeds of infected plants, and thus it can be transported to "clean" locations when new plantings are made with infested seed or infected seedlings. Avoid purchasing basil plants that have any signs of disease.

Early symptoms of fusarium wilt disease are yellowed shoots, twisted young leaves, internal discoloration within the stem, and a few rotted leaves. As the disease advances, a black stem rot progresses upward, the plants wilt, the shoots die back, the leaves drop, and the plant may die.

'UH Sweet Basil' is tolerant of fusarium wilt, but *it is not completely resistant*. Some plants may become infected, particularly later in the crop cycle. If diseased plants are observed, they should be removed immediately, taken from the site, and destroyed. Removing diseased plants will minimize the buildup of fungal inoculum in the soil. Low levels of fungal inoculum reduce disease "pressure" on the remaining plants so that their tolerance is not severely challenged.

Seeds produced on infected plants may contain spores of fusarium. Use only seeds from healthy plants. Keep plantings weed-free and do not allow basil plants to "volunteer" from seeds left by previous crops.

Growing basil in the home garden

Sweet basil (*Ocimum basilicum*) is a popular herb which can easily be grown in your garden. Basil is a member of the mint family and is a native of Central Asia and northwest India. Planting a cultivar such as 'UH Sweet Basil', which is tolerant of fusarium wilt, may increase your chance of success in conditions where the disease previously has been a problem.

Basil can be planted year-round in most locations in Hawaii. The plants prefers sunny locations and well drained, fertile soil with a pH between 6.0 and 7.5. Basil can be started either as transplants or by sowing seeds directly into the soil. Many gardeners choose to start the seeds in a commercial planting mix and then transplant the seedlings into the garden or into pots or other containers. Plants may be spaced 1–3 ft apart, depending on the desired plant size.

Basil can be harvested 30–35 days after transplanting. Regular harvesting of some of the leaves and removing the flower spikes will encourage plant growth. Harvested basil is sensitive to rough handling, chilling, and drying. Holding the harvested basil in a refrigerator may cause chilling damage and result in the leaves turning black.

Seed availability

Seed of 'UH Sweet Basil' is available for sale from the Seed Program, College of Tropical Agriculture and Human Resources, University of Hawaii, 3190 Maile Way, Room 112, Honolulu, HI 96822; telephone (808) 956-7890, fax 956-3894, email <rsakuoka@hawaii.edu>.

Randall T. Hamasaki, Cooperative Extension Service—Oahu