

Summer Fruits From ARS Research

A delicious, gourmet peach and a trio of plump, tasty plums are the newest summer fruits for you from ARS tree-fruit breeders in California. Each new fruit fits a distinct niche in the early-summer through early-fall fruit season, adding to your choices among luscious and healthful fresh produce.

The exotic peach and tempting plums are the result of more than a decade of plant breeding and testing by geneticist David W. Ramming and colleagues with the ARS Postharvest Quality and Genetics Research Unit in Parlier.

Galaxy –The “Bagel” Peach!

Perhaps the most surprising new entry among the delectable new fruits from the Parlier research orchards is a specialty peach called Galaxy. It’s known as a “flat,” “saucer,” or “doughnut-type” peach because of its round, squat appearance. Fresh-fruit aficionados may know this kind of peach as a “peento,” derived from the original Chinese “Pan Tao.”

“But Galaxy could really be thought of as a ‘bagel’ peach, because of its impressive size,” comments Ramming. “It’s about 3 inches across. And it’s hefty. Galaxy peaches each weigh about a third of a pound.”

Galaxy has light-cream skin accented with an attractive red blush and features the traditional, delicate aroma of white-fleshed peaches. Inside, the flesh has a sweet taste and the pleasantly firm texture that growers describe as “melting.”

Galaxy ripens at the same time of year—the third to fourth week of June—as a popular peento peach called Saturn. But Galaxy is about 25 percent bigger and more

Treasury of Peaches and Plums Preserved

America’s most famous breeder of peaches and plums, Luther Burbank, chose a valley north of San Francisco Bay to establish his renowned research orchards. Today, about 50 miles east of Burbank’s farm, the Agricultural Research Service manages America’s official collection of these fruits.

PEGGY GREB (K10775-1)



Horticulturist Clay Weeks examines the Japanese-type plum Sierra, introduced by Armstrong Nurseries, Inc., in 1955.

Known as the National Clonal Germplasm Repository for Fruit and Nut Crops and headquartered in Davis, California, it shelters a publicly available assortment of both common and uncommon peaches and plums—including several developed by Burbank.

The repository’s plantings at its Winters, California, orchard include more than 700 peach trees, most of which are varieties of *Prunus persica*. Among them are historically important varieties such as Shanghai and J.H. Hale, which are in the parentage of nearly every U.S.-grown peach you’ve ever eaten.

Other distinctive peaches include a white-fleshed cling peach from Korea named Yumyeong and the red-fleshed Sanguine de Tardiff from France. Says Clay Weeks, horticulturist at the repository, “Of course, we also have the unique peento flat peaches from China and ARS’s new Galaxy flat peach bred



Owen T plum, the largest of three new plums from ARS.

PEGGY GREB (K10763-1)

by David Ramming at Parlier.” (See above story.)

There are more, including peaches from Brazil, Canada, Guatemala, Italy, Mexico, New Zealand, Pakistan, Poland, South Africa, and the former Soviet Union, according to Weeks. “And we have peaches from throughout the United States, including nectarines, which are



technically peaches without fuzz.”

The collection continues to expand. For example, members of the California Rare Fruit Growers donate antique and heirloom varieties. Other peaches are being added from the botanical bounty collected by researcher Ramming and colleague David Bryne, a horticulturist with the Texas Agricultural Experiment

than 50 percent heavier than Saturn.

Galaxy’s lineage includes a nectarine developed by USDA researchers and a doughnut-type peach from Rutgers University. In 1994, Ramming hybridized, or crossed, the parent peaches that would yield Galaxy. The following year he singled out Galaxy for further study in his research orchards at Parlier and those of the neighboring Kearney Agricultural Center.

Ramming offered Galaxy to growers and breeders in 2003 and so far has provided more than 33,000 buds for grafting to familiar rootstocks. “All those budded trees are already sold to growers,” Ramming reports.

Galaxy is well suited not only for commercial orchards but also for backyard gardens. Like most peaches, it’s self-pollinating and so doesn’t require proximity to other peach trees. Though not yet tested outside California, Galaxy might do well in the climate of southern peach-growing states such as Georgia and South Carolina.

