

Walnut Varieties for Oregon

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.

Good characteristics of Franquette include late bloom time, which avoids most spring frosts; and well-sealed nuts with light kernels and symmetrical, elliptical nut shape.

Bad characteristics include: relatively low production in many years because it bears only on terminals; small nuts in years of heavy crops; low percentage of kernel; high tendency to shrivel in cool seasons; susceptibility to blight; late nut maturity; and slowness to begin bearing. Franquette trees have been 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.

That Franquette is not the ideal walnut variety for Oregon has long been recognized. To find better walnut varieties, walnut growers, the USDA, and Oregon State University are cooperating in a long-term variety testing program.

Hartley

Good characteristics of Hartley include: heavy yields on both terminal and lateral shoots; nuts maturing from 12 to 14 days earlier than those of Franquette; nuts larger than those of Franquette with about the same percentage of kernel; extra-light kernels with good flavor; and little tendency to shrivel.

Bad characteristics include: no more resistance to damage from fall or early winter freezes than Franquette; blooming time earlier than that of Franquette; leafing out 10 to 14 days earlier; occasional loss of catkins due to spring frost; flexible, often drooping limbs with weak crotches; small hole in the base of shell leading to yellowing of the kernel in wet weather; susceptibility to blight; and low percentage of kernel. The nuts are turbinate pointed and flattened on the stem end. Necked buds should be removed from newly planted trees because they will form very weak crotches. As the tree gets older, there is much less breakage. Franquette or Spurgeon walnuts will serve as pollinizers.

Spurgeon

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.

Good characteristics of Spurgeon include: bloom time later than that of Franquette, which avoids most spring frosts; use as a pollinizer for Franquette; less susceptible to blight than Franquette; nut larger than that of Franquette; a slightly higher percentage of light kernels; and little tendency to shrivel. Spurgeon trees survived the December 1972 freeze with little damage in orchards where Franquette trees were completely killed.

Bad characteristics include: slow to begin bearing; low yields because it bears only on terminals; especially attractive to walnut husk fly; and nuts maturing late. The nut is elliptical.

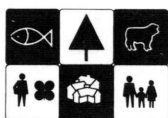
Moyer

Moyer walnut variety originated as a seedling growing near Roseburg, Oregon. It is primarily of interest as a late-blooming pollinizer for Franquette. Moyer sheds its pollen at a time that coincides well with the female bloom of Franquette. The Moyer tree is slow growing and slow to begin bearing. It has a round nut that does not mix with elliptical nuts of some varieties. The percentage of kernel is low, similar to that of Franquette. The kernel is light colored and has a good flavor.

Manregian seedlings

Seeds of the "English" walnut, *Juglans regia*, were brought to Chico, California, from Manchuria. One of these seedlings was sent to Oregon and became the Manregian. A few promising selections of Manregian seedlings are suggested for limited commercial planting. They generally bloom earlier than Franquette, so they should be located only on a frost-free hillside site. Nuts of Manregian selections also mature 10 to 15 days earlier than those of Franquette.

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



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Nut Characteristics, New Walnut Varieties

	Percent kernel* (Average)	Percent large or better* (Average)	Tendency to shrive
Franquette	43.0	38	High
Hartley	44.3	83	Moderate
Spurgeon	46.2	92	Little
Moyer	43.0	---	Little
Adams	46.9	86	Moderate
Adams No. 10	48.3	86	High
Chambers No. 9	46.9	99	Moderate
Wepster No. 2	49.8	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.

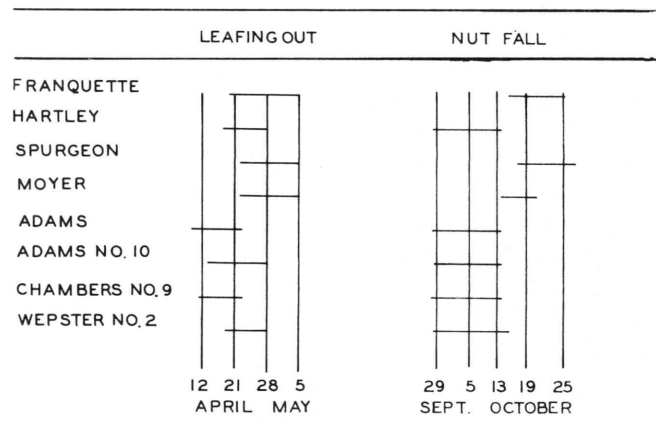
The Adams tree is very vigorous and slow to begin bearing. It is moderately productive and bears on terminal and lateral shoots. The tree is especially attractive to walnut husk flies, and slightly tolerant of walnut blight. The nut is larger than that of Franquette, elliptical to slightly obovate, and has a good flavor and moderate tendency to shrivel. When grown under commercial conditions, the nut usually has a kernel percentage of about 45. The kernels often have dark veins and are more amber than those of Franquette.

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. 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 and have just a moderate tendency to shrivel.

Nuts of Adams No. 10 and Wepster No. 2 are large, with a high percentage of kernel. The nut of Adams No. 10 has a high tendency to shrivel in cool seasons. Its shape is similar to that of Franquette. Wepster No. 2 has little tendency to shrivel.

TREE CHARACTERISTICS, NEW WALNUT VARIETIES



Numerous other promising Manregian selections are under observation but have not been grown in enough locations or observed long enough to suggest that they be planted commercially.

Nut and tree characteristics shown in the tables were determined over a period of years from trees grown in several trial plantings by cooperating commercial walnut growers. Observations were made and samples were collected by the OSU Cooperative Extension Service. Nut samples were tested by USDA horticulturists.

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