# CULTIVATING Feeding your family, growing our resources CCOLORADO

2019 EDITION | COagriculture.com

## GOOD to the LAST DROP

Sunflower oil offers sustainability and empowers farmers

## Exceptional EXPORTS

Value-added products provide returns for Colorado farmers

## **FLYING HIGH**

Colorado produces high-quality fly tying feathers

BROUGHT TO YOU BY THE COLORADO DEPARTMENT OF AGRICULTURE

## FRESH ON THE MENU

Colorado chefs source local ingredients for a true farm-to-table experience



COLORADO'S ELECTRIC COOPERATIVES

# OUR DIVERSITY IS OUR STRENGTH

Each of Colorado's 22 locally-owned electric distribution co-ops focuses on the needs of its consumer-members.

#### Those needs vary from co-op to co-op and from community to community:

- Electric co-ops serve the poorest counties in Colorado, but also more affluent suburbs and resort towns.
- Some co-ops serve predominantly homes and farms, while others serve businesses and industry.
- The largest co-op in Colorado has over 160,000 consumer-members; the smallest has 3,000.
- Co-ops contract for the electricity they distribute with different power suppliers that have different requirements and resources.
- Colorado's co-ops average 7 consumer-members per mile of line, a lot fewer than other utilities.
- All Colorado co-ops use renewables, but which resources and how much varies with each community.

Despite these differences, all of Colorado's Electric Cooperatives are led by local consumer-members who respond to the needs of the communities they serve.

Colorado's Electric Cooperatives: Your Community, Your Power

## Electric Cooperatives Serving Colorado

Delta-Montrose Electric Assoc.

Empire Electric Assoc.

**Grand Valley Power** 

Grand Junction

Gunnison County Electric Assoc.

Gunnison

Highline Electric Assoc.

Holy Cross Energy Glenwood Springs

Intermountain Rural Electric Assoc.

K.C. Electric Assoc.

La Plata Electric Assoc.

Morgan County Rural Electric Assoc.

Mountain Parks Electric

Mountain View Electric Assoc.

Poudre Valley Rural Electric Assoc.

San Isabel Electric Assoc. Pueblo West

San Luis Valley Rural Electric Co-op

San Miguel Power Assoc. Nucla/Ridgway

Sangre de Cristo Electric Assoc.

Southeast Colorado Power Assoc.

United Power

White River Electric Assoc.

Y-W Electric Assoc.

Yampa Valley Electric Assoc. Steamboat Springs

Tri-State Generation & Transmission



Colorado Rural Electric Association 5400 Washington Street Denver, CO 80216



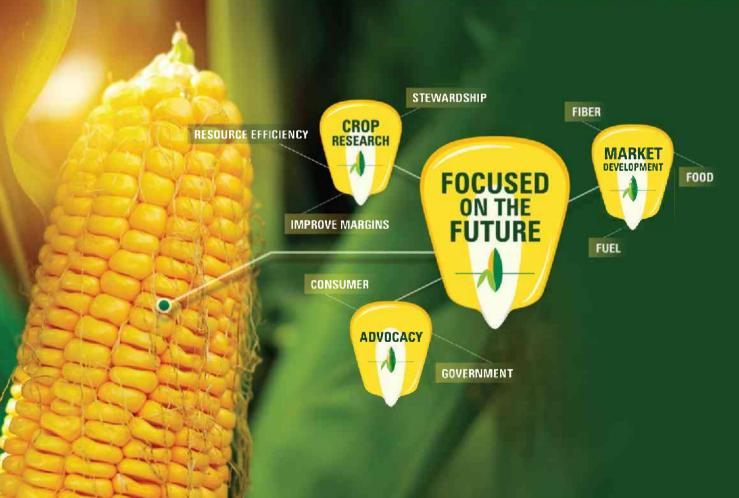
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#### LIVESTOCK FEED, BIOFUEL, BIODEGRADABLE PLASTIC . . . AND MORE

Colorado Corn Administrative Committee manages the state's corn check-off program of one penny per bushel of grain corn produced.

Dollars generated from the check-off are invested in the advancement of feed, fuel, and fiber products made with corn. From developing and securing markets to crop research and education, the committee is focused on the future of the industry, its members, consumers, and the environment.





# Colorado Wheat

Colorado has a long and proud history of wheat production. Three organizations serve the wheat farmers of Colorado, who in turn serve Colorado consumers.





Colorado Wheat Administrative Committee



Learn more at **Coloradowheat.org** 

cwrf

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### COVER STORY (page 34) Chef Jen Jasinski, owner of five

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Photo by Jeffrey S. Otto

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#### CULTIVATING COLORADO

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Third-generation farmer Don Brown was named Colorado Commissioner of Agriculture in 2015. Brown's family farm in Yuma County was homesteaded in 1911 and has been designated as a Centennial Farm.

#### Welcome to the third edition of Cultivating Colorado.

As you flip through these pages, you will be introduced to the farm and ranch families who have helped strengthen Colorado through their dedication to the agricultural industry.

While I hope these articles help educate readers on the role farmers and ranchers play in their daily lives, I also hope the stories and photos motivate you to learn more on your own.

The stories within these pages are just a glimpse into the industry that keeps food on our tables and clothes on our backs. And the people, the animals, and even the insects all play a part in creating a food system that is unlike any in the world.

As a farmer and rancher, and now the Commissioner of Agriculture, I have been

fortunate to travel this great state and see our true American heritage in the hearts of the men, women, and children who care for the animals and nurture the soil.

As one of this year's article explains, from the great plains to our highest peaks, Colorado is truly an agricultural state!

Sincerely.

Don Brown Colorado Commissioner of Agriculture





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# Colorado Agriculture

An overview of the state's food, farming and agribusiness sectors

olorado is known across the nation for its wealth of natural wonders and majestic landscapes. No one knows that land better than the state's farmers and ranchers.

Colorado's food and agriculture value chain ranks among the state's most important economic drivers, generating more than \$50 billion in direct economic activity annually by some estimates and supporting more than 400,000 jobs.

The state contains 33,800 farms that spread across 31.8 million acres of land, each averaging about 941 acres. Even more impressive, of the state's 66.3 million acres, approximately 11.5 million are cropland.

The operators of those farms grow and raise some of the state's diverse agricultural commodities, including cattle and calves, millet, wheat, corn, hay, lambs, wool, horses, dairy, sunflowers, peaches, potatoes, and poultry and eggs.

In fact, Colorado ranks notably nationwide, first in the country for millet production and sixth in the country for peach production. Cattle and calves are the state's top commodity.

While crops and livestock are important, Colorado agriculture encompasses much more. Everything from agribusinesses to agritourism destinations to local food in restaurants and grocery stores help teach consumers more about the importance of agriculture. Colorado agriculture also includes farmers markets, agricultural education, exports, biofuels and technology, as well as the efforts of the Colorado Department of Agriculture to help and support the state's farmers in all aspects of their livelihoods.

With a focus on educating the next generation, Colorado's agriculture industry continues to thrive and grow for the future.

- Rachel Bertone



jobs provided by agriculture

Crops vs. Livestock Production Value



There are 21,443 female farmers in Colorado.





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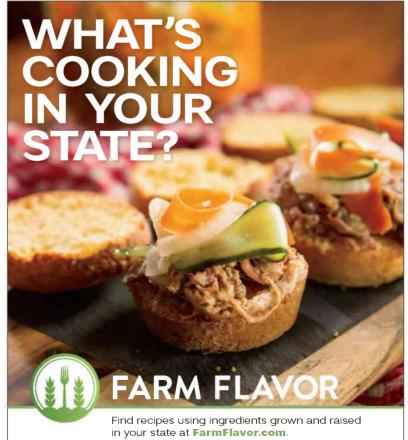
Otero Junior College

www.ojc.edu

#### For more information contact:

Otero Junior College 1802 Colorado Ave. La Junta, CO 81050 719-384-6964 agriculture@ojc.edu





## NEWS & NOTES

#### Art and Agriculture

In the town of Limon. about 100 miles east of Denver. consumers may see an unusual grain bin. This one stands out from the rest, with a large, colorful mural painted on the side.

Staci Beauford, the artist. painted the Heart of Harvest in Limon, depicting a farmer holding his daughter, filled with a rural Colorado landscape and farming images, predominately wheat. Beauford says they really wanted a mural to relay the fact that Colorado's rural community has a story to tell.



#### Hot Potato

Did you know that the average American eats 126 pounds of potatoes per year? Lucky for Coloradans, the state is home to the second-largest fresh potato-growing region in the U.S., the San Luis Valley.

Russet potatoes make up most of Colorado's crop, but the state grows more than 100 varieties of potatoes, such as reds, yellows and specialty potatoes including fingerlings. In 2017, Colorado harvested 56,400 acres of potatoes.

Potato harvest begins in September, and about 98 percent of the crop goes into climatecontrolled storage for sales throughout the year. Learn more at coloradopotato.org.

#### DAIRY DELICIOUS

Colorado dairy farmers provide fresh milk, yogurt, cheese and more for consumers across the nation. Check out some fun facts about the state's dairy sector:



Milk contains nine essential nutrients including calcium, protein, riboflavin and more.

Sources: Colorado Agriculture in the Classroom, Dairy MAX



DAIRY PRODUCTS PROVIDE NEARLY 75 PERCENT OF THE CALCIUM AVAILABLE IN THE FOOD SUPPLY.



COLORADO HAS MORE THAN 100 LICENSED DAIRY COW OPERATIONS.

99 percent of all dairy farms in Colorado are family owned.

DAIRYIS COLORADO'S SECOND-LARGEST AGRICULTURE SECTOR

### 490 MILLION

In 2017. Colorado's annual milk production totaled 490 million gallons.

# What's Growing in COLORADO

A glimpse at the state's leading ag products based on cash receipts



#### **CATTLE & CALVES**

Colorado is home to 13,970 farms that raise cattle and calves, along with 244 feedlots. In total, the state lavs claim to more than 2.8 million cattle and calves.

