The Scions of McElmo Canyon

story by JASON VAUGHN

Martha and Dusty Teal stroll through their T Lazy T Orchard, near Dolores. The orchard, planted in the 1930s, is one of about 200 historic orchards spread out across Montezuma County.

Chris Amundson (both)

Fruit sleuths race against time to save missing Montezuma County apples

THERE ARE NEVER any guarantees in the orchard business. In some years a late frost can wipe out an entire orchard before it even blooms. Or it can be too wet, or too dry, or there's a glut in the apple market and orchard owners are left with a harvest they can't sell.

This year, though, it's grasshoppers. Millions of them, gnawing their way across McElmo Canyon in southwest Colorado's Montezuma County.

"The grasshoppers are bad this year," Jude Schuenemeyer said, brushing his foot through a lump of grass and weeds, sending the tiny bugs shooting out in all directions like sparks from a fire. The combination of a mild winter and a dry spring has made McElmo Canyon ground zero for hordes of grasshoppers. And, Schuenemeyer added ruefully, the only factory that made a safe and effective treatment recently burned to the ground. He's had to keep the majority of his young trees in the relative protection of his greenhouse until they're ready to be sold or given away to community groups and research programs.

"It's all cyclical," Schuenemeyer said of the grasshoppers. The same thing could be said about the apples of Montezuma County. It's all cyclical, and now, after a long absence, they're slowly coming back.

For some apple varieties, though, the cycle is running out, and they could soon face extinction – but not if Jude and Addie Schuenemeyer and the Montezuma Orchard Restoration Project have anything to say about it.

JUDE SCHUENEMEYER IS a Denver native who worked for years as a paramedic around Leadville. Addie was a National Park Service brat who grew up at parks across the West, including Mesa Verde National Park, where her mother was an archaeologist. The couple met there years later while working as "hotshots," or wildland firefighters, for the National Park Service in the mid-1990s.

After fighting a series of major fires in the park, Addie and Jude made a career change doing something completely new: They took over an old nursery in nearby Cortez, growing fruit trees.

"We wanted to grow trees instead of cut them down or burn them down," Jude said.

The couple learned the how-tos of horticulture, including tree grafting, a skill that would later come in handy. Meanwhile, the nursery's old-time customers would come by and ask the Schuenemeyers if they could track down long-lost varieties of apples they ate in their youth – apples with enigmatic names like Colorado Orange and Cedar Hill Black.

None of the apple varieties rang a bell, which is hardly surprising: Modern supermarkets offer an extremely narrow selection of apples, with just a dozen varieties accounting for 90 percent of all apples eaten in the United States.

Jude wanted to find out more about these ancient apple varieties, which in those pre-Google days meant talking to people and reading books. He soon discovered that the supermarket apples he was most familiar with represent just a tiny handful of the 6,000 varieties grown in the present day, and he was astounded to learn that that number pales in comparison to the 15,000 varieties grown at the turn of the 20th century. Hundreds of varieties grew in Colorado back then, and Montezuma County was home to an especially diverse array of apples.

So where did they all go?

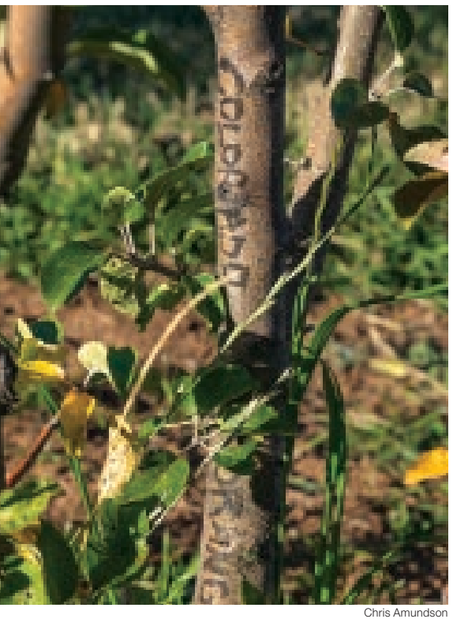
EVERYTHING IN McELMO Canyon seems to give off a feeling of antiquity. The 72 million-year-old granite of Ute Mountain rises sharply on the canyon's south side, while the 1,000-year-old Ancestral Puebloan ruins of Canyons of the Ancients National Monument are tucked away in the sandstone cliffs on the north.

The canyon floor is a verdant ribbon of green dotted with ranches standing out in a sea of dusty red, orange and gold sandstone. Silt-laden McElmo Creek runs through the canyon, meandering its way to Utah. The soil is rich at the canyon bottom, and the rocky walls shield the land from the hot, dry winds in summer and cold north winds in winter. The growing season is longer and less harsh than on the nearby highlands.

Ancestral Puebloan farmers knew this a millennium ago, when they grew corn, squash and beans here. Much later, white settlers discovered the canyon was an ideal place for orchards, and so, too, was the rest of Montezuma County. The local fruit became synonymous with quality.

"The old-timers know that the best fruit comes from around here," Jude said.

Montezuma County's dry climate and 6,000-foot altitude historically kept away the pests and diseases that blemished fruit, making the apples here nationally renowned for looking as great as they tasted.



Chris Amundson

Glen Graves (both)

The Montezuma Orchard Restoration Project, or MORP, raises apple trees at its nursery in McElmo Canyon, where Jude Schuenemeyer grafts scion stems from old trees onto new rootstock. Apples grow on an old tree at T Lazy T Orchard.

Glen Graves

A historic apple orchard thrives in the Montezuma Valley, where the terrain of Mesa Verde National Park rises in the background.

