

# HAZELNUT BREEDING PROGRAM



Hazelnuts, also known as filberts, are currently only produced commercially in the United States in the Willamette Valley of Oregon. However, research and breeding at Rutgers is changing this scenario. Hazelnuts, compared to other species, are a very low-input crop, needing very little to no supplemental irrigation, pesticide or fungicides. They can be grown on a diversity of soil types, including those that are less than ideal. Hazelnuts are widely adapted, and depending on the cultivar, can be very cold hardy. In regions such as New Jersey, the Mid-Atlantic and much of the fruit belt of the eastern U.S. and southern Canada, many hazelnuts would thrive. However, the presence of a disease called Eastern Filbert Blight (EFB) has made growing hazelnuts as a commercial venture in this region nearly impossible; that is, until only very recently. In addition to hazelnuts for nut production, Rutgers researchers are also developing a new line of disease resistant ornamental hazelnuts. These include plants with attractive purple leaves and bright fall color, as well as those with contorted and weeping branches. The fall color comes from our native hazelnut and the purple leaves from the European species. These plants also produce nuts, making them edible landscape plants.

<http://agproducts.rutgers.edu/hazelnuts/>

Varieties: *Please do not allow anyone to take cuttings from any of these plants.*

541.147: *Corylus americana* hybrid - *Corylus avellana* x *Corylus americana*. Second generation Hybrid between European hazelnut, *Corylus avellana*, and American hazelnut, *C. americana*, developed at Oregon State University. EFB resistant with high yields but a small-medium size nut. EFB free and productive at Rutgers for 12 years.

Jefferson: *Corylus avellana* 'Jefferson' a European hazelnut. Newest EFB-resistant release from the Oregon State Univ. breeding program (2009). Large nuts of high quality. Only tested for three years but looks very promising.

Theta: *Corylus avellana* 'Theta' a European hazelnut. Specific EFB-resistant pollenizer for Jefferson, medium size nuts. Will provide pollen for other plants. Only tested for three years but looks very promising.

Tonda di Giffoni: *Corylus avellana* 'Tonda di Giffoni' a European hazelnut. EFB tolerant (gets some disease but not much) Italian plant with excellent nuts (large and excellent kernel - this cultivar is one of the world standards for quality. Very productive in our plots for over 10 years, although EFB reduces yields, but we have immense disease pressure.

CRXR11P07 – is a Rutgers experimental selection with large nuts and EFB resistance. Advanced generation hybrid of *C. avellana* with *C. colurna* (Turkish tree hazel). Large, round kernels with thin shells. Has not been tested for yield other than original mother tree, which are high.