CASH RECEIPTS

The average American eats approximately 65 pounds of beef each year.

#### HAY

The state's growers harvested more than 1.4 million acres of hay in 2017, including 720,000 acres of alfalfa hay, up 428,000 tons from 2016.

CASH RECEIPTS



#### WHEAT

Wheat is produced in all regions of Colorado and is grown in more than 40 of the state's 64 counties. Hard winter wheat (red and white) is the dominant class of wheat produced in Colorado, accounting for more than 95 percent of the total.

CASH RECEIPTS

#### WHAT ARE CASH RECEIPTS?

Defined by the U.S. Department of Agriculture's Economic Research Service, cash receipts refer to the total amount of crops or livestock sold in a calendar year.

#### **SORGHUM**

Colorado was one of the top five sorghum-producing states in 2017, with farmers harvesting 410,000 acres of the crop. Eastern Colorado lays claim to most of the state's sorghum production thanks to its hot, dry climate.

\$55.5M



#### **POTATOES**

Colorado's San Luis Valley is the second-largest fresh potato-growing region in the U.S., and according to the Colorado Potato Administrative Committee, more than 150 potato-growing families live in the area.

\$193.3M

CASH RECEIPTS



#### **FIELD CORN**

In 2017, Colorado farmers planted nearly 1.5 million acres of corn. Field corn is typically used for livestock feed and ethanol production.

\$532M

CASH RECEIPTS

#### FIND MORE ONLINE

Learn more about crops and commodities produced in the state at **COagriculture.com**.

#### HOGS

Colorado farmers raised 750,000 hogs in 2017 on just over 1,000 farms across the state. The National Pork Board reports that Yuma is Colorado's top hog-producing county, ranking No. 26 in the U.S.

\$166.1M

CASH RECEIPTS



Pork is the most widely

eaten animal protein.
It represents about
42 percent of all
animal protein
eaten in the
world.



#### CHICKEN EGGS

Colorado egg farmers produce more than a billion eggs every year. Eggs from Colorado are distributed within the state and to others

\$76.2M

CASH RECEIPTS

including Utah, Arizona, New Mexico, South Dakota, Nebraska, Washington, Oregon, Wyoming, Nevada and California.

#### **SUGAR BEETS**

In 2017, Colorado farmers harvested 29,000 acres of sugar beets. Since the 1920s, Weld County has been the state leader in sugar beet production and sugar beet acreage.

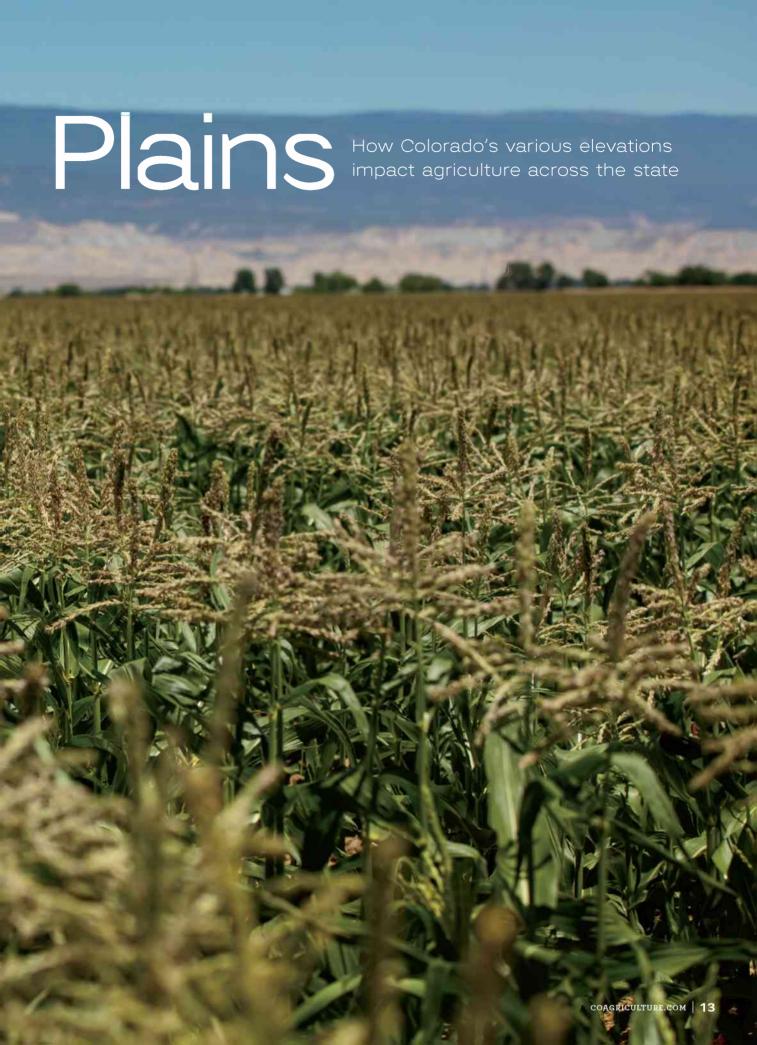
\$32.6M

CASH RECEIPTS













olorado may be known for the mountains. but its booming agriculture industry reaches from the highest elevations down to the lowest valleys. Boasting 66.33 million total acres and 31.7 million agricultural agres, the state is made up of three distinct agricultural regions - the plains, the Western Slope and the mountains – and each one is home to farmers and ranchers who are proud to call Colorado home.

#### The Plains

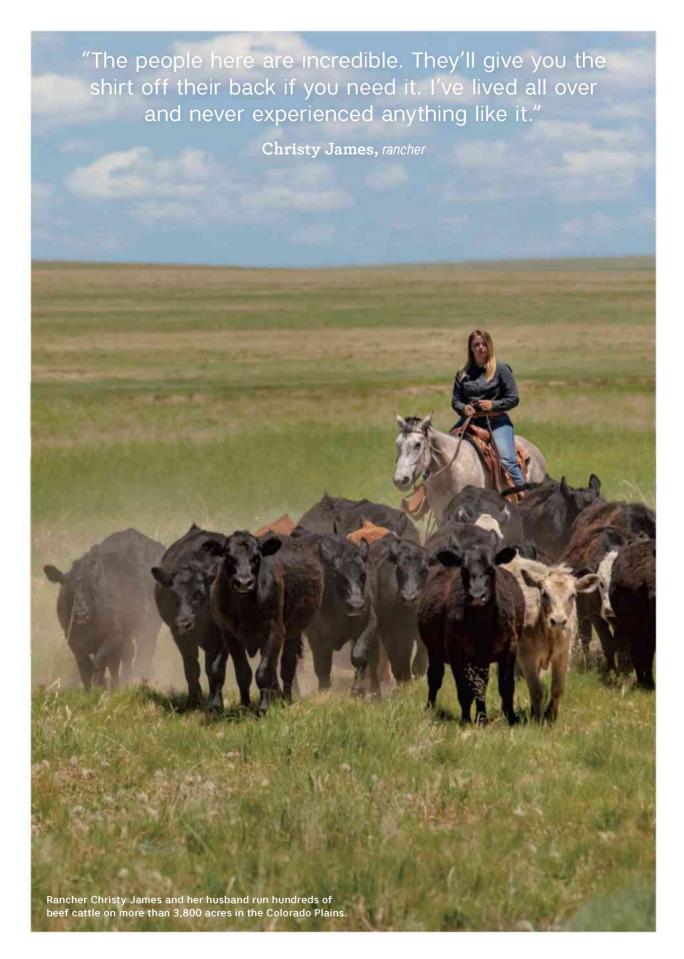
Bordered by the foothills of the Rocky Mountains on the west and Kansas on the east, the Plains are the agricultural heartland of Colorado. The hot days in the Plains and snow-melt irrigation are considered two key ingredients to production of some of the nation's best melons, grown in Rocky Ford.

With a semi-arid climate and little rainfall (as little as 14 inches), the eastern plains are largely comprised of small farming communities that also produce crops like corn, wheat, hay, millet, grain sorghum, sunflowers and oats. In addition, this region is home to large dairy operations and hog farms.

It's also home to a number of livestock ranchers like Christy James. She and her husband run hundreds of beef cattle on more than 3,800 acres in the Plains.

"Producers on the eastern Plains adjust to a variety of challenges from season to season," says R.F. Meyer, an agronomist at Colorado State University Extension. From hail and drought to tornadoes that can tear down irrigation systems in minutes, the Plains demand resilience.

James says the flat and dry land means fires are a regular concern that can impact the bottom line of a ranch. But despite the challenges that come with working on the



Plains, James can't imagine living anywhere else. "The people here are incredible," she says. "They'll give you the shirt off their back if you need it. I've lived all over and never experienced anything like it."

#### The Western Slope

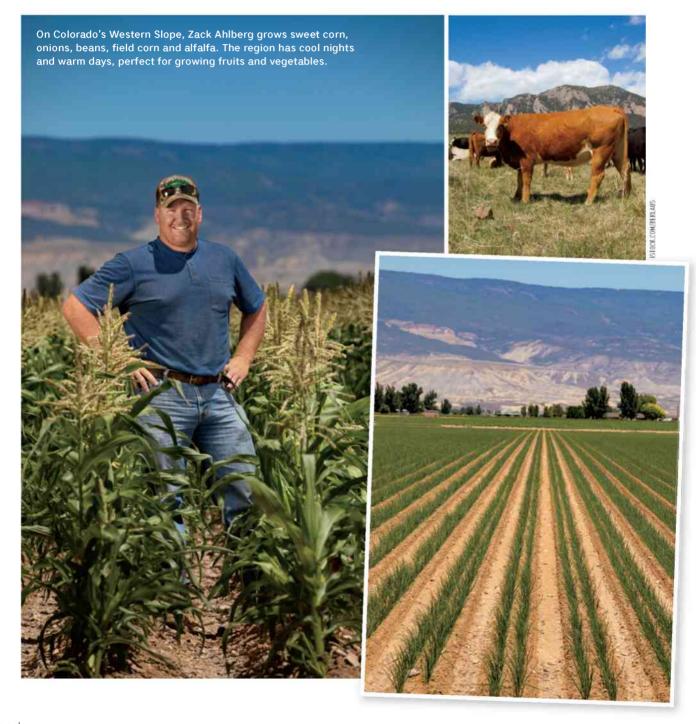
Zack Ahlberg began farming in the valleys on the Western Slope of Colorado with his dad when he was in elementary school, but his greatgrandfather established their family farm in Delta in 1946.

