Tri-State Potato Program’s Successes Add Up, With Nine New Potatoes in Just 15 Years

When your goal is to breed potatoes that will delight consumers, processors, and producers alike, 15 years isn’t a lot of time. But 15 years is what it took the Tri-State Potato Variety Development Program to release nine new potatoes slated to keep Pacific Northwest growers competitive.

Steve Love considers Gemchip, Frontier Russet, Ranger Russet, Century Russet, Umatilla Russet, Russet Legend, IdaRose, Bannock Russet, and Gem Russet just the tip of the potato pile. Through the efforts of the University of Idaho, Oregon State University, Washington State University and the USDA Agricultural Research Service, those new varieties will be followed by other spuds that are less expensive to grow, more efficient to process, and even better—and more nutritious—to eat.

Love, the University of Idaho’s Aberdeen-based coordinator of the Tri-State program, says research targets include potatoes that:

- mature early and offer excellent fresh market and processing quality;
- resist late blight, root knot nematodes, corky ringspot, plant viruses, and other current and emerging pests;
- withstand hollow heart, heat necrosis, bruising, cracking, or discoloring in storage;
- have higher ratios of solids to water;
- are richer in vitamin C.

That’s one of the advantages of a regional program that Love calls the most comprehensive in North America. “We can operate on a large-enough scale to address any problem—and to address it quickly. We have a much greater possibility of successfully producing a variety that will give the industry what it needs.”

Although it encompasses three land-grant universities and a federal agency, the Tri-State program depends on participating growers to fulfill its mission. These grower-cooperators multiply seed and launch the new varieties into commercial channels. By the time a new potato is released, Tri-State breeders and grower-cooperators have learned what it needs in the way of planting, fertilizing, pest management, and storage. That’s essential information for commercial growers who can’t afford expensive learning curves, but simply want to bring out the best in a new variety for the least possible cost.

Seed grower Ritchey Toevs, who has evaluated 12 of Tri-State’s new and future releases, views himself as “playing a part in a loop from breeding crosses to consumer acceptance.” His part includes persuading commercial producers, processors and consumers to try the new varieties.

“Lower cost per unit and less impact on the environment is what sells them,” Toevs says.

At the J. R. Simplot Co., Glenn Vogt credits two of Tri-State’s new varieties with helping keep the firm’s Caldwell plant operating. Umatilla Russet and Ranger Russet, which resist fry-darkening “sugar-ends” even in the hottest Treasure Valley summers, are “definitely proving their usefulness to the industry,” he says, “and there are others coming along that are looking very exciting.”

Indeed, University of Idaho economists say the program adds $14 in value for every $1 it costs. “Without a doubt, new varieties are our hope for the future,” says Vogt.

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