



(Right): GET THE PICTURE? — Auburn horticulture professor and veteran Alabama Ag Experiment Station researcher Billy Dozier takes close-up shots of a young burr-loaded “AU Buck III” Chinese chestnut tree growing in a research orchard in Camp Hill. Dozier took the photo about 10 years ago when long-time horticulture professor and chestnut research leader Joe Norton retired and Dozier took over the long-term project.

# Wildlife-Attracting Chinese Chestnuts

## Debut on Market This Fall

**A**n Auburn University research project that began more than 75 years ago has yielded six new Chinese chestnut varieties and two dwarf cultivars that have been selectively bred to drop an abundance of high-quality nuts in succession from late August through November, providing a continuous high-energy food source for wildlife throughout the fall.

When the new cultivated varieties hit the market this fall, they will come as package deals. Four of them — *AU Buck I*, *AU Buck II*, *AU Buck III*, and *AU Buck IV* — produce large crops of medium- to large-sized nuts and will be marketed together as the Chinese chestnut deer package. The other four — *Gobbler I*, *Gobbler II*, and the two dwarfs (or segoins): *AU Premier* and *AU Encore* — bear smaller chestnuts that are ideal for wild turkey and together will comprise the “turkey package.”

“These cultivars have been developed for wildlife purposes,” veteran Auburn horticulture professor and researcher Billy



just prior to nut drop, and then collecting the nuts from those above-ground tarps every day until the last nuts fell.

The eight cultivars are third-generation descendents of Chinese chestnuts that U.S. Department of Agriculture scientists and Auburn horticulture personnel gathered in China's Hubei province in the early 1930s and planted on a horticulture research farm on the Auburn campus for breeding research.

The breeding project was motivated in large part by a fungus — specifically, a ferocious chestnut blight fungus that had accidentally been imported from Asia in 1900 and, by 1940, had destroyed the 4 billion American chestnut trees that had dominated U.S. forests for centuries. Chinese chestnuts, however, were immune to the disease, and thus became a subject of interest to the research world. Most of the research

Dozier says. “They have staggered chestnut-drop dates, so if you plant all the trees in a package together in a group, you’ll have a constant supply of chestnuts on the ground all the way from about the end of August on up till the end of November every year.”

Auburn’s Office of Technology Transfer, which serves as the link between Auburn researchers and the commercial marketplace, has licensed the patented cultivars to The Wildlife Group, and that Macon County nursery will introduce limited supplies of both the deer and the turkey Chinese chestnut packages to the market later this year.

Though each of the cultivars has been developed for its specific desirable traits, all share several important characteristics that make them an excellent option for landowners looking to enhance wildlife habitat on their property. They are prolific, highly adaptable, blight-resistant trees that grow quickly and produce large crops year after year. Plus, they need little to no maintenance.

“They’re easy to grow,” Dozier says. “We don’t use and never have used fungicides or insecticides on any of our chestnut trees, and through all these decades, we haven’t found a disease or pest yet that bothers them.”

With the exception of AU Premier and AU Encore, the new varieties grow to heights of 30 to 40 feet. As sequin cultivars, the Premier and Encore average only 15 to 19 feet in height. The chestnuts produced by the different trees vary in size, but Dozier describes the taste of all the cultivars as “excellent, very sweet.”

Wildlife apparently agree.

“We couldn’t get accurate yields on these cultivars because of extremely heavy wildlife feeding, so we rated the trees for crop load instead,” he says. They did so by installing 6-foot-tall chicken wire cages around individual trees, placing tarps beneath the canopies

focused on breeding the Chinese species’ blight-resistance gene into American chestnuts, but at Auburn, the goal was to develop new, improved varieties of the foreign tree.

From the initial planting at Auburn, researchers selected about 2,000 seedlings from the top-performing female trees and, using controlled mass pollination techniques, produced the second generation of Chinese chestnuts at the Alabama Agricultural Experiment Station’s Piedmont Research Unit in Camp Hill. Researchers released three cultivars from that generation in the early 1980s: *AU Cropper*, *AU Leader*, and *AU Homestead*. In 1990, the best seedlings from those three varieties were chosen, and scientists established the third generation via the mass pollination method. The newly patented “wildlife” cultivars, then, all are offspring of Cropper, Leader, or Homestead.

Wayne Bassett of The Wildlife Group said the two four-cultivar packages will be available later this year, though supplies may be limited. Each package will consist of four individually-grafted seedlings in three-gallon containers, standing from 12 to 24 inches tall. The trees grow vigorously and should be producing nuts within two to three years, he said.

Though bred for wildlife purposes, the nuts that the new cultivars produce are excellent for human consumption, too. Dozier says, however, that he will start the patent-application process soon on another cultivar that produces exceptional chestnuts. Selling the nuts fresh from the farm or to local grocers and restaurants could provide a new source of income for growers. 🌱

*PREPARING TO LAND — “AU Buck II” Chinese chestnuts are ready to drop from the spiny burs in which they developed. The Buck IIs are good-sized nuts that are too large for turkeys but perfect for deer. They are part of a four-tree package Auburn researchers have developed to provide wildlife a constant supply of chestnuts throughout the fall.*

