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# Walnut Varieties for Oregon

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## Franquette

Franquette has long been the principal walnut variety grown in Oregon. The Franquette walnut was selected from among the best seedling trees growing in France in the late nineteenth century by Mr. John Rock, a nurseryman from Niles, California. The Vrooman strain is most commonly grown in Oregon. Franquette has been popular because of its good seal and very light kernel color.

Franquette trees have been very severely injured or killed by fall freezes about every 20 years. They also have suffered less severe damage in milder freezes. Franquette nuts mature so late that muddy conditions make mechanical harvesting all but impossible. They come into bearing slowly and produce less than many other varieties. The nuts are quite variable in size, with a tendency to be small in heavy cropping years.

In 1956, the Walnut Variety Committee of the Nut Growers Society of Oregon and Washington stated that they recognized that "our old standard variety, Franquette, is not the nut for our needs. We also recognize that this program (variety testing) might take as long as 20 to 30 years to complete." They wrote further that "the ideal variety needed is one that is a fast grower, less susceptible to winter injury than Franquette, and an early producer that will bear on lateral buds as well as terminal buds. It should leaf out about the time of Franquette but mature two weeks earlier. It should be consistently heavy producer of large size nuts of good quality. By good quality we mean hard shell, well sealed, and with a good fill of light colored kernels. Blight resistance also has been sought."

Walnut growers, the USDA, and Oregon State University are cooperating in a long term variety testing program. The following varieties after about eight years of production in trials, appear promising enough for limited commercial planting.

## Hartley

Hartley originated in California where it is planted extensively. It is probably not hardier than Franquette. Hartley leaf out 10 to 14 days before Franquette and matures its nuts from 12 to 14 days earlier. The tree is moderately vigorous, often with weak crotches. The

limbs tend to be flexible and drooping and the tree is more difficult to shape. Necked buds should be removed from newly planted trees because they will form very weak crotches. Hartley is a heavy producer on both terminal and lateral shoots. Franquette or Spurgeon are suggested as pollinizers. It is susceptible to blight.

The nuts are turbinate-pointed and flattened on the stem end. They are larger than Franquette with about the same percentage kernel. The extra light kernels have a moderate tendency to shrivel. Flavor is good. A small pinhole in the base of the shell leads to yellowing of the kernel in wet weather.

## Spurgeon

The Spurgeon Special, also called Bruce Spurgeon, walnut variety originated as a seedling on a farm in Fruit Valley, Washington. John R. Spurgeon discovered the seedling about 1914 and propagated it in his own orchard.

Spurgeon trees are reported to have survived the 1953 freeze with less damage than Franquette. They leaf out with Franquette in spring and the nuts mature at about the same time. The tree is moderately vigorous, moderately productive, and a terminal bearer like Franquette. It is less susceptible to walnut blight. The nut is larger than Franquette, elliptical in shape, and has a slightly higher percent kernel. It has little tendency to shrivel.

## Adams

The Adams walnut originated as a seedling from an open-pollinated Manregian walnut tree on the Moses P. Adams place in West Salem, Oregon. It was released as a new variety in 1955 by Oregon State University.

Adams trees, due to their Manregian parentage, are expected to be winter hardy. They leaf out 10 days to two weeks before Franquette and the nuts mature 12 to 14 days earlier.

The tree is very vigorous and slow to come into production. It is moderately productive and bears on terminal and lateral shoots. It is slightly tolerant of walnut blight. The nut is larger than Franquette, elliptical to slightly obovate in shape, with good flavor and moderate tendency to shrivel. When grown under commercial conditions, the nut usually has about 45 to 46 percent kernel. The kernels often have dark veins and more amber color than Franquette.

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**UC 49-46**

UC 49-46 is an unnamed hybrid released by the University of California for limited commercial testing. It is an outstandingly heavy producer at an early age. It is suggested for use as a temporary filler tree in new plantings. In California the kernels usually develop "pepper spot," but in Oregon this problem occurs infrequently. The winter hardiness characteristic of UC 49-46 is unknown and may be rather limited. The tree is low in vigor, but exceptionally productive. It bears both on terminal and lateral shoots. It is advisable to head-back new growth on young trees to strengthen the limbs.

