THREE NEW WALNUT VARIETIES:  Sexton, Gillet and Forde

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The University of California has recently announced the release of three new walnut varieties from the Walnut Breeding Program. These will be patented as ‘Sexton’, ‘Gillet’ and ‘Forde’.

‘Sexton’ (UC90-31-10) (Figs 1 and 2) is characterized by very high yields on young trees and a harvest date at least one week before ‘Chandler’. ‘Sexton’ leafs out a week before ‘Chandler’ but has low blight scores and is 100% fruitful on laterals with abundant male and female flowers. ‘Sexton’ is protandrous but the male overlaps most of the pistillate bloom. Potential pollenizers are ‘Howard’, ‘Tulare’ and ‘Chandler’. The nuts are relatively smooth and round with good seals and good strength. The kernels are light colored, easy to remove from the shell and at 8-9 grams make up more than 50% of the nut weight. ‘Sexton’ has a densely branching canopy and will require substantial training and pruning of young trees to prevent overbearing. A second flowering can occur and may result in a few small nuts. ‘Sexton’ is named after Joseph Sexton who started the walnut industry in Southern California with the planting of Santa Barbara soft-shelled walnuts in 1868 in Goleta. ‘Sexton’s parents are ‘Chandler’ for quality, and UC85-8, a Chinese introduction, for yield, size and precocity. The cross was made in 1990.

‘Gillet’ (UC95-22-26) (Figs 1 and 2) has high yields on young trees and a harvest date 10-20 days before ‘Chandler’. ‘Gillet’ leafs out a week or more before ‘Chandler’, is protogynous, 100% laterally fruitful and has a very low blight score. Potential pollenizers are ‘Payne’, ‘Vina’, ‘Serr’ and ‘Sexton’. The nuts are somewhat more oblong than ‘Sexton’ but are similar with adequate seals and strength, easy to remove light colored kernels and an 8.2 gram nut which makes up over 50% of the nut weight. ‘Gillet’ is the most vigorous of the three new varieties. ‘Gillet’ is named after Felix Gillet who introduced walnut varieties like ‘Franquette’ into northern California near the turn of the century. ‘Gillet’s parents are UC76-80 for quality and ‘Chico’ for yield. The cross was made in 1995.

‘Forde’ (UC95-26-37) (Figs 1 and 2) also has high early yields and a harvest date that averages 5 days before Chandler but has been moving earlier, up to 10 days before ‘Chandler’. ‘Forde’ leafs out about 5 days before ‘Chandler’ and is protogynous, 100% laterally fruitful and has a low blight score. Potential pollenizers are ‘Payne’, ‘Vina’, ‘Serr’ and ‘Sexton’. The nuts are oval to round and medium textured with good seal and shell strength. The large kernels (9 gram) are light and extra light and make up about 54% of the total nut weight. ‘Forde’ is intermediate in vigor between ‘Sexton’ and ‘Gillet’. ‘Forde’ is named after Harold Forde who was an outstanding walnut breeder at UC Davis between 1948 and 1978, and a benefactor of the current Walnut Breeding Program. ‘Forde’s parents are UC61-25 for yield and size, and ‘Chico’ for yield. The cross was made in 1995.
Figure 1 Pedigrees of the New Varieties

Sexton
- UC90-31-10
  - Chandler
  - UC85-8

UC61-25
- Sharkey
- Marchetti

UC56-224
- Pedro
  - Payne
  - Conway Mayette

UC49-46
- UC53-57
- UC56-224
  - Sharkey
  - Marchetti

Chico
- Sharkey
- Marchetti

PI18256

Gillet
- UC95-22-26
  - UC76-80
    - Chandler
    - UC61-25
      - Sharkey
      - Marchetti
      - UC49-46
        - Payne
        - Hartley
        - Conway Mayette
        - PI18256
    - UC61-25
      - Sharkey
      - Marchetti
      - UC53-57
        - Payne
        - Conway Mayette
UC95-26-37

UC95-26-37

UC61-25

UC49-46

UC53-57

UC53-57

PI18256

Chico

Marchetti

Sharkey

Conway Mayette

Hartley

Payne

Forde
Figure 2. Traits of new varieties in comparison with Chandler