The Western Slope of Colorado may not be heavily populated, but it makes up nearly 40 percent of the state's land area. The region experiences cool nights and warm days, which allows farmers to grow delicious crops like sweet corn and tree fruit with irrigation. The state's famed Palisade peaches are grown here along with apples.

berries and a wide variety of produce. It is also the heart of the state's wine production.

"The temperature swings increase the sugar level in our crops and allow us to raise sweet corn with great flavor," says Ahlberg. His farm is also home to alfalfa. field corn, onions and beans.

While the weather is comparatively mild and the river water is phenomenal, Ahlberg says



irrigating crops in this region can be a challenge.

"We have to work hard to till our ground so we can irrigate properly," says Ahlberg. "In other areas, farmers can hit the soil once and start planting. We have to go over our fields several times."

#### Ranching in the Mountains

The Rocky Mountains command an impressive presence in Colorado, and also provide an impressive backdrop for ranchers to graze their cattle and sheep on what some would call the nation's highest-quality forage.

When he isn't working as the Western Region Director at CSU Extension, C.J. Mucklow runs cattle on mountain land in Steamboat Springs. He says one of the biggest advantages of ranching in the mountains is the ability to put weight on livestock - and quickly.

"We have naturally occurring

cool-season grasses that our cattle can eat with low inputs and high gains," says Mucklow, "That matters because we make our money based on how quickly we can put gains on our livestock."

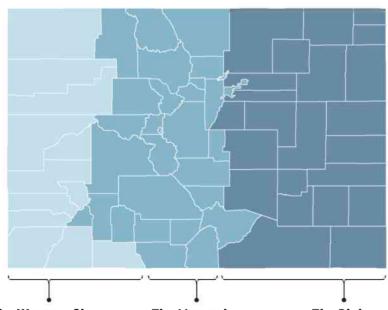
With short growing seasons and chilly temperatures, farmers can grow cold-weather produce like lettuce and spinach, but the primary crop at these elevations is grass hay. This perennial crop doesn't require replanting, which makes the area ideal for grazing cattle.

#### Colorado Proud

From cold mountain winters to the windswept eastern plains, Colorado produces sought-after fruits, vegetables and grains, and exceptional meat and dairy products. But the greatest production just might be the generations of resilient and determined farmers and ranchers.

- Kayla Walden

#### **COLORADO REGIONS**



#### The Western Slope

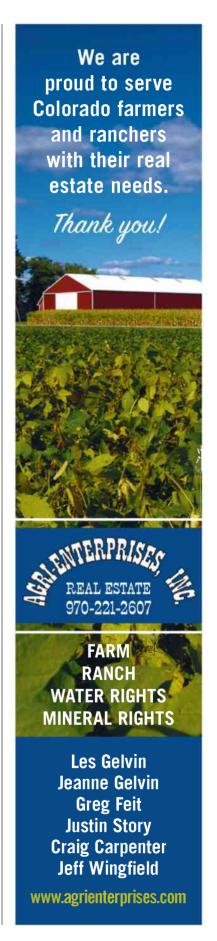
Cool nights and warm days are ideal for sweet corn and tree fruit, plus hay and livestock.

#### The Mountains

Cattle and coldweather produce do well thanks to short growing seasons.

#### The Plains

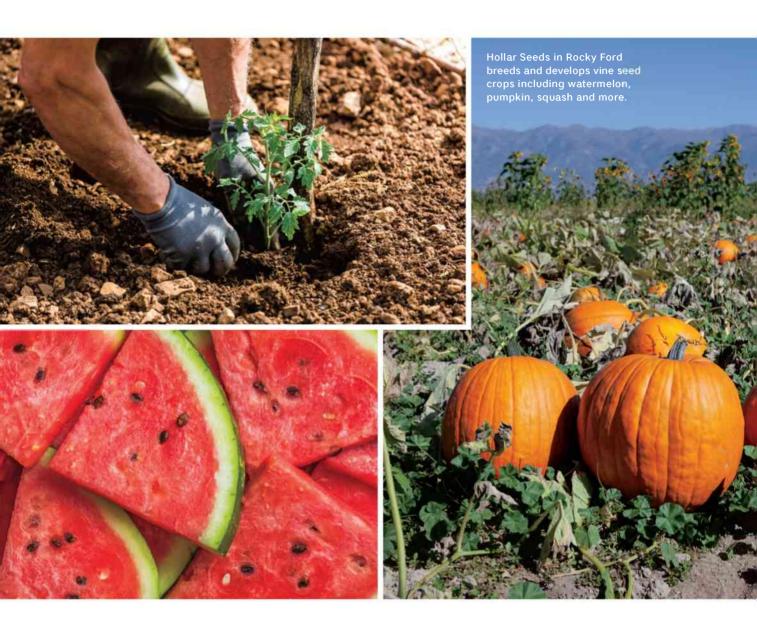
Flat and dry land produces corn, wheat, hay, millet and sorghum, plus livestock.





# Planting a GLOBAL MARKET

Hollar Seeds develops new cultivars to feed the world



t all starts with a seed. Agriculture practices have changed throughout history to meet increasing demands for stability, quantity, quality and variety in the food supply. Keeping up with these changes has required mastering plant breeding and seed development. A Colorado company, Hollar Seeds, has done just that.

"Man has been selecting and breeding 'new' and 'improved' cultivars since crops were first domesticated some 10,000 years ago," says Bruce Carle, plant breeder for Hollar Seeds in Rocky Ford. "My main responsibility is to develop new hybrid cultivars to meet the needs of our customers."

#### A History of Successful Seeds

Hollar Seeds originated in Colorado and is a family-owned business that has specialized in breeding and developing cucurbits - or vine seed crops - since 1950. Founded by Victor E. Hollar, this local business began selling farm equipment, melon seed and alfalfa seed in the U.S. and expanded to include watermelon, cucumber, tomato, squash and pumpkin seeds, exporting all the way to Mexico, Canada, Europe, the Middle East and South Africa by the 1960s.

Vic Hollar's three sons helped run the business, and Larry Hollar took over as president in 1978. In 2015, Larry passed the legacy

to his son-in-law, Andy Medina.

Today, the company has distributors in about 75 countries including most of Europe, Turkey, Mexico, Russia, Iraq, China, South Africa, Brazil, Australia and Japan. It caters to a world market of local preferences for different sizes, shapes, colors and textures of horticulture crops.

"Our product line reflects that diversity is, by choice, not reliant on one or two 'top sellers,' " Carle says. "We sell quite a bit of seeded watermelon around the world, we are a major supplier of butternut squash seed and a major player in the Middle East summer squash market."



#### **Breeding for Change**

Because new-and-improved competing varieties are constantly entering the market, the typical life of a good cultivar is about 10 to 15 years, Carle says.

He primarily works with watermelon and hard squash such as butternut, acorn and spaghetti squash. Plant breeders at Hollar Seeds work to develop improved inbred lines of crops through controlled cross breeding and self-pollination, as well as to construct new hybrid combinations by crossing various inbred lines. Carle and his colleagues also test hybrid seeds for marketability and work to increase parent lines and

production of the hybrids. "From the conception of an idea to the introduction of a new cultivar. it can take 12 to 14 generations," he says. "Fortunately, utilizing greenhouses and some of our southern hemisphere growing locations, we can usually get three generations in a year."

#### Adapting for a Global Climate

Growing in Colorado, which falls between U.S. Department of Agriculture Hardiness Zone 4 and 7 depending on where you are, can offer a different climate than some of Hollar Seeds' clients growing in South Africa. Fortunately, most of what the company sells is adapted to a variety of environments.

"A major focus of our breeding programs is to introduce new disease resistances into our material, which enhances adaptability," Carle says. "We also do some early-generation selection in other locations, and we rely heavily on our testing phase of hybrids with cooperators around the world." Usually it isn't a question of whether a variety will grow and

produce a crop, it is whether the variety yields sufficiently and meets local market specifications. "We produce a quality seed, free of seed-borne pathogens with excellent germination and highgenetic purity," Carle says. "We are proud of our precision milling, treating systems and our quality-control program."

#### Planting for the Future

Hollar Seeds will continue its work to improve disease and pest resistance for higher yields and reduced input costs. The company also works to improve selection for cold and heat tolerance to expand production windows for growers around the world.

There is always new material in the pipeline. "We look at hundreds of new hybrids each year and may choose 5 to 10 percent to look at again," Carle says. "Over the course of three to five years of worldwide testing, we may select anywhere from two to five varieties to advance to commercial status from each wave of development."

-Blair Thomas

## Millet on the Rise

Millet production continues to be an important sector for Colorado

hen you think of Colorado agriculture, you may picture herds of beef cattle, fields of wheat and perhaps even peaches. But what about millet?

Currently, millet is used mostly for birdseed and other pet foods, though it can also be used to make flour for human consumption. It is high in protein and gluten free.

Often overlooked in other states, this tiny seed makes a big impact for Colorado. The state is the No. 1 producer of millet in the country, growing about 6.4 million bushels annually, and earning about \$23 million from the crop.

Chris Stum has been farming full time with his brother-in-law for about 12 years, and his family's farm has always grown millet.

"The bigger family farm has about 7,000 acres and with our current rotation, roughly a third of that is millet," Stum says. "We raise proso millet for the grain market."

Stum explains that millet is often used as a rotation crop with wheat, corn and other row crops. Colorado's climate is ideal for millet, because the cereal grain does very well with little water.

"People tended to plant millet when their wheat crop failed, but then they started liking it and planting it into the rotation since it does very well on little water. It's a staple crop in northern Colorado," Stum says.

