

Bring on the blaze orange



Tips from the Posse

By Mark Rackay

There was a time when a hunting coat had to be red plaid. Deer hunters, of days gone by, wore red buffalo plaid Mackinaw coats. These jackets were quiet and made from wool, which made them incredibly warm, dense, and water-repellent. Red, as it turns out, is an ideal color for hunting. To a deer, red looks green.

Introduced in 1850 by the Woolrich Woolen Mills, red and black Buffalo plaid has been worn religiously by hunters and frontiersmen. In the 1950's, people began looking for a better color to make more hunters visible and thereby, keep them safe.

Nowadays, hunters wear hunter orange or pink. When you look at a distant hillside, it looks like a bunch of people wearing pumpkin suits, with a few doses of pink Pepto Bismol running around. Good thing hunting season is near Halloween.

Daylight fluorescent colors, reflect light, instead of being charged by it, so no glow in the dark phosphorescent will work the same way. The simple test is to see if the color will reflect the garment color back to your hand in the direct sunlight, hence the name "blaze orange."

Fluorescent colors reflect between 200 and 300 percent of its color by converting short color wavelengths



The columnist and his friend, Billy Morgan, display the latest in high fashion, donning their blaze orange pumpkin suits. (Mark Rackay/Special to the MDP)

into longer wavelengths. Standard colors only reflect a maximum of 90 percent of a color present in the spectrum

Originally, a study in California in 1956, began to push for a non-fluorescent yellow for the hunting community. The yellow color was brought to Ralph "Jack" Woolner in New Hampshire. Jack worked for the Massachusetts Division of Fish and Game, and did not feel the yellow would work, and began the Fort Devens experiment.

The Fort Devens study was to determine which color best stood out in a variety of field conditions. The study used 1,100 soldiers from the Army's Strategic Army Corps, including 9% who had some type of color deficient vision. They studied blaze orange, fire orange, neon red and arc yellow.

The tests took place from

October 1959, through January 1960. The soldiers took part in 3 tests, in winter conditions, and hunting season foliage, in midday, evening, early light, and at distances from 25 to 100 yards. The reaction test asked soldiers to shoot popup targets, but only white ones, within 4 seconds or less when the popup appeared.

Blaze orange won hands down. It was the only color never confused to be any other color by any soldier, including those with at least some color blindness. Second place was neon red, followed by fire orange, and arc yellow was last.

I would have thought the yellow would have scored better, until I learned the human eye cannot register yellow through the center of the eye. Take a small piece of yellow and tack it to a wall. Back off about 40 feet, and the yellow will appear white. The fear was

a hunter wearing a yellow hat could be mistaken for a deer's flagging white tail.

A bonus to the blaze orange garments for hunters is that deer can't see it. A deer has dichromatic vision, meaning they only see shades of blue, purple, and green. Only short and medium wavelengths of light may be seen.

Humans, on the other hand, have trichromatic vision, which adds long wavelength light and a sensitivity to red and orange. Without this third photoreceptor, the deer can't see orange, but we can. To a deer, the orange comes across as a pale yellow. Blue is a color deer can see very well, so a hunter would be smart to ditch the blue jeans.

New blaze orange clothing sometimes has ultraviolet enhancements and brighteners from the factory. This makes the colors really pop to the human

eye, but it can also appear blue enhanced to deer, and may even appear as a glow to the deer's eye. A good tip is to wash your new blaze vest a couple times in the laundry before hitting the field with it, removing some of the enhancers.

I have hunted big game for over 50 years wearing the blaze orange colors. Many times, I have had deer or elk walk up to me, or pass closely by, without seeing the colors. As long as the wind is in your face, they won't detect your scent.

What deer, elk, pronghorn, and most big game do see well, is movement. Consider that a deer has a field of vision that covers 300 degrees, compared to a human eyes that cover only 180 degrees. A deer has a horizontal visual streak. Their pupils are not round like ours. They are horizontal and have a wide band that

allows them to see more detail. This is how deer can detect threats along a horizontal plane, which is where predators attack them.

There are 42 states that have a blaze orange requirement. The remaining eight states do not require blaze orange, but strongly encourage its use. Some states are now accepting hunter pink.

In Colorado, hunters must wear 500 square inches of solid fluorescent orange or pink material, and a hat of fluorescent orange or pink, visible from all angles, while hunting deer, elk, pronghorn, moose, and bear with any firearms license. This includes muzzleloader hunters, and archery hunters who hunt during rifle seasons. Camouflage orange or pink is not legal in Colorado. Mesh blaze clothing is legal, but not recommended.

While hunting is still one of the safest sports around, it is a good idea to be seen when afield. Non-hunters, who take to the woods during the hunting seasons, should also wear blaze hunting clothing. Not only does it make them more visible for safety reasons, but they also get to take part in the pumpkin suits with the rest of us.