UC 49-46 leafs out 10 days to two weeks before Franquette and the nuts mature two to three weeks earlier. It is susceptible to blight. Hartley or Franquette are suggested as pollinizers.

The round-elongate nuts of UC 49-46 are larger than Franquette with a high percent kernel. They have a high tendency to shrivel, as does Franquette. The kernels are slightly darker than Franquette.

**Adams No. 10, Chambers No. 9, Wepster No. 2**

Adams No. 10, Chambers No. 9, and Wepster No. 2 are selections from seedlings of an open-pollinated Manregian tree. Adams No. 10 was selected by the late Moses P. Adams, Chambers No. 9 by Dan P. Chambers of Hillsboro, and Wepster No. 2 by Bert Wepster of Sheridan. Because of their parentage, these varieties are expected to be winter hardy. They leaf out in early to mid-season, before Franquette. The trees are more vigorous than Franquette. They are susceptible to blight, but Chambers No. 9 is less susceptible than Franquette. Hartley, Mayette, or Franquette are suggested as pollinizers. All have large nuts and light kernels.

Chambers No. 9 is an outstandingly heavy producer. Its nuts are consistently large and round to elongate in shape. They have a moderate tendency to shrivel.

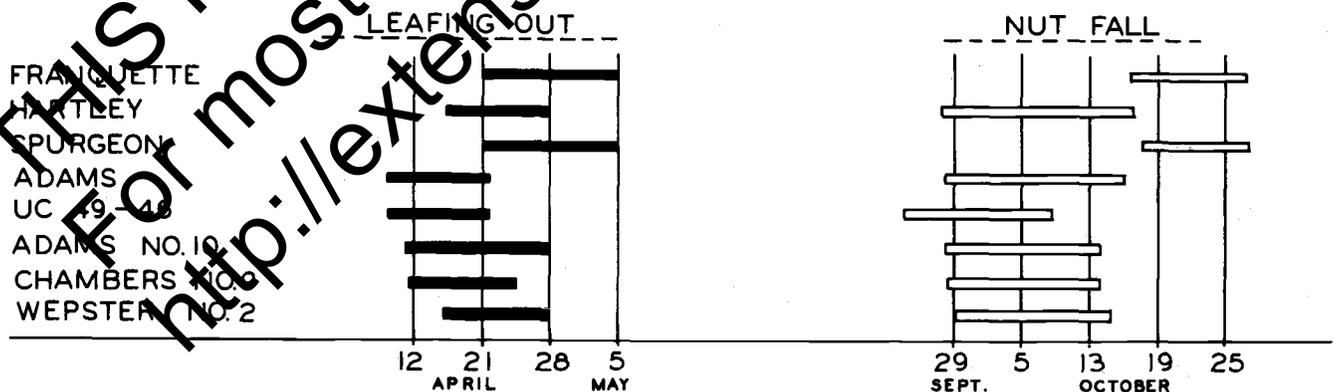
Adams No. 10 and Wepster No. 2 have large nuts with a high percent kernel. Adams No. 10 has a high tendency to shrivel. Its shape is similar to Franquette. Wepster No. 2 has little tendency to shrivel.

**Nut Characteristics, New Walnut Varieties**

	Percent kernel*			Average percent large or better*	Tendency to shrivel
	Low	Avg.	High		
Franquette .....	39.9	45.0	51.5	38	High
Hartley .....	41.3	44.3	50.7	83	Moderate
Spurgeon .....	36.8	41.2	49.5	89	Little
Adams .....	43.9	46.7	52.1	86	Moderate
UC 49-46 .....	43.8	48.4	51.5	82	High
Adams No. 10 .....	45.8	48.3	50.3	86	High
Chambers No. 9 .....	44.6	46.9	50.6	99	Moderate
Wepster No. 2 .....	48.1	49.8	52.1	72	Little

\* These data are from variety collections and individual parent trees. Performance of these varieties in regular commercial orchards might give somewhat different results. Franquette, for example, usually has 40 to 43 percent kernel in mature orchards.

**TREE CHARACTERISTICS, NEW WALNUT VARIETIES**



\* Varieties that leaf out early should be planted on frost-free sites. Adams, UC 49-46, Adams No. 10, Chambers No. 9, and Wepster No. 2 might bear more regularly on hillside sites with good air drainage than on the valley floor.