As former executive director of the Colorado Wheat Administrative Committee, Darrell Hanavan says wheat and millet go hand in hand.

"During that time, a lot of the wheat producers were also millet producers, and they always wanted to establish a millet marketing order," he says. "When I retired, I volunteered to help establish that and formed the High Plains Millet Association (HPMA)."

Hanavan and Stum are both involved in the HPMA - Hanavan as a consultant and Stum as president. HPMA's goal is to provide sustainability to Colorado's millet industry through production research and marketing, and to expand both domestic and international markets for the crop.

HPMA is working with both the Colorado Department of Agriculture and Colorado State University to reach this goal. The Colorado Department of Agriculture promotes millet as an export crop,



usually to Europe, and helps make connections between millet producers and buyers. CSU conducts research and provides advice to farmers on best farming practices and weed and insect control.

"Research focuses on developing new end-use products and new millet varieties with improved quality with agronomic traits," Hanavan says. "We also want to focus on education to millet producers, as well as to consumers."

Colorado currently has four flour mills producing millet flour, as well as Rollingreens Millet Tots, which are similar to tater tots.

"I really hope we can expand the market and make millet a more diverse and better-known crop," Stum says. "I think we need to keep educating people on the uses of millet and then it can really take off."

Learn more about Colorado's millet industry at sites.google.com/view/hpma/consumers.

- Rachel Bertone





# HELP FOR HEMP

4Rivers Equipment helps hemp farmers be on top of their game



olorado farmers and ranchers have long depended on 4Rivers Equipment for all their farming needs, from tractors and planters to parts and service. 4Rivers Equipment traces its history all the way back to 1926, when it started as a small John Deere agriculture equipment dealer in Holly.

Since 2013, hemp has become Colorado's new cash crop – there were nearly 500 registered hemp farmers in Colorado in 2017, and the state produced a third of the total hemp grown in the nation. By the end of 2018, Colorado hemp farmers will have harvested more than 18,000 acres of hemp, compared with only 200 acres in 2014.

"We are a one-stop source for all the hemp producers' needs, from tractors and sprayers to GPS equipment, tillage equipment and everything else they need."

Allen T. Matsuda, territory manager in agricultural sales for 4Rivers Equipment

In recent years, however, a new kind of farmer has found a partner in 4Rivers Equipment, which is based in Greeley and has 15 stores throughout the state. Colorado hemp producers have added a new crop to 4Rivers' lineup of customers as the state's hemp industry continues to boom.

"With several agricultural crops like traditional corn, beans and sugar beets being depressed, hemp has added another option for Colorado farmers and has given us new customers over the past couple of years," says Allen T. Matsuda, Territory Manager in Agricultural Sales for 4Rivers Equipment. "A few years ago, hemp was virtually an unknown crop. People thought it would be here today and gone tomorrow, but instead it has really ramped up."

Hemp was prohibited by the federal government for many years due to its correlation with marijuana, but more and more consumers are learning about its variety of valuable uses, from fiber products such as clothing and rope to CBD oil, fuel and health products.

It's important to note that even though hemp and marijuana come from the same plant species, cannabis sativa, they are not the same. They come from different parts of the plant, and hemp contains almost no THC (less than 0.3 percent), which is the psychoactive ingredient in marijuana that produces the feeling of being high.

"Many of our customers produce

hemp for CBD oil for its medicinal needs, and others for fiber," Matsuda explains. "We are learning so much about the hemp industry, and all the products it helps make. There are many products I never dreamed hemp was part of."

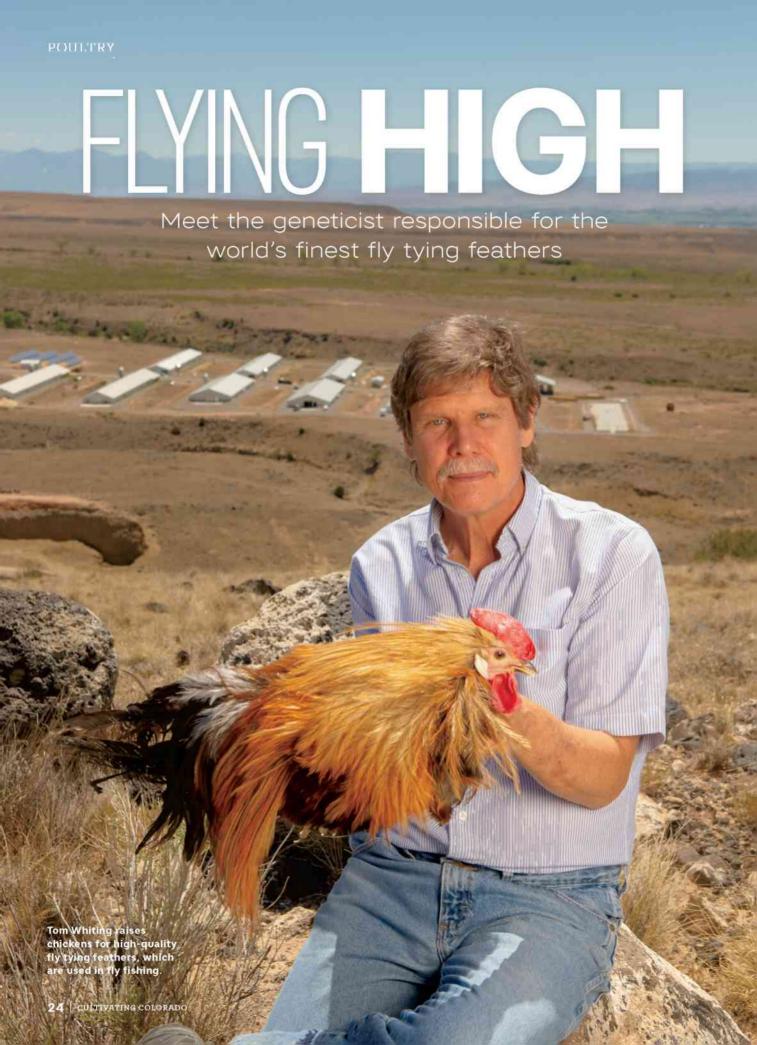
Hemp producers are relying on 4Rivers for all the equipment needed, from planting to harvesting their crop.

"It's a booming industry, and we're trying to be at the forefront of it," Matsuda says. "We are a one-stop source for all the hemp producers' needs, from tractors and sprayers to GPS equipment, tillage equipment and everything else they need."

To keep up with demand, 4Rivers Equipment partnered with an Italian company called C&M (Checchi & Magli) in 2018 to provide hemp-transplanting equipment. With this type of partnership and more than 92 years in the industry, 4Rivers Equipment has always worked to provide customers with the latest equipment for the changing landscape. As Colorado's agriculture industry continues down the path of hemp exploration, 4Rivers will continue to be by farmers' sides.

- Jessica Mozo





feather is a key ingredient in fly fishing.

By winding a feather around a hook, fishermen are able to cast their lines and create the appearance of an insect on the surface of the water. This attracts the attention of the fish. which swim to the surface hoping for a quick snack. But not all feathers are created equal.

"It should be supple, but strong and uniform so when it's wrapped around the hook, it doesn't break or twist," Tom Whiting says.

If there's anyone who knows a thing or two about fly tying feathers, it's Whiting.

Owner and operator of Whiting Farms in Delta, Colorado, Whiting has 27 barns that total approximately 300,000 square feet of building space and house upward of 70,000 chickens at any

More impressively, his birds produce the world's finest fly tying feathers. Estimates suggest Whiting's chickens are currently responsible for 70 to 80 percent of the market.

given time.

#### **Humble Beginnings**

Though his birds dominate the industry now, Whiting found his love for poultry as a child raising backyard chickens and peddling eggs in the suburbs of Denver.

"From the time I was 10. I knew I wanted to raise animals," he says. "I used to dream about breeding programs. What would happen if I mixed this bird with that bird?"

His love for birds led him to attend the University of Arkansas. where he earned his Ph.D. in poultry genetics and management.

"While I was there, a movie came out called 'A River Runs Through It," Whiting says. "It featured a few minutes of fly fishing. Suddenly, there was a lot of interest in the

sport - and a real need for feathers."

Jumping on the opportunity in front of him, Whiting struck a deal with a hackle producer and immediately began making sales. A hackle is the long, narrow feather found on the neck of a bird that is used for making fly fishing ties. The demand for feathers was so high that before he even graduated, he pre-sold product in anticipation of launching his own business.

#### Whiting Farms

His farm may be large, but Whiting says he focuses on highmargin, low-volume production, placing quality over quantity. Some may argue that the tactic isn't the optimal business move, but

> Whiting believes it's a must when producing premier fly tying feathers.

Whiting says before a chicken will allocate energy and nutrients to

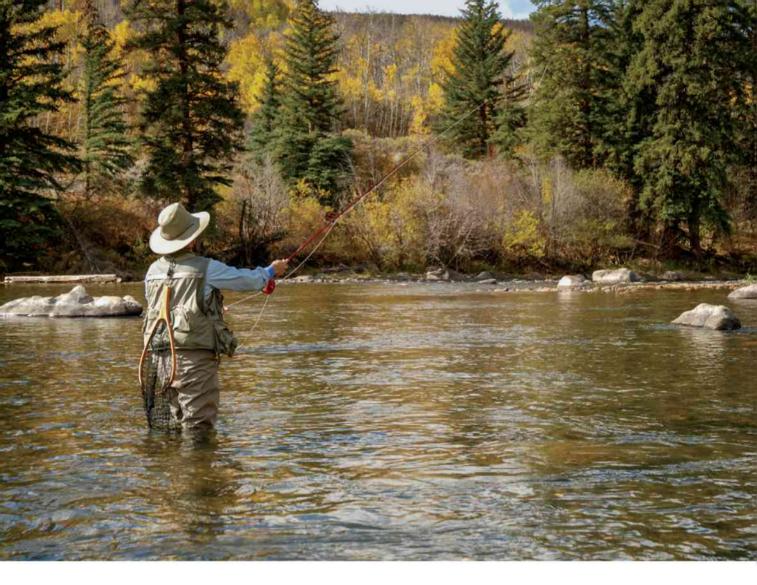


#### FLY TYING FEATHER FACTS

- Feathers have many functions for the bird, including temperature regulation, protection of the skin, camouflage, flight and more.
- Each individual feather follicle has the potential to grow several, often radically different types of feathers, depending on the bird's life stage.
- Feathers don't grow over the entire surface of the bird, but rather in discrete groupings known as feather tracts.
- Unlike hair which continually grows, feather formation continues only until completion, then ceases until the feather is lost or molted and a new feather is generated.



