



Hazelnut Pollinizer Cultivars

'Gamma' (OSU589.028), 'Delta' (OSU510.041),
'Epsilon' (OSU669.073), 'Zeta' (OSU670.095)

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Four new eastern filbert blight (EFB) resistant cultivars, selected from crosses made by S.A. Mehlenbacher and D.C. Smith, were released as pollinizers in January 2002 by Oregon State University. These cultivars provide pollinizer options for the midseason through very late season female flower bloom of 'Lewis,' 'Clark,' and other varieties.

This publication outlines characteristics of each pollinizer cultivar, including incompatibility alleles, flowering and nut characteristics, and pest tolerance. The data presented in this publication were collected from the original seedling tree of each pollinizer cultivar, and these cultivars currently are being evaluated in replicated trials and commercial plantings. Therefore, we advise caution in using these genotypes as pollinizers. This publication will be revised as additional information is obtained. For more information on compatibility and time of bloom, see *Growing Hazelnuts in the Pacific Northwest*, EC 1219.

'Gamma' (OSU589.028)

Flowering characteristics

- Incompatibility alleles: S_2S_{10} (only S_{10} expressed in the pollen)
- Time of pollen shed: Midseason (about the same time as 'Daviana')
- Catkin density: Many catkins
- Duration of pollen shed: Short

Nut characteristics (Figure 2)

- Size: Slightly larger than 'Casina'
- Blanching: Poor removal of pellicle
- Maturity: Few days before 'Barcelona'

Pest tolerance

- Eastern filbert blight: Complete resistance from 'Gasaway'
- Kernel mold: Very low
- Big bud mite: Intermediate (similar to 'Casina')

Important note

This cultivar should not be used as the only pollinizer in a planting. It is a suitable pollinizer for 'Lewis' and 'Barcelona,' blooms too early for 'Clark,' and is incompatible with 'Casina.' The seedling tree growth was vigorous.

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'Delta' (OSU510.041)

Flowering characteristics

- Incompatibility alleles: S_1S_{15} (both expressed in the pollen)
- Time of pollen shed: Late midseason (about the same time as 'Hall's Giant')
- Catkin density: Many catkins
- Duration of pollen shed: Intermediate to long

Nut characteristics (Figure 3)

- Size: Slightly larger than 'Casina,' similar to 'Clark'
- Blanching: Partial (similar to 'Barcelona')
- Maturity: Few days after 'Barcelona'

Pest tolerance

- Eastern filbert blight: Complete resistance from 'Gasaway'
- Kernel mold: Low
- Big bud mite: Resistant

Important note

This cultivar is a suitable pollinizer for 'Lewis' and 'Casina,' overlaps with the early compatible bloom of 'Clark,' and is incompatible with 'Barcelona,' 'Ennis,' and 'Willamette.' The seedling tree had moderate vigor.

'Epsilon' (OSU669.073)

Flowering characteristics

- Incompatibility alleles: S_1S_4 (only S_1 expressed in the pollen)
- Time of pollen shed: Late (after 'Hall's Giant')
- Catkin density: Many catkins
- Duration of pollen shed: Intermediate to long

Nut characteristics (Figure 4)

- Size: Intermediate between 'Lewis' and 'Clark'
- Blanching: Poor removal of pellicle
- Maturity: Few days before 'Barcelona'

Pest tolerance

- Eastern filbert blight: Complete resistance from 'Zimmerman'
- Kernel mold: About 8 percent
- Big bud mite: Highly resistant

Important note

This cultivar is a suitable pollinizer for 'Clark' and 'Casina' and is incompatible with 'Barcelona,' 'Ennis,' and 'Willamette.' The seedling tree had low vigor.

'Zeta' (OSU670.095)

Flowering characteristics

- Incompatibility alleles: S_1S_1 (therefore S_1 is expressed in the pollen)
- Time of pollen shed: Late (after 'Hall's Giant')
- Catkin density: Moderate number of catkins
- Duration of pollen shed: Intermediate to long

Nut characteristics (Figure 5)

- Size: Slightly larger than 'Casina,' similar to 'Clark'
- Blanching: Partial (better than 'Barcelona')
- Maturity: Few days before 'Barcelona'

Pest tolerance

- Eastern filbert blight: Complete resistance from 'Zimmerman'
- Kernel mold: Low
- Big bud mite: Intermediate (similar to 'Casina')

Important note

This cultivar is a suitable pollinizer for 'Clark' and 'Casina' and is incompatible with 'Barcelona,' 'Ennis,' and 'Willamette.' May have potential as a main crop cultivar. The seedling tree was vigorous.

For more information

Growing Hazelnuts in the Pacific Northwest, EC 1219
(Oregon State University, revised July 2002). 48 pages

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Figure 1.—Raw and blanched kernels of 'Barcelona.'



Figure 2.—Raw and blanched kernels of 'Gamma.'



Figure 3.—Raw and blanched kernels of 'Delta.'



Figure 4.—Raw and blanched kernels of 'Epsilon.'



Figure 5.—Raw and blanched kernels of 'Zeta.'

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