

Central Florida 4-H Citrus Tree Project 2002 – Earlygold scion on Swingle citrumelo rootstock

There are several ways that new varieties and rootstock of citrus are produced. Some are very complicated and involve very sophisticated techniques. Other methods have been around for many years. A common way to obtain new selections is through cross pollination, where the pollen from one flower is placed on the pistil of another and the result is a hybrid. Another method is to plant seeds and select a small number of healthy plants to determine if these seedlings produce a superior tree.

Earlygold Orange scion

This variety came from seeds collected in Brazil. Dr. Bill Castle, a research scientist with the University of Florida collected seeds from many places all over the world. He felt that each variety had the possibility of producing oranges that would have better juice color, mature earlier or later than existing varieties used in Florida, give better yields, or have some other characteristic that would make them useful for the citrus industry. This particular variety came from Brazil, the actual name of the parent tree was lost during the collection process. Dr. Castle feels it was from a variety called Seleta. The seeds were planted and when the seedlings were very young (plants about 18 inches tall) a bud was taken and grafted onto Swingle citrumelo rootstock. A small number of the grafted plants were then planted in the field. The location of the field was near St. Cloud in Osceola County. After 10 years of testing the trees for yield, juice color, time of maturity, and fruit quality Dr. Castle decided to release 9 selections of the more than 100 tested. Earlygold was one of the nine. The fruit have less than 10 seeds and the juice has excellent color (as good as a Valencia orange). The fruit reaches maturity early in the season, in some years it was ready to be marketed in late October. Many growers are planting this variety because it has excellent yields and produces an excellent quality fruit early in the season.

Swingle citrumelo rootstock

This rootstock was produced in 1907 by pioneer citrus researcher Walter T. Swingle. It is a traditional hybrid (cross between two plants) with Duncan grapefruit and trifoliate orange as the parents. The cross was made in Eustis, Florida and the rootstock received very little attention until the 1940's when it became part of rootstock trials in Florida, Texas and California (it was designated as CPB4475). It did very well in all the trials and the USDA officially released it in 1974 and named it for the original breeder, Dr. Swingle. After its release this stock has gained tremendous popularity in Florida, and is the most widely used stock today. It is cold hardy, resistant to most diseases, and does well when planted on sandy soils. Swingle is not the perfect stock, and has some limitations; however, it should produce an excellent Early Gold tree that will do well when planted in sandy soils.

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