Source: Whiting Farms



producing high-quality feathers. it focuses on survival, comfort and reproduction. Only once those needs are met will they begin to develop quality feathers.

"Because these animals won't attain their full genetic potential unless their hierarchy of needs is met first, these are arguably the most pampered commercial chickens in the world," he says.

#### **Designer Chickens**

One of his favorite parts of the job is using genetics to solve problems.

"I like when people describe to me what they want in a fly tying feather and then I get to figure out how to make that on a bird." he says.

His creativity and hard work

"While I was [in college], a movie came out called 'A River Runs Through It.' It featured a few minutes of fly fishing. Suddenly, there was a lot of interest in the sport - and a real need for feathers."

Tom Whiting, poultry farmer

hasn't let him down yet. In addition to leading the market with exceptional feathers, Whiting has also developed entirely new chicken breeds.

The most popular are the Whiting True Blue and Whiting True Green, birds with beautiful plumage in a rainbow of colors that lay blue and green eggs.

Whiting says he never

envisioned his business growing to this level of influence and success. but he considers himself lucky to be doing exactly what he loves.

"There are all kinds of opportunities out there if you think outside the box," he says. "I've hit a lot of dead ends, but if one out of every five hits, it's worth the effort to try."

- Kayla Walden

Whiting uses genetics to breed birds that produce specific fly tying feathers used for fly fishing. He focuses on high-quality feathers, which he says come after the bird's basic needs of survival, comfort and reproduction are met.

## A CALL FOR COMFORT

Struggling farmers encouraged to talk through crisis hotline

or many Colorado farmers, farming is not just a job, but a way of life. Farms and ranches have been passed down through generations, and it's the responsibility of the newest generation to keep the operation thriving, prospering and growing. But farming, unfortunately, is an unpredictable way of life, with many uncontrollable challenges that accompany it, including weather and natural disasters, price fluctuations in the market, disease, and more. These challenges can take a toll on the land and crops, but more importantly, they take an even bigger toll on the farmer.

"My wife and I started farming in 1978 when we joined the family operation. You couldn't do anything wrong for the first three to five years, and then you couldn't do anything right. We were lucky to make it," says Commissioner of Agriculture Don Brown. "Commodity prices and land values collapsed, there was an enormous amount of foreclosure and families that had been in business for more than 100 years were no longer operating. The mental toll is just devastating."

In the throes of a financial crisis, farmers don't just lose their jobs - they lose their livelihoods.

"They typically lose everything," Brown says. "They can't feed the kids or make mortgage payments. You have to find another job and you've had this skill set for farming your whole life. Now, abruptly, you have to find a new skill set. Mentally, you're a failure, and that's all you can think about. It doesn't take long to spiral down from that when there's reminders all around you."

Brown says that consumers are usually blind to a farmer's struggle, because the food keeps coming.

Joe Harper, a fifth-generation farmer in Yuma County, also understands the mental battle.

"When the commodity prices go up, everything else follows suit. Equipment and fertilizer costs are high, and the return on investment, if there is one, is low," he says. "My family has been here five generations. Our blood, sweat and tears have gone into the farm - it's who we are. Maybe it's some pride showing, but we can't just go into town and find a new job at the hardware store. It doesn't work like that."

He adds that farmers endure an enormous amount of pressure because there's no room for error.

"It's a real challenge to maintain a positive outlook when you see things slipping away," Harper says. "The reality of being the person that may feel

responsible for losing the farm is a real heavy weight."

Because of this struggle, the rural suicide rate in Colorado and across the country has increased in the past few decades. Commissioner Brown decided to take action for prevention in the spring of 2017, when commodity prices started to dip again.

"You could sense it was coming," he says. "There were low commodity prices and interest rates were creeping back up. I felt like I could see the 1980s starting all over again."

The Department of Agriculture partnered with the Colorado State University Extension, Rocky Mountain Farmers Union and the Colorado Farm Bureau to take advantage of the existing crisis hotline provided by the Colorado Department of Human Services.

"We developed training videos that helped hotline workers speak to farmers," Brown says. "Every profession speaks a different language and this was the first time we made a push to the rural community for those who are struggling. The videos teach responders a little bit about the language of agriculture."

The Department leaves cards with the hotline number in rural areas and at businesses across the state, in hopes that someone who needs help will make the call.

Harper was involved in the videos as well, talking about his experience and hardships. He worries that farmers may not call, but maintains a positive attitude, always making a point to talk to fellow farmers around town or in the coffee shop.

"If there's one person that can call in, and it helps them, then it's worthwhile," he says.

To contact the crisis hotline, call (844) 493-8255 or text TALK to 38255.

- Rachel Bertone



# Good to the LAST DROP

Sunflower oil promotes sustainability and empowers local farmers

unflowers are known all around the world as a symbol of hope and happiness.

While this charming and beautiful flower can put a smile on anyone's face, it has more to offer the world than a pop of aesthetic beauty. At the center of a sunflower are nutrient-dense seeds that make a delicious snack – and can be used to produce high-quality cooking oil.

#### Colorado Mills

Colorado Mills, based in southern Colorado, is no stranger to sunflower oil. Its state-of-the-art facility has the capacity to produce 12,000 gallons of oil every single day.

"Our oil is made from locally grown, high-oleic sunflower seeds," says Kevin Swanson,

marketing director at Colorado Mills. "We use an expellerpressed process to extract the oil from the seeds. This process doesn't use solvents or harsh chemicals like other oils. Instead, it uses friction and pressure."

Swanson says the oil then goes to the refinery, which removes any impurities and found in crude oil.

The end result - sunshine in a bottle: delicious, heart-healthy, trans-fat-free sunflower oil.

#### Cooking with **Sunflower Oil**

Sunflower oil is teasingly

monounsaturated fats and low saturated and polyunsaturated

fats, high-oleic sunflower oil is very stable with an extended shelf life, making it an ideal pantry staple.

Whether you want to fry, bake, sauté or sear, sunflower oil is a top choice. The best part is that this unassuming oil doesn't alter the taste of your meal.

"The pleasingly neutral flavor of high-oleic sunflower oil allows you to taste your food, not your oil," Swanson says.

#### **Empowering Local Growers**

In order to produce so many gallons of sunflower oil, Colorado Mills works hand in hand with local farmers to nurture a true farm-to-table system. In fact, about 80 percent of the sunflower



#### SUNFLOWER OIL

- · Sunflower oil is perfect for sauteing, frying, baking, and making your favorite salad dressing or dipping oil.
- High-oleic sunflower oil has three times the amount of vitamin E as olive oil.



seeds processed at Colorado Mills are grown from within 100 miles of their facility.

"Contracting with local growers is essential to our success," Swanson savs. "It lets us know the who, what, where and how of our seeds."

The partnership between local growers and Colorado Mills helps everyone win.

Selling their sunflower seeds to Colorado Mills provides farmers with access to a good, solid, local market for their products - and gives them the benefit of low transportation costs, which helps increase their profit potential.

#### No Scraps Left Behind

Because Colorado Mills is dedicated to being an environmentally friendly and zerowaste company, they use as much of the sunflower seed as possible.

The expeller-pressing process that produces their delectable oil also results in something known as sunflower meal. Rather than throwing out this nutritious byproduct, Colorado Mills turns it into livestock feed for local farmers and ranchers.

"Our sunflower meal typically runs 27 percent protein and 10 to

12 percent fat," Swanson says. "It's very palatable and great for cattle, goats, horses, sheep and other specialty animals."

Since the majority of the sunflower farms that the company works with are generational family farms with their own sustainability practices, it only makes sense that Colorado Mills would follow in their footsteps.

While Colorado Mills crushes more than 40 million pounds of sunflower seeds every year, they're a humble bunch who credit a great deal of their achievements to the local farmer.

"We view the local agriculture community as the backbone of our success," Swanson says. "Supporting this community strengthens Colorado Mills, and at the same time, strengthens our community."

- Kayla Walden

#### FIND MORE ONLINE

Learn more about specialty crops grown in Colorado at COagriculture.com.







## **CULTIVATING CONTINUED SUCCESS**

The Colorado Farm Bureau celebrates its centennial

elebrating 100 years of excellent service to members across Colorado, the Colorado Farm Bureau is poised and ready for 100 more years of prosperity as the state's largest agricultural organization.

"We're looking to the future, focusing on changing with the agriculture industry, and doing our best to help farmers, ranchers and producers thrive and meet the unique challenges of today," says Shawn Martini, vice president of advocacy for the Colorado Farm Bureau.

With a member in every county of the state comprising a total of nearly 25,000 individuals, the Colorado Farm Bureau provides an organization in which members may secure the benefits of a united front. Members make

the final decisions regarding the policy direction of the organization on important issues such as property rights, food and nutrition, taxes, energy, and many others, and the Colorado Farm Bureau advocates for those decisions, supporting its members at both the state and national capitols as it works to make Colorado and the U.S. a better place for agriculture.

"The Colorado Farm Bureau has maintained a strong presence in the state's agriculture industry for the past 100 years, and we're only getting stronger," Martini says. "We're working closely with the broader business community as well as government officials and policymakers to ensure agriculture continues to have a seat at the table as we shape

the future of Colorado and the nation."

The Colorado Farm Bureau also includes a full-service, memberowned insurance company – the Colorado Farm Bureau Mutual Insurance Co., the state's leader in farm and ranch insurance – which has served members since 1950 by providing affordable business, auto, home, and life insurance products and services specifically designed to serve Colorado residents.

