

Agronuts – Hazelnut Variety Catalog

OSU RESEARCH PROGRAM

Discover our complete selection of hazelnut varieties from the Oregon State University (OSU) research program. This catalog presents the key characteristics of each variety—productivity, kernel quality, disease resistance, and commercial uses—to help growers and agricultural advisors make the most suitable variety choices for their production goals.



Main Production Varieties

The four varieties below represent the elite of the OSU program. Selected for their exceptional performance in terms of yield, kernel quality, and disease resistance, they form the basis of modern commercial orchards. Each presents a distinct profile, allowing growers to optimize their system according to their agronomic and commercial priorities.

Yamhill

Record yield, compact tree, early harvest.
Ideal for high-density planting.

McDonald

Harvest 14 days before standard varieties, 52 % kernel-to-nut ratio.

Sacajawea

Maximum 4/4 rating for taste and aroma, nuts drop
10-15 days before standard period.

Tonda Pacifica

Kernel almost identical to Tonda Gentile Trilobata, 95% blanching ability after roasting.

Yamhill – Efficiency and High Density

Key Highlights

- **Record Productivity**
Yields 1,6 high as traditional varieties, offering unparalleled productive efficiency in the sector.
- **Compact Tree**
Size reduced to 50-60% of 'Barcelona', allowing for high-density plantings of up to 800 trees per hectare.
- **Industrial Use**
Kernel percentage of 48-49%, ideal for hazelnut paste production and industrial processing channels.

1,6×

Yield

Compared to traditional varieties

800

Trees/ha

Maximum planting density

49%

Kernel %

Industrial shelling yield

The Yamhill variety is a benchmark choice for producers focused on industrial channels. Its unique combination of vegetative compactness and high productivity helps maximize revenue per hectare while reducing management costs. Total resistance to Eastern Filbert Blight (EFB) also makes it a reliable long-term choice, without dependence on phytosanitary inputs.

McDonald & Sacajawea — Precocity and Taste Excellence



McDonald — A dual-purpose variety

McDonald stands out for its exceptionally early maturity and a concentrated nut drop period. This significant advantage helps optimize harvest logistics by avoiding autumn rains, thereby reducing losses and intervention costs. Its kernel yield is 52%, ensuring high profitability.

The internal quality of the nut is outstanding: very few defects, almost no mold, and a flavor considered excellent by industry professionals. The kernel size generally ranges from 13 to 15 mm.



Sacajawea — Flavor and Facilitated Harvest

Sacajawea holds a special place in the OSU program thanks to its maximum tasting score of 4/4 for both flavor and aroma. This variety is aimed at growers targeting premium markets and demanding chocolatiers. Its kernel yield of 50% is nearly identical to that of McDonald, combining outstanding sensory quality with processing efficiency. Harvest is also concentrated within a short period. Sacajawea represents the most advanced expression of the OSU program in terms of organoleptic quality. It is also the variety requiring the lowest chilling requirement for its development.

Tonda Pacifica – The Italian Gourmet Standard



☆ PREMIUM QUALITY

Quality comparable to Tonda Gentile delle Langhe

Tonda Pacifica (or simply Pacifica) is the flagship gastronomic variety of the OSU catalog. Its delicate flavor and crunchy texture place it on the same level as the famous Italian Tonda Gentile delle Langhe, one of the world's benchmarks for premium hazelnuts. It is intended for growers targeting specialty markets, artisan confectionery, and gastronomy.

Its exceptional 95% blanching rate after roasting exceeds Italian standards, representing a major technical advantage for processors. Tonda Pacifica therefore combines superior sensory quality with high processing efficiency.

Other Production Varieties and Dual Use

In addition to the flagship varieties, the OSU program offers three additional varieties with distinct profiles: Jefferson for dual shell/kernel use, PollyO for its vigor and tree health, and Dorris for its exceptional flavor. These varieties help diversify commercial outlets and adapt orchard composition to local market conditions.



Jefferson

Dual-purpose: Suitable for both the in-shell market (large nut size) and kernel processing. Resistant to bud mites. Upright tree habit with higher production efficiency than the 'Barcelona' variety. A versatile choice for farms looking to diversify their sales channels.



PollyO

Vigor and tree health: A vigorous tree with high yields of hazelnuts and medium-sized kernels that are very easy to blanch. Ideal for growers seeking robustness and long-term reliability.



Dorris

Remarkable flavor: Recognized for the exceptional aroma of its roasted kernels, appreciated by roasters and pastry chefs. Small, highly efficient tree, ideal for optimizing space in high-density plantings. An asset for artisanal and premium supply chains.

Key Performance Comparison

This table summarizes the most critical performance indicators for varietal selection. Kernel fill percentage and tree compactness are essential criteria for evaluating the potential profitability of each variety in a commercial context.

Variety	Kernel Outturn	Tree Size	Harvest Earliness	Main Use
Yamhill	49 %	Small	+ 15 days before	Industry / Paste
McDonald	52 %	Standard	+14 days before	Kernel / Fresh
Sacajawea	50 %	Standard	+10-15 days before	Premium / Gourmet
Tonda Pacifica	47 %	Standard	Standard	Gourmet / Roasting
Jefferson	43 %	Upright	Standard	Dual-purpose
Wepster	45 %	Standard	Early	Chocolate Industry
PollyO	48 %	Vigorous	Standard	Versatile
Dorris	43 %	Small	Standard	Artisanal / Premium

Pollinator Varieties – Ensuring Maximum Yield

Why pollinators are essential

The hazelnut is a species that requires cross-pollination: a variety cannot fertilize itself. To ensure maximum fruit set and consistent yields, it is essential to include compatible pollinizer varieties in every commercial orchard. These varieties must cover the entire period of receptivity of the female flowers, which can extend over several weeks depending on local climatic conditions.

The choice of pollinizers must be aligned with the main planted varieties, taking into account the overlap between male (catkins) and female flowering periods. Poor matching of varieties can significantly reduce yields, even in trees with excellent vegetative health.

Some main OSU varieties may also cross-pollinate with each other.

Pollinator varieties from the OSU program

Eta & Theta

Late pollinators essential for varieties like Yamhill. Their staggered flowering ensures coverage of the end of the receptive period.

York & Felix

Complete the pollination calendar to **ensure maximum fruit set** at the beginning and middle of the season. Recommended for mixed multi-varietal orchards.

📌 **Practical advice:** Integrate at least 10-15% pollinators in each planting block. Alternate rows of pollinators with main varieties to optimize pollen dispersion.



Agronuts – Our Greenhouses – Availability and Ordering

All the varieties presented in this catalog are available in our greenhouses, originating directly from the OSU research program. Our plants are produced under controlled conditions, guaranteeing their sanitary and varietal compliance. Each plant benefits from rigorous monitoring from production to delivery, ensuring the quality and authenticity of the plant material.

Choosing the right varieties today means building the profitability of your orchard for the next 30 years. Our team is here to help you make the best choices.



Certification and Traceability

All our plants are certified compliant with the OSU program standards. Complete traceability from the mother plant to delivery, guaranteeing varietal authenticity and an impeccable sanitary status.



Ordering and Lead Times

Orders are accepted throughout the year for scheduled delivery. We recommend anticipating large orders at least 18 months in advance to ensure the availability of the most in-demand varieties.



Advice and Support

Our team is available to assist you in varietal selection, developing the planting plan, and implementing the appropriate pollinators for your pedoclimatic context.

For further information or to place plant orders, please contact us.

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