Matthew Weaver/Capital Press File

Washington State University professor Michael Neff overlooks the university's new grass farm Sept. 4, 2019. Neff's breeding program is developing a no-burn Kentucky bluegrass, long in the making.

No-burn Kentucky bluegrass on the way from WSU

By MATTHEW WEAVER
Capital Press

A no-burn Kentucky bluegrass variety is in the works at Washington State University.

The university is applying for plant variety protection for the bluegrass, called Matchless, said Michael Neff, WSU grass breeder. After that step, it will begin licensing the seed.

He expects WSU to release Matchless in the near future, he said.

Neff spoke during the recent online Spokane Ag Show.

The variety has been 20 years in the making, beginning with the work of researchers William Johnston and R.C. Johnson, who developed a Kentucky bluegrass that didn't need field burning after harvest.

Typically, Kentucky bluegrass fields are burned after harvest, Neff said. The burning removes excess thatch to increase yield the following year and help control pests and weeds.

"This was a way to keep the fields in production for many years," Neff said. "These are perennial grasses. Once you have the field established, you can go in and harvest every year until the harvest starts to drop down."

But burning was banned in the state because the heavy smoke raised concerns about health and the visibility on nearby roads.

Without burning, growers haven't been able to keep the field in production for as many years, Neff said. They wound up with shorter rotations, less than three years instead of four or five years, which led to a lower economic return.

"There's a trade-off," he said. "If you can't burn, what you have to do is basically leave the field after it's been harvested with a thatch or even go in and mow or pull off that hay and thatch."

Taking perennial grass fields out of production can impact soil and water quality due to erosion, topsoil loss and potential pesticide runoff, Neff said.

Researchers Johnston and Johnson wanted to identify a Kentucky bluegrass germplasm that would have good turfgrass quality and seed yield under no-burn seed production, Neff said. They narrowed more than 600 possible options in the USDA's seed collection down to 225 in field tests, then down to 45, then down to 10.

Neff's program is also working on seed germination in Kentucky bluegrass and western wheatgrass, among other projects.

Discovery could expand peach resilience and growing region

By SIERRA DAWN MCCLAIN
Capital Press

ITHACA, N.Y. — New research could lead to the development of peach varieties that can better handle climate stresses and extreme weather conditions, potentially increasing yields and widening the growing region for peaches.

Zhangjun Fei

Scientists at Boyce Thompson Institute, an independent research institute in New York state, have identified genes in wild peaches that could help breeders develop domesticated peach varieties more tolerant of environmental extremes, including cold, drought and ultraviolet radiation at high altitudes.

The researchers published their findings in Genome Research, a scientific journal, Tuesday.

"This study can provide a lot of information about how to do targeted breeding to create more resilient peaches that can grow in specific environments," said Zhangjun Fei, lead researcher, a faculty member at the Boyce Thompson Institute and associate professor at Cornell University.

The new genetic insights, Fei said, could help growers across the Western U.S.

With the new information, breeders may be able to develop cultivars that can better handle drought, which would be useful for growers in California, the No. 1 state in peach production.

Yong Li

Prunus mira, or Tibetan peach, native to the foothills of the Himalayas and the Tibetan plateau.

According to the Agricultural Marketing Resource Center, in 2017, California supplied nearly 56% of the U.S. fresh peach crop and more than 96% of the nation's peaches for processing.

Breeders may also be able to develop varieties adapted to frost and cold snaps, which could prove useful to growers in the Pacific Northwest, where the peach industry is expanding.

According to USDA's 2020 report, Washington state peach production increased 12% from the previous year, up to 12,500 tons — the fifth largest production of any state. Idaho's crop is less than half that size, and Oregon's peach crop is even smaller, but according to Oregon State University, peaches in Oregon remain one of the most popular summer fruits at roadside stands and U-pick orchards.

Fei said if breeders create varieties more adapted to cold climates, it could potentially expand the peach growing region and resilience in the Northwest.

During this study, Fei and his co-researchers studied wild peaches to better understand how peach trees adapt to different climates and weather conditions.

The researchers gathered 263 peach wild relatives and landraces, or local cultivars, across seven distinct growing regions in China, where peaches originated.

In each region of China — ranging from lowlands to high altitudes and from warm to cold climates — wild peaches have adapted to their environments.

Fei said many of the domesticated peach's adaption genes have been lost through the generations as people have bred the plant to focus on flavor, sweetness and other traits. Going back to the peach's ancestors, he said, allows him to tap into lost genes.

One example is that wild peach trees growing at high altitudes closer to the sun have developed specially colored branches and new shoots to protect them from UV light damage. Fei's team was able to identify the genes responsible for this, which will help breeders who wish to create peach varieties better suited to high altitudes.

Breeders, Fei said, can use the information either in traditional breeding or with gene editing technology.

Idaho Senate committee kills driving-card bill for non-citizens

By BRAD CARLSON
Capital Press

The Idaho Senate Transportation Committee March 4 killed a driving-authorization card proposal that many in the agriculture and business communities supported.

Undocumented workers are among those who would have qualified for driving cards under Senate Bill 1132, which proposed to make the annually renewable cards available to anyone 16 or older who could verify identity, prove he or she lives in the state and pass a test.

The bill aimed in part to ensure more drivers have safety training and insurance, its purpose statement said. Cards would have had a distinguishable appearance and clear statements that they could not be used for voting, buying firearms or exercising any rights or privileges reserved for citizens.

The Idaho Dairymen's Association and the Idaho Association of Commerce and Industry were among many business groups that either testified in favor of SB 1132 at the hearing, or earlier in writing, as benefiting the larger population including an established part of the workforce. Several citizens and nonprofits also expressed support.

Jeff Neumeyer, executive vice president and general counsel with Meridian-based United Heritage Insurance, testified in favor of the bill as a means of reducing accident frequency and severity.

An Idaho Office of Performance Evaluations report said accidents involving unlicensed drivers are three times deadlier and result in an average property-damage claim $22,000 higher, and unlicensed drivers are 9.5 times more likely to flee a fatal accident.

Sixteen states offer similar driver-authorization cards.

Idaho Dairymen's Association CEO Rick Naerebout told Capital Press a driving-authorization card program would benefit more of the industry's workers, many of whom already are driving to and from work. It would increase safety, though not necessarily labor availability.

About half the agricultural workforce is in the country without legal status, "and it seems providing a driving-authorization card shouldn't be a step too far in recognizing the federal government has not addressed our broken immigration system for decades and states are left with a very difficult situation," he said. "States have authority to do this, and it would be helpful for everybody.

"These individuals are in our country and they are part of our communities," Naerebout said.

The Idaho Sheriffs Association opposed SB 1132 as potentially forcing counties to issue a legal document — however limited in scope — to someone who cannot or does not choose to prove legal status. Other concerns included increased administrative burden without a meaningful decrease in vehicle-related incidents to which law enforcement respond.

Several committee members also expressed concerns, from potential legal and technical issues to a hesitation to get involved in federal immigration policy.

"It does warrant a really thorough look. … It does impact literally tens of thousands of people," said committee member and Senate President Pro-Tem Chuck Winder, R-Boise.

He said he would support establishment of an interim committee to study the issue between legislative sessions.

The committee voted down a motion to send SB 1132 to the full Senate with no recommendation. The committee instead approved a motion to hold the bill.