Interested in learning more? Visit coloradofarmbureau.com or call (303) 749-7500 for additional information about the Colorado Farm Bureau and get more details about the Colorado Farm Bureau Mutual Insurance Co. at cfbinsurance.com.

- Jessica Walker Boehm





BROUGHT TO YOU BY COLORADO FARM BUREAU

Colorado prisoners gain valuable skills through inmate work program

f you've eaten buffalo mozzarella in the United States, chances are good that the milk came from the nation's largest water buffalo dairy, located in Colorado - and operated by inmates.

> It's just one of the dozens of agricultural industries

> > successfully launched by Colorado Correctional Industries. or CCI.

established by statute in 1977. CCI receives no taxpayer support. It is self-funded through enterprises ranging from training wild Mustangs to making custom fly-fishing rods to growing grapes to sell to winemakers.

CCI Director Dennis Dunsmoor savs the many industries teach offenders real-world skills that they can use when they are released back into society.

"One of the best aspects of CCI is that we provide a future for a lot of these people when they leave

here," Dunsmoor says.

He received an email last year from an offender who left CCI six years ago. The man is now living in Florida and working as a machinist making nearly \$30 per hour - a skill he learned working on tractors in the CCI repair shop. He also said he's raising goats, a skill he learned at CCI.

The former inmate confessed to Dunsmoor that at one point in his life he was a "knucklehead," but at CCI he learned to tool and die. Dunsmoor grew up in a manufacturing environment and savs the offender was one of the best he ever trained. "Now he's turned into a productive person earning a good living and enjoying his life," Dunsmoor says. "It feels good to open doors for someone willing to work hard."

CCI has proven to reduce the cost of offender housing, recidivism and incidents of problems within the prison population. The national average for recidivism, or return to prison, is about 60 percent, compared to the CCI rate of 25





percent. Out of the 14,000 offenders in the state system, about 2,000 of those work within the CCI program.

The products produced and grown through CCI provide food for the prison and generate revenues from surplus crops sold to outside markets.

The prison has three kinds of dairies: goat, cow and water buffalo. Dunsmoor says the water buffalo dairy has been one of the most interesting projects. In order to develop quality milking stock, a breeding program relying on AI has been initiated.

"It takes time to develop the animals that can produce quality milk, but it's going to be worth it," he says. "Right now it's a little difficult to make a lot of money



#### AG INDUSTRIES AT CCI

#### Fishery:

- Tilapia
- Trout
- Catfish
- Red claw lobsters
- Ornamental koi and goldfish

#### Farm/Greenhouses:

- Vegetables for prison kitchen
- Field corn for silage for dairy operations
- Apples
- Berries
- Flowers
- Conifer trees

#### Animals/Livestock:

- Holstein dairy
- Goat dairv
- Water buffalo dairy
- Wild mustana trainina
- Dog training
- Hungarian partridges

#### Other:

- Honey production
- Custom fly rods
- Grape vineyard

on the water buffalo milk, but we're taking the long view. We're developing good milking stock, with animals producing 40 pounds of milk a day."

One of the advantages of the CCI agricultural program is the ability to be flexible.

The goat dairy is a good example of the advantage of flexibility. "We started out trying to make cheese, but it didn't take long for us to figure out that wasn't working. Now, we sell the milk to the professionals and let them make the cheese. Goat milk produced at our dairy has gone into cheeses that have won awards around the world."

The milk produced in the Holstein dairy is processed for use within CCI and the entire Colorado prison system.

All of the silage fed to the livestock at CCI is raised by the offenders. In terms of aquaculture. CCI farms trout and tilapia. The farm is experimenting with producing catfish, yellow bass and striped bass.

Other programs involve working with animals in a different way, like dog training.

"We always like it when we see one of these big guys who has never taken care of anything, take on a dog to care for and train and be successful at that."

Dunsmoor says.

As he approaches his own retirement, Dunsmoor reflects on the vision of the legislators who adopted the statute that created CCI. "They were innovative thinkers," he says. "They created a self-funding program that does good work on several levels, and helps people."

He says hard work is important to rehabilitation. "People who work hard during the day feel good about what they accomplished. If we miss that in the prison system, we'll miss that in life. It's important for everyone."

- Kim Madlom

Offenders at Colorado Correctional Industries learn real-world skills that they can use when released through ag-related programs including working on the goat, cow or water buffalo dairies.



#### Colorado chefs source local ingredients to present a true farm-to-table experience

olorado may be famous for mountain peaks and snow skiing, but it's also home to a burgeoning food scene. With bountiful fruit crops, more than 2.8 million head of cattle and upward of 34,000 farms, the Centennial State is a culinary playground.

Thanks to a large and thriving agricultural community, the food served around town is the definition of fresh. Whether you sit down to enjoy a meal at an upscale restaurant or fill your bag with produce from a local purveyor, you're likely to indulge in flavors

from a farm just down the road.

Jason Morse and Jen Jasinski are two chefs in Colorado who prominently source ingredients from and partner with local farmers, ranchers and producers.

#### Jen Jasinski of Rioja

Growing up in a single-parent household, Jen Jasinski learned to cook out of necessity and developed a love for creating recipes at an early age.

"Where I am now seems so far from that," Jasinski says. "But that's where it all started." Jasinski was the recipient of

the James Beard Award for Best Chef Southwest and has a culinary resume that includes numerous restaurants. Her flagship is Rioja, a Mediterranean restaurant located in downtown Denver that offers a menu full of delicious dishes influenced by local and seasonal products.

"Some of my favorite Colorado products are Rocky Ford melons, Palisade cherries and peaches, and local cheese from Fruition Farms or Haystack Mountain," Jasinski says.

She also loves Colorado lamb, beef and pork from Boulder Lamb and Corner Post Meats.

"If we all supported our local economy. it would help the people around us. It would create jobs in the industry and lessen the impact on the environment."

Jen Jasinski, Colorado chef



# COLORADO LAMB IS KNOWN FOR ITS OUTSTANDING FLAVOR.

Peaches, apples and cantaloupe are Colorado's largest fruit crops. Rocky Ford has been dubbed the "Melon Capital of the World."

Source: Colorado Central Magazine

#### Ten Tysinski RECIPE

# Grilled Colorado Peaches, Cabrales Crostini, PX Sherry Reduction

#### Ingredients

1 sourdough baquette

10 ounces Cabrales cheese (preferred) or Valdeon cheese\*. divided

1 cup pure olive oil, divided

3 sprigs fresh rosemary

1/4 cup flat-leaf parsley leaves. cleaned and no stems

Kosher salt and black pepper, to taste

6 ripe Palisade Colorado peaches

½ pound organic arugula

Pedro Ximenez 1979 sherry (preferred) or any vintage PX sherry, to taste

6 paper-thin slices serrano or prosciutto ham

\*Cabrales cheese is a tangy, bold Spanish bleu usually found wrapped in fig or chestnut leaves. Valdeon is also a Spanish bleu cheese, but it's not as creamy or bold as Cabrales.

#### Instructions

- 1. Cut the baguette into 12 bias-cut pieces ½-inch thick and about 5 inches long. Heat oven to 350 degrees.
- 2. In a food processor, add 8 ounces of the Cabrales cheese and 1/2 cup of the olive oil. Blend until smooth.
- 3. Dip each piece of bread into the cheese mix and then place on a tray covered with parchment paper. Bake in the oven for about 5 minutes. You want the bread to be crispy on the outside but still a bit soft in the center.
- 4. Strip the rosemary off of the stems and place the leaves in a blender with the parsley leaves and the remaining ½ cup olive oil; blend until a beautiful green rosemary oil is made. Season the oil to taste with salt and pepper and place it in a small container until it is ready to serve.
- 5. Preheat grill to high heat. For the peaches, there are two ways you can prepare them. 1.) If you like the skin, you can cut the peach in half, remove the pit and then brush the peach with a tiny bit of olive oil. Grill the peach over high heat just to make nice grill marks and warm the peach through. 2.) If you do not like the skin,
  - quickly blanch the skin off the peach by scoring the end of the peach with an "X" and then placing it in a pot of boiling water for about 10 seconds; immediately plunge
  - it into ice water to cool the peach. This should release the skin and you can easily peel off the skin. Finish grilling as above.
- 6. In a bowl, toss the arugula with the rosemary oil and a bit of the sherry wine; season with salt and pepper. Place a slice of ham along the bottom of each salad plate. Mound the arugula in the center of the plate and then place two warm crostini over the salad. Crumble a bit more cheese on the salad. Place one or two peach halves on the plate and then drizzle with more rosemary oil and sherry wine.





Chef Jen Jasinski owns five restaurants in the Denver area. She uses local ingredients from nearby producers as well as vegetables and herbs grown in her own backyard garden.

Jasinski has also developed great relationships with local producers. In fact, you can occasionally find her team circled around a barbeque with the owners of Boulder Lamb, where she purchases lamb and beef for her restaurant.

"If we all supported our local economy, it would help the people around us," Jasinski says. "It would create jobs in the industry and lessen the impact on the environment."

#### Jason Morse of 5280 Culinary

It didn't take long for Jason Morse to fall in love with food. He snagged his first job in the industry, cooking and washing dishes, at the humble age of 14.

"My love for all things culinary grew from there," Morse says. "I've lived a culinary life for my entire

career, and I've been so fulfilled to have done so."

With a passion for high-quality food, Morse opened 5280 Culinary in 2010. His company offers everything from exceptional spices and brines to recipes for dishes like smoked pork belly - with recommendations to buy local meat.

"Supporting the local community is such an amazing thing for everyone," Morse says. "It allows us to keep the money, products and story local, all while reducing our footprint. Not to mention the quality of food raised in Colorado is top notch."

Over the years, Morse has worked closely with groups like Colorado

Proud, Colorado Beef and Colorado Farm Bureau to learn about everything from infrastructure to the impact agriculture has on wildlife and the environment.