Montezuma County orchards might have reached their zenith at the 1904 World's Fair in St. Louis, where apples and peaches from local growers garnered three gold medals and a huge number of silver and bronze medals. Two years later, at the 1906 Colorado State Fair, Montezuma County orchards virtually swept the board, winning 101 out of a possible 104 ribbons.

Things changed by the mid-20th century, when orchards nationwide started using agricultural technology to grow pretty apples of their own, and in quantities Montezuma County couldn't match. Supermarkets just wanted a constant supply of shiny, red apples, which cut Montezuma County's more diverse but less plentiful offerings out of the loop.

Older varieties began to disappear from orchards, and family-owned apple businesses began to disappear from Montezuma County. Over time, the region became known more for Mesa Verde than for fruit.

People stopped growing apples, but their apple trees did not. As the decades passed, old and neglected trees continued producing those same incredible apples, as though waiting for new people to come along to rediscover them – people like Addie and Jude Schuenemeyer.

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JUDE GOT TIRED of simply talking and reading about the late, great apples of yesteryear – he needed to find out if they still existed. He made the jump to becoming a full-fledged apple detective when he came across a 1905 Montezuma County real estate guide that listed many types of apples grown here. One variety in particular caught his imagination: the Thunderbolt.

Jude put the message out among the old-timers that he was looking for Thunderbolts. Word eventually got around to longtime Cortez-area restaurant owner Pete Montanya.

"I hear you guys are looking for a Thunderbolt," Jude recalls Montanya telling him. "Well, I know where one is."

And they were off. Montanya introduced the Schuenemeyers to the owners of a local orchard, which had been there for generations.

"Their orchard was old, circa 1900, so the trees were probably 100 to 120 years old," Jude said. One of those trees, the owners confirmed, grew Thunderbolts. It was a "big aha! moment" for Schuenemeyers.

"We were really excited to find it," Jude said. "We didn't know how many of these varieties still existed on the landscape. There were a lot of records kept about local apple varieties, and we knew there were a lot of old trees that were still here. It was just a matter of matching the variety to the tree."

Perhaps most importantly, the orchard owners let Jude take some cuttings from the Thunderbolt tree. These became the first scion branches in the Schuenemeyers' plan to bring Montezuma County's apples back from the edge of extinction.

JUDE WANTED TO grow more Thunderbolt trees, and the cuttings from one of the original trees were the only way to make that happen. Contrary to what some might think, the apple's seeds would get him nowhere. If he were to plant five seeds from a single Thunderbolt, he would get five trees genetically different from each other, each with its own kind of apple – and probably none even resembling a Thunderbolt.

Unlike most fruits, apples are "extreme heterozygotes." This means each individual seed can create an entirely new kind of

apple even more different and distinct from its parent fruit than humans are from their parents or siblings. It also means that to get a new Thunderbolt tree – or any other specific variety – someone must take a fruit-bearing stem, or scion, from the desired tree and surgically attach it to the rootstock of another tree.

When Jude is really on a roll, he can graft 25 young trees an hour. After joining the scions to the rootstock, he keeps the grafted saplings moist in a container for a couple of weeks to allow the graft to callous over before they're planted in soil.

"There are some varieties around here, like Gravensteins, that go back to Europe in the 1500s … taking a cutting, grafting it on, taking a cutting, grafting it on, and so on," Jude said. "Without people, these varieties of apples do not exist. We're in a relationship with these trees, and without us not only does that tree die, but an entire genetic variety dies. They have evolved with us."

Grafting can reinforce sameness, ensuring pretty much every grocery store has genetically identical Red Delicious apples. But grafting also can keep apple diversity alive by perpetuating lost or forgotten varieties. That is what the Schuenemeyers devoted their careers to doing in 2008 when they founded the nonprofit Montezuma Orchard Restoration Project, or MORP. Their motivation was to preserve a living part of local history, but it didn't hurt that many of the lost-and-found varieties taste phenomenally good.

MORP'S ULTIMATE GOAL is to restore orchards as a major part of Montezuma County's economy. The Schuenemeyers are mapping the county's 200 or so historic orchard sites – much like an archaeologist would map an ancient ruin – and compiling the data into an orchard database. They also scour the local countryside to identify, catalog, run apple DNA tests, and, of course, grow and sell these long-forgotten varieties of fruit.

They exchange data with other researchers, leaf through dusty old books and interview retired orchard owners to sleuth out new (or, quite old, actually) varieties to bring scions back to their McElmo Canyon nursery for preservation. Jude recently used scions from an old orchard near Lewis, Colorado, to graft new trees of a seedling variety MORP dubbed Purple Mountain Majesty.

"It has an absolutely purple skin," he said. "Sweet tasting, a little bit of acidity to it. In 10 years, this is going to be a star."

Jude and Addie are now sometimes joined in their work by daughters Cecilia, Gillian, Nora and soon-to-arrive Hazel. Picking out a favorite apple would be as impossible as choosing a favorite child, Jude said. And once you get beyond the usual suspects at the supermarket, the apple choices are nearly endless.

"There are so many that are amazing, and we've lost that," Jude said. "There are so few things that you don't have to process or do anything to it. With an apple, you just have to pluck it off a tree and plop it in your mouth."

Martha Teal enjoys a glass of Teal Cider, which she and her husband, Dusty, produce using apples from a historic orchard that MORP helped them nurse back to health.
Chris Amundson

Become an amateur orchardist

You can help preserve Colorado's heritage apple varieties by planting a new tree grafted with a scion stem from an old one. MORP sells saplings of historic Montezuma County apples – including Thunderbolts – at the Orchard Social and Harvest Festival, Saturday, Oct. 13, 10 a.m.-4 p.m., at Flanders Park in Dolores. For more information, visit montezumaorchard.org.