As Ramming says of this scrumptious new peach, “Everyone who wants to grow peento peaches should try it.”

Superb New Plums

Each of the three new plums, Black Splendor, Owen T, and John W, ripens in a different season.

“That’s deliberate,” explains Ramming. “We wanted to provide U.S. growers with new plum varieties that they could market from earlier in the summer through later in the fall. We also wanted the trees to produce big, reliable harvests of large, high-quality fruit.

Station, during their expedition to China in 2000.

The collection of plums includes 750 orchard trees. Most are either the European plum, *Prunus domestica*, produced as a fresh fruit or dried into prunes; or the Japanese plum, *P. salicina*, typically sold in this country as a dessert plum. In all, the collection includes 18 species and numerous hybrids.

Among the most unusual: the squat, green-apple-flavored *P. simonii* from Asia; Europe’s *P. spinosa*—of sloe gin fame; and the North American *P. hortulana*, a stately ornamental tree.

Also distinctive: South Africa’s Laetitia, a *P. salicina* variety that bears large fruit, and Sans Noay, a stoneless French *P. domestica* plum commonly dried into prunes. Burbank introduced this pit-free plum into the United States and bred the stoneless trait into several of his own plums.

“Public and private breeders walk

through this orchard to choose varieties they can incorporate into their breeding programs,” says Weeks. And researchers who are unraveling the genetic mysteries of the world’s plums request leaf samples from the repository.

“Here in Davis, we’re conducting our own analyses of plum DNA, as well,” says acting curator Mallikarjuna Aradhya. “It’s the most accurate way to

PEGGY GREB (K10781-1)



Wickson, a Japanese plum released by Luther Burbank and named after E.J. Wickson, friend and dean of agriculture at the University of California, Berkeley.

“These new plum trees do all that.”

Black Splendor is big, sweet, and juicy. It has black skin with mahogany-colored shoulders and beet-red flesh. “People who have sampled this plum tell us they especially like it in fresh-fruit salads because of its rich color.

“This plum ripens in early June and is earlier—and bigger—than the well-known Santa Rosa plum,” says Ramming. “Black Splendor may command premium, early-season prices, but once you bite into it you’ll know it’s worth your money.”

Owen T and John W Plums Honor Colleagues

“All three of our new plums are large, but Owen T plums are the largest,” says Ramming. “This plum averages nearly 3 inches across and can weigh close to a half-pound.” Owen T plums have blue-black skin, with some touches of purple, and light-yellow flesh that Ramming describes as “crisp and sweet.”

Once growers start producing this plum, “you can expect to see it at your supermarket in late June through early July,” he says. Ramming named it for Owen Tanner, who was a technician with the Postharvest Quality and Genetics Research Unit for more than 30 years.

You can enjoy the latest-ripening of the three new plums, John W, from late August through early September. This good-sized plum has purple skin dusted with light-tan speckles and

PEGGY GREB (K10766-4)



Galaxy, a hefty new peento peach developed by ARS.

delicious, light-orange flesh that’s smooth and fine textured.

Ramming named this plum for ARS Hall of Fame honoree John H. Weinberger. A long-time USDA tree-fruit and grape breeder, Weinberger developed the classic Flame Seedless, America’s most important commercial red seedless grape.

“We’ve worked with these three new plum varieties in the research orchards at Kearney Agricultural Center here in Parlier, and we’ve collaborated with growers who’ve planted them in their orchards for us to study,” Ramming notes.

“We’ve received requests from more than 200 growers, researchers, and nursery managers for more than 1,200

dormant cuttings and 50,000 buds. The big taste and big yields of these new plums have impressed growers.”

Shoppers, too, will be pleased with the new plums and peach from the Parlier team.—By **Marcia Wood**, ARS.

This research is part of Plant, Microbial, and Insect Genetic Resources, Genomics, and Genetic Improvement, an ARS National Program (#301) described on the World Wide Web at www.nps.ars.usda.gov.

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identify and catalog all the plums in the collection.”

Burbank would be proud.—By **Marcia Wood**, ARS.

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PEGGY GREB (K10780-1)



Prunus spinosa from a seedlot received from Switzerland. These plums, also called blackthorns or sloes, are used in making sloe gin.