"I've built some great friendships in the agricultural community," says Morse. "One of my best relationships has turned into a fun chef-and-rancher partnership. We're now raising chef-created Hereford beef."

#### Farm to Table

With fresh ingredients at their fingertips, it's no wonder these culinary artists choose to fill their menus and recipes with Colorado goods.

- Kayla Walden

#### FIND MORE ONLINE

Learn more about the state's local food scene at COagriculture.com.

# Asparagus, Goat Cheese and Prosciutto Pizza

#### Ingredients

8-10 ounces pizza dough (fresh or thawed)

2 ounces sauce (pesto, etc.)

1/4 cup 50/50 blend mozzarella and Parmesan cheese, shredded

4 slices prosciutto, sliced into 1/2-inch strips

6 spears asparagus, jumbo-cut into tips and stalk

1 medium shallot, shaved thin

4-5 ounces goat cheese, crumbled

1 Roma tomato, sliced

Fresh parsley, chopped, for garnish

#### Instructions

- 1. Heat your grill to slate temp of 650-700 degrees. When stone is preheated, we recommend keeping the temperature at the same setting to help ensure consistent temperature and easy recovery during cooking.
- 2. To build the pizza, it should take 1 to 2 minutes, max. Fast building will ensure the dough doesn't get wet (from toppings) and stick.
- 3. Allow the dough to soften at room temperature for about 15 minutes. Hand stretch the dough until it's very thin and place onto a floured pizza peel.
- 4. Top as follows: Sauce, cheese mixture, sliced prosciutto, asparagus tips and stalk pieces (no woody part of stalk), shallots, goat cheese, Roma tomatoes.
- 5. Open the lid/cover and load the pizza onto the middle of the pizza stone, then close.
- After 30 to 45 seconds, open the door and slowly put the pizza peel under the pizza. Rotate the pizza 180 degrees and cook the other side of the pizza for approximately 45 to 60 minutes.
- 7. Continue to cook the pizza to your desired doneness. The process should take approximately 1 more minute. Close lid/cover.
- 8. Open the lid/cover and remove from the oven onto the pizza peel. Slide onto your cutting board and cut into 8 to 10 slices or squares. Garnish with the fresh-chopped parsley.

Notes: The lid/cover should be closed when the pizza is cooking. Only removed to load, unload and rotate the pizza

Pizza can be made using par-baked pizza dough, or store-bought fresh dough. For par-baked pizza dough, reduce cooking time to 2 to 3 minutes or until cheese is melted and bubbling. \*For the pizza peel, we use a 70/30 blend of flour and commeal to help keep pizza from sticking and help it slide onto the pizza stone easier. We use about ½ tablespoon per pizza, onto the pizza peel.





UPDATE

**YOUR** 

# PLATE WITH THE NUTRITIOUS EGG!

#### **Protein Packed**

6 grams per large egg and the least expensive source of high-quality protein at about 15 cents each.

#### **Nutrient Dense**

One egg has varying amounts of 14 essential nutrients, including choline and vitamin D.

#### **Portion Controlled**

Each nutrient-rich large egg has 70 calories. Eggs are nature's form of portion control.



Learn more about our organization, and more about the incredible, edible egg at www.coloradoeggproducers.com.





# One-Dish Roasted Potatoes and Apples with Chicken Sausage

#### Ingredients

- 3-4 red potatoes or your favorite variety, about 1 pound
- 1 tablespoon canola oil
- 2 red apples
- 1 yellow onion
- 4 chicken herb link sausages, about 12 ounces
- 2 tablespoons cider vinegar
- ½ teaspoon ground mustard
- 1 tablespoon honey

#### Instructions

- 1. Heat oven to 425 degrees.
- 2. Cut potatoes into chunks and place in a 2-quart baking dish. Drizzle with canola oil and toss to coat. Roast potatoes in oven for about 20 minutes.
- 3. While potatoes are roasting, cut apples and onion into chunks, and sausage into 1/2-inch slices.
- 4. Remove baking dish from oven and reduce heat to 375 degrees. Add all remaining ingredients to baking dish and toss.
- 5. Return dish to oven and roast an additional 30 minutes until apples and potatoes are tender.

Recipe courtesy of Colorado Potatoes=



We grow 'em, You love 'em! coloradopotato.org

Colorado Potatoes!

Learn the differences between readily available common cuts of meat

# **BEEF CUTS**

#### FILET MIGNON

Also known as tenderloin, this is a mild cut. A 1,000-pound steer only yields 7 to 10 pounds of filet, which is why it's more expensive.

#### **NEW YORK STRIP**

This cut is known for its robust flavor and dense texture.

#### RIBEYE

Ribeyes are a steakhouse favorite. Generously marbled with fat, the cut is juicy with a full-bodied flavor.

#### T-BONE

The difference between this bone-in cut and a Porterhouse is the latter contains more tenderloin.

#### SIRLOIN

This cut comes from the same part of the steer as the T-bone.

#### SKIRT

With an intense beefy flavor and sinewy texture, skirt steak is ideal for fajitas, satays and kabobs.

#### FLANK

This long, flat cut with a vertical grain can be chewy and benefits from a marinade. This cut gets stringy when overcooked.

#### **CHUCK**

This shoulder cut is a great choice for pot roast or stews. The texture and flavor stand up to long, slow cooking methods.

### **PORK CUTS**

#### **PORK CHOPS**

The most popular cut of the pork loin, the chop's name is determined by where in the loin it is cut. Examples are porterhouse,

#### LOIN ROAST

The loin roast is from between the pig's shoulder and the beginning of its leg. It can be sold bone-in or deboned.

#### TENDERLOIN

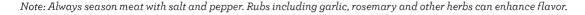
The tenderloin is one of the most tender cuts of pork. It should not be of a heat or it will get dry.



ribeye, sirloin pork chop and more.



cooked for too long or at too high





#### BACK RIBS



Also referred to as baby back ribs, back ribs are cut from the blade and center portions of the loin and are smaller than spareribs. They are known for the "finger meat" between bones and can be prepared with dry rubs or sauces.

#### SPARERIB



Spareribs are cut from the belly of the hog and are usually larger and meatier than back ribs. Spareribs can be prepared with dry rubs or with sauces.

#### HAM



Taken from the rear leg, the ham is usually cured, smoked or processed in some way. It can be dry-cured with rubbing salt and spices or wet cured.

#### BACON



The side portion, or belly, of the pig is cured and smoked until it becomes bacon.

#### SHOULDER



Cut from the shoulder area of the pig, the pork shoulder, also called pork butt or "Boston Butt," is a fairly tough cut that is well marbled.

# **LAMB CUTS**

#### CHOPS



Cut from the shoulder or the loin. chops require a shorter amount of cooking time than other cuts, making them an economical and flavorful choice for quick and easy meals.

#### RACK



There are 8 chops per rack and an American rack weighs about 2 pounds.

#### GROUND



Mellow and mildly flavored, ground lamb contains lean meat and trimmings from the leg, loin, rib, shoulder, flank, neck, breast or shanks.

#### SHANK



Lamb shanks come in both foreshanks and hindshanks. Lean on fat but big on flavor, the meaty shank is perfect for braising in a slow, simmering broth.

#### LEG



Available boneless and bone-in, the leg is perfect for roasting whole, trimming into kabob meat, individual chops or butterflying and grilling. A whole boneless leg of American lamb typically weighs 7 to 8 pounds.

#### FIND MORE ONLINE

Learn more about the different types of meat cuts, how to use them, and safe-cooking tips at COagriculture.com.

# SAFE-COOKING TIPS

#### Cooking Whole Cuts of

Pork: The recommended safe-cooking temperature for whole cuts of pork is 145 degrees Fahrenheit with the addition of a 3-minute rest time. Cook pork, roasts and chops to 145 degrees Fahrenheit as measured with a food thermometer before removing meat from the heat source, with a 3-minute rest time before carving or consuming. This will result in a product that is both safe and at its best quality.

Cooking Whole Cuts of Other Meats: For beef. veal and lamb cuts, the safe temperature is 145 degrees Fahrenheit, with a 3-minute rest time.

**Ground Meats:** Ground beef, veal, lamb and pork should be cooked to 160 degrees Fahrenheit and do not require a rest time.

**Poultry:** The safe-cooking temperature for all poultry products, including ground chicken and turkey, is 165 degrees Fahrenheit.

#### What Is Rest Time?

"Rest time" is the amount of time the product remains at the final temperature after it has been removed from a grill, oven or other heat source. During the 3 minutes after meat is removed the heat source, its temperature remains constant or continues to rise, which destroys harmful bacteria.

Source: USDA





# High-Performance

Wool's rebirth benefits Colorado producers

trong demand and record-high global prices signify the rebirth of wool, no longer the itchy, scratchy fiber of yesteryear. And Colorado wool growers are among those changing the face of the fiber.

Wool has woven its way into yearround fashions now that garment makers desire a natural material with moisturewicking properties, elasticity, and odor- and flame-resistant features. Improved manufacturing processes like "superwash" allow consumers to wash their own wool garments, as opposed to dry cleaning. And wool now touts next-to-the-skin comfort. contrary to former beliefs.

These traits make modern-day wool a sought-after fiber in active apparel lines like Nike, Puma, Lululemon and Under Armour.

"There is definitely a move for using natural fibers and wool for our clothing in summer and winter," says Julie Hansmire, owner of Campbell Hansmire Sheep LLC near Vail, where she raises Merino sheep, popular for their wool. "People are recognizing that wools aren't just for the heavy sweater. You're wearing it for your underwear and golf socks."

#### **Growers Strive for Better Wool**

Colorado consistently ranks among the top five states in wool production in the nation, producing 2.2 million pounds of wool in 2017, according to the National Agricultural Statistics Service, Ranchers here prove determined to raise the best balance of lamb and wool possible, says Ernie Etchart, a sheep rancher himself and president of the Colorado Wool Growers Association. The increase in wool value, though offset some by rising production costs, rewards and fuels ranchers' efforts.