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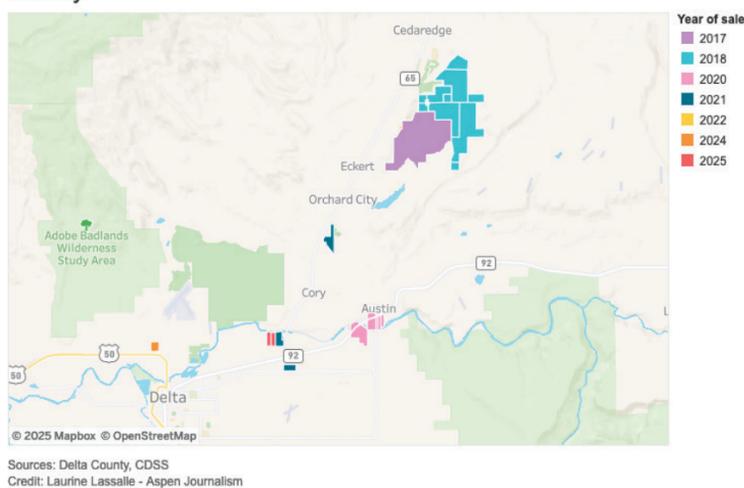
"We want action," Wal-dvogle said. "And I think the way I define action is for [lawmakers] to move forward in developing a program in order to really catalyze our communities into these discussions. To really develop all the sideboards necessary to have a program is going to take a longer time frame."

Western States Ranches

Conscience Bay owns about 3,800 acres on parcels scattered throughout Delta County, 3,000 of which the company says are irrigated. About 3,200 of these total acres are clustered in Harts Basin near Eckert, making up the headquarters of the company's reaching operation known as Western States Ranches. The ranch participated in the SCPP in 2024, with water to some fields shut off June 1 and others July 1. The ranch saved about 550 acre-feet, or 7% of its water, according to ranch managers.

Ranch representatives see participation in these early voluntary conservation programs as a way to have some control over their operations should water cuts become mandatory in the future. They say they are interested in innovative ways to adapt to water scarcity, and they partnered with Colorado State University scientists to study the effects on forage crops of taking

Conscience Bay Company's land acquisition since 2017 in Delta County



irrigation off their fields that were enrolled in SCPP in 2024.

"We wanted to figure out how this is going to affect us, and if we are required to do this in the future, we want to have the knowledge to make good decisions," said Mike Higuera, agricultural operations manager of Western States Ranches. "We assume that we are going to have to conserve water in this game."

Western States Ranches hosted an August field day in Eckert with the Western Landowners Alliance for other local farmers and ranchers to learn about drought-resilient ranching and share the findings from CSU researchers.

The ranch's participation in SCPP has resurrected fears that the owners, who began purchasing the Delta County properties in 2017, are speculating

— buying up land for its senior water rights and hoarding them for a future profit. With a water-conservation program in the Upper Basin all but guaranteed, some worry that Western States Ranches could be looking to profit off sending their water downstream.

The question came up at the August field day when a Paonia-area rancher said he had heard the ranch owners were speculators. Conscience Bay representatives have always denied that accusation.

"I can tell you there are a lot better ways to make money," Higuera replied.

According to SCPP documents, the ranch was paid \$278,372 for their water in 2024. Higuera said that amounted to about 10% of their revenue last year, with cattle sales making up the other 90%.

Colorado in recent

years has tried to tackle the thorny issues of how to fairly roll out a conservation program while prohibiting speculation. Defining what speculation is and who is a speculator is slippery and hinges on determining the water rights purchaser's intent — a nearly impossible thing to know or police with 100% certainty. The bottom line of the state's existing anti-speculation policy is that water-rights owners must put that water to beneficial use.

Ultimately, a 2021 workgroup failed to find consensus about ways to strengthen protections against speculation and a drought task force failed to provide recommendations about conserved consumptive programs for lawmakers, underscoring the difficulty of protecting the state's water without infringing on private

property rights. Some agricultural producers balked at laws that could restrict their ability to make money by selling their land and associated water rights.

At the heart of speculation concerns is the fear of large-scale, permanent dry-up of agricultural lands. Mueller has long cautioned that conservation programs, if not done carefully, could disproportionately impact rural agricultural communities. Although SCPP was open to all water-use sectors, all of Colorado's participants in SCPP in 2023 and 2024 were from Western Slope agriculture.

"Any program that we have must be designed for our state's best ability to support the longevity of agriculture and the vitality of our communities, and we've got to be thoughtful and precise," Mueller said.

Paying for programs

Another big question about Upper Basin conservation remains: How will it be paid for?

SCPP in 2023 and 2024 was funded with money from the federal Inflation Reduction Act. The bill that could have authorized SCPP again in 2025 is still stalled in the House. Over 2023 and 2024, the program doled out about \$45 million to water users in the Upper Basin and saved about 101,000 acre-feet.

Without overhauling the West's system of water rights, voluntary, temporary and compensated

conservation programs are one of the only carrots to entice agricultural water users — who account for the majority of water use in the Colorado River Basin — to cut back. But they are expensive, and it's unclear how future long-term conservation programs would be funded.

Colorado's entire congressional delegation in early August sent a bipartisan letter to federal water managers, in an effort to shake loose \$140 million in funding that was promised for projects addressing drought on the Western Slope in the final days of the Biden administration and then frozen by the Trump administration.

U.S. Sen. Michael Bennet, D-Colorado, addressed the question at a Colorado Water Congress meeting in Steamboat Springs in August.

"We're now not going to have a great federal partner for a while, I'm afraid, and we're going to have to figure out how to rely on each other and do it in more imaginative ways than maybe we have in the past," Bennet said.

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