"There is an upswing in trying to breed sheep for a better-quality wool," says Etchart, co-owner of Etchart Sheep Ranch in Montrose, where he and his brother raise Merino sheep. "Here in Colorado, we have some of the best production in the United States and, in my mind, it rivals some of the better finewool production coming out of Australia, the world's largest producer of wool."

Third-generation producer Angelo Theos began to breed Merino ewes for their fine-wool qualities in the 1970s and '80s near Meeker. He was determined to produce both quality wool and quality









"A lot of your sports apparel companies have recognized the unique qualities of wool keeping you cool when it's hot and warm when it's cool and wick away moisture in your body."

Ernie Etchart, president of the Colorado Wool Growers Association

lambs, against myths that growers could do only one or the other well.

"You get two paychecks per year," says Angelo, who has watched wool values grow 40 to 50 percent in 10 years. "You get a paycheck for your wool and you get a paycheck for your lambs. You want the most bang for your buck."

Today, the family sells lamb to national grocer Whole Foods and has watched "Colorado lamb" earn culinary accolades outside

state lines. On the wool side. the family built a shearing shed and formed a wool marketing group to classify and sell wool at a premium. The family, like other Colorado wool growers, shears ewes once per year ahead of lambing.

"Since it takes all year long to have our clip, we have several factors that influence wool quality," says Anthony Theos, Angelo's son. "It starts with breeding."

#### Management Matters in Wool Quality

Colorado claims an advantage in sheep genetics as home to Riflebased Jewell Merinos, a premium supplier of quality breeding stock to the U.S. sheep industry.

While the fine-wool Merino breed and genetics contribute significantly to wool quality, Colorado families recognize other details, too. The quality of the shear and the cleanliness of shearing facilities matter. Weather conditions and nutrition make a difference. Weed control and contaminants (like cocklebur and off-color wool) impact the quality and value of wool.

"We've all upped our game here in Colorado," Hansmire says. "We're constantly trying to produce the best ewe that can raise a couple lambs and can produce a beautiful fleece."

- Joanie Stiers









Value-added ag products offer increasing returns for producers and processors

or many Colorado farmers, ranchers and food companies, the opportunity to sell products internationally can make a significant impact on their bottom line. Currently, Mexico and Canada are top export markets, accounting for about half of Colorado's food and agriculture exports; however, the Colorado Department of Agriculture (CDA) has helped connect the industry with numerous business partners worldwide. Such recent initiatives include trade development missions to Cuba, a

"Colorado Pavilion" at trade shows in Singapore and London, and hosting buyers from Japan.

As one of CDA's experts in international trade, Tom Lipetzky, director of marketing programs and strategic initiatives, has traveled to about 50 countries and nearly every U.S. state. The experience has provided invaluable insights into different business practices and cultures, and has ultimately been an asset for CDA in promoting local ag and food products. With his help, and the help of his colleagues

John Addison and Ashley Warsh, these exports are hitting global markets primed for success.



Access to international markets has provided Colorado's large beef processing industry an opportunity to sell products that are not in high demand in the U.S. Distinctive products such as beef tongues and livers alone add up to about \$20 million in export sales.

"We often just think of exporting beef, but hides and skins exports totaled more than \$177 million in 2017. Most of the hides and skins end up as bags or purses, jackets, furniture,



The Colorado Department of Agriculture participates in a variety of trade shows to promote Colorado products to international buyers.

# TOP IMPORTERS OF COLORADO FOOD AND AG PRODUCTS (AS OF 2017)



Source: Colorado Department of Agriculture

and other leather goods manufactured in China and exported to countries around the world, including the U.S.," says Lipetzky. China imported \$110 million in hides and skins in 2017. "As beef is Colorado's No. 1 export, expanded global market access for beef is key to the continued growth of Colorado beef exports."

Another uncommon export, particularly among consumers, is millet. Proso millet is primarily used as bird feed; however, this whole grain holds potential for niche food markets due to its gluten-free composition. Colorado is the No. 1 producer of millet in the U.S., and millet exports brought in more than \$20 million in 2017 with significant amounts being sold to Indonesia, Malaysia and the Philippines.

Despite flying under the radar in the past, Colorado craft beer has been gaining recognition both nationally and abroad leading to dynamic export growth. "Beer exports were nearly \$48 million in 2017, up from about \$30 million in 2015 and 2016. Some of this growth is coming from our rapidly expanding craft brewers," says Lipetzky.

Lastly, Colorado is also often underreported as a significant exporter of fresh potatoes to Mexico due to the nature of these sales to distributors (i.e. credit goes to Texas or California). In fact, Lipetzky confirms, "Colorado is the No. 1 supplier of U.S. fresh potatoes to Mexico, regularly accounting for more than 50 percent of U.S. fresh potato exports to Mexico. We estimate

Colorado shipments to Mexico in 2017 totaled \$21.8 million," he says, making these high-quality spuds another important contributor to economic growth.

#### **Exporter of the Year Award**

This past year, CDA recognized two organizations that had been instrumental in promoting their industries internationally with Exporter of the Year awards. The Colorado Beef Council was recognized in the New to Exporting category and the Colorado Potato Administrative Committee (CPAC) in the Experienced Exporter category.

CPAC has demonstrated their commitment to growing exports by bringing reverse trade missions from Mexico and Central America into the San Luis Valley to showcase the crop and skilled shippers. CPAC Executive Director Jim Ehrlich finds that "it makes a big difference when potential buyers can see the crop and how it is grown in person."

From grading standards to the inspection process to acquiring the necessary phytosanitary certificate, Ehrlich advises new exporters to understand the risks involved and know where to go for help. He adds, "We are very thankful that we have the support of the CDA's Market Division. We could never do this work without their superior expertise."

- Keri Ann Beazell

# The Birds and the Bees Do your part to help protect pollinators

ees, butterflies, birds - one out of every three bites of food that we eat is thanks to these pollinators, who are needed to pollinate crops. Without them, we wouldn't have fruits, vegetables, nuts, oils or flowers. Not only would our bounty be less diverse, but the agriculture industry would

struggle, as those crops contribute \$24 billion to the U.S. economy. Pollinators facilitate the reproduction of roughly 80 percent of all flowering plants and pollinate plants that animals feed on as well. These tiny creatures play a huge role in sustaining the ecosystems for life on earth.

Lucky for Colorado, the state is home to a diverse group of pollinators, including 946 species of native bees, 250 species of butterflies, more than 1,000 species of moths and 11 species of migrating hummingbirds.

#### **Protecting the Pollinators**

In recent years, pollinator populations, especially honey bees, have been struggling due to disease and more. Colorado's own Rice's Honey and Butterfly Pavilion's PACE Initiative are teaming up to promote the benefits of pollinators in an effort to help reverse this decline. PACE stands for Pollinator Awareness through Conservation and Education, and Rice's is donating a portion of proceeds from every bottle of honey sold.

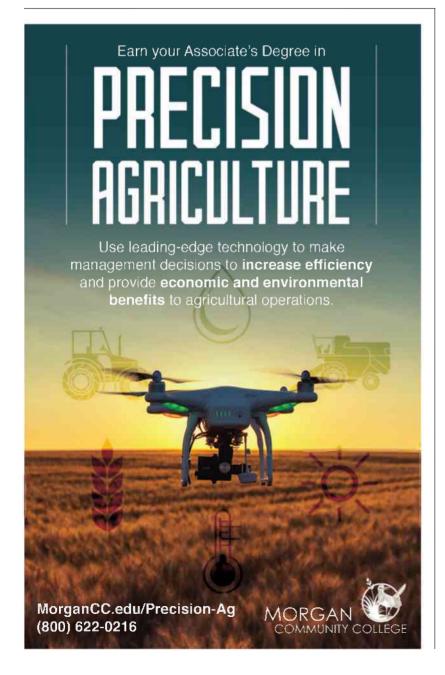
The PACE initiative works to restore habitats, strengthen populations and reintroduce pollinators to native habitats around the globe. Rice's Honey has always had a mission to promote pollination and sustainable bee farms, so the partnership makes sense.

#### Support the Bees

Consumers can do their part to protect pollinators as well. Colorado State University designed a pollinator-friendly garden on its campus in the fall of 2017, with attractive plants including verbena, English lavender and bee balm. These are varieties that consumers can easily plant in their own home gardens as well, that are attractive to both pollinators and humans.

Learn more about pollinator health and how to help at colorado. gov/pacific/agplants/apiaryprogram-page.

- Rachel Bertone





Want to stay in touch with Colorado food, farmers, and ranchers? Here are a few ways to get started:

#### Shop at a Farmers' Market

With more than 100 farmers' markets across the state. it's easy to buy fresh, local produce, meats and other foods in Colorado. Find a farmers' market near you at coloradofarmers.org.

#### Keep Learning

Ag in the Classroom provides agricultural education to students across the state. For more information, visit growingyourfuture.com.

#### **Buy Local Products**

Want to support producers in your state? Discover products made in Colorado at coloradoproud.org.

#### Visit a Farm

Picking berries, exploring a corn maze, sipping delicious wines - these are just some of the fun things to do on farms. To learn more about Colorado agritourism, visit coloradoagritourism.org.

#### Share Infographics

Download shareable graphics featuring the state's top 10 ag products, seasonal produce calendars and more at COagriculture.com.

#### Stay in Touch

Keep up with the wide-ranging efforts of the Colorado Department of Agriculture at colorado.gov/agmain.

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American AgCredit anloan.com

Colorado Corn coloradocorn.com

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Colorado Farm Bureau coloradofarmbureau.com

Colorado FFA Foundation coloradoffafoundation.org

Colorado Potato Administrative Committee coloradopotato.org

Colorado Rural Electric Association сгеа.соор

Colorado State Fair coloradostatefair com

Colorado State University agsci.colostate.edu

Colorado Wheat coloradowheat.org

Common Ground

findourcommonground.com Country Home Products Inc.

Morgan Community College morgancc.edu

Otero Junior College oic.edu

**Premier Farm Credit** premieraca.com

