A Salute to the DAIRY INDUSTRY



A supplement of the Cortland Standard Thursday, June 4, 2020

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We Salute the Cortland County Dairy Industry



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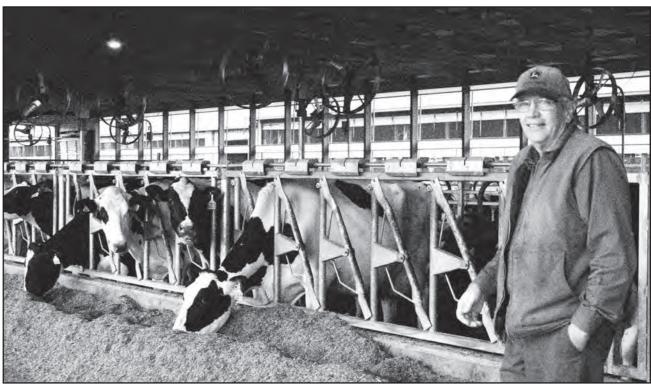


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Dairy E Cortland Standard E Thursday, June 4, 2020





S.N. Briere/staff reporter Stewart Young, an owner of East River Dairy in Homer, talks about the various technologies and other items the farm has implemented in its free stalls to keep their cows comfortable.

Water beds, pedicures, cool breezes — it's all in the daily life of a cow

By S.N. BRIERE Staff Reporter sbriere@cortlandstandard.net

They get water beds, their hooves trimmed and to sit in the cool with fans blowing and the shades down when it's hot out.

No it's not a cow spa day, it's just how they live.

Keeping cows comfortable is one of the most important jobs for dairy farmers.

"A happy cow can produce more milk," said Stewart Young, an owner of East River Dairy in Homer, which has 1,500 milking cows and 1,300 calves — one of the largest operations in Cortland County.

Over the decades, Young has learned about what makes cows happy. The farm recently built another free stall barn—this time with 15-foot side walls. Studies show that higher walls allow more air to circulate.

It's something Mike McMahon, an owner of E-Z Acre farm in Homer,

Work with a dairy specialist

Who: From:	Betsy Hicks Cornell Cooperative
	Extension
	djh246@cornell.edu
Phone	607-391-2660

learned about during a 1993 conference in southern Pennsylvania, where Dan McFarland, an agricultural engineer educator at Penn State Extension spoke.

"He was one of the pioneers in changing stall design and stall coverings," McMahon said.

After hearing McFarland speak, McMahon invited him to his farm, where McFarland helped McMahon build one a 14-foot free stall barn in 1995 — one of the first in the state.

Before that, McMahon had been milking his then 320 cows in four

older bank-style barns that could get damp and even cause issues with pneumonia.

But height isn't the only thing farmers must think about when building their stalls — stall dimension and design is also critical.

"You want to have them as open as possible, McMahon said.

Part of that is ensuring the cows have enough space to roam, lie down and stand up.

When free stalls were first built, the stalls were only about 3 1/2 feet wide by 6 feet long, now they're at least 4 feet wide and up to 8 feet long — giving cows enough room to move.

Young said the stalls must also allow cows to stand up easily, ensuring they don't hit their head as they use their back legs to push themselves up. But Young also found a thick rubber pipe along the bottom of the stalls "that's not as aggressive

See COMFORT, page 5

Meet the Dairy Princess candidates



Photo provide

Name: Blaine DuVall **Age:** 16 Home: Taylor Parents: Naomi Gaines and Kevin DuVall Farm organizations: Three-year dairy ambassador Activities: Cincy Country Kids 4H Club, French club, cheerleader, painting Future plans: My future plans are to help run A New Leaf

Greenhouse in Cincinnatus and before that attend college to further my education in the horticulture science and business areas.

Why do you want to be a dairy princess? I want to be a dairy princess so I can become better at public speaking and so I can help the dairy community in my county and the srrounding area by promoting milk products.



Photo provid

Name: Abbey Augur **Age:** 16 Home: McGraw Parents: David and Samantha Augur The farm: 200 acres, 130-150 Holstein and beef cattle **Experience:** 40 years in farming Farm organizations: Farm Bureau and Holstein Association Activities: Varsity soccer, National Honor Society, Environmental Club, Student Council vice president, FBLA treasurer Future plans: I would like to attend college and play soccer.

Why do you want to be a dairy princess? I want to be a dairy princess because I grew up on a dairy farm and my dad has been a dairy farmer his whole life. I want to promote the quality milk he works so hard to produce.



The deliciousness of dairy Milk adds body and texture to cooking

By COLIN SPENCER Staff Reporter cspencer@cortlandstandard.net

From breads to cinnamon rolls and cookies, Rebekah Brown uses milk in a variety of forms for goods sold at her farm's store.

"Almost everything we make has some sort of dairy in it," said Brown, an owner of Trinity Valley Dairy in Homer. All of it is made from the farm's own milk.

Milk and the variations of it — cream, cheese, butter, buttermilk — can fulfill different roles in recipes. These can include texture and taste, but can also fulfill more scientific roles, said Mary Kiernan of Homer, an associate teaching professor in the Nutrition & Food Studies program at Syracuse University.

"Milk has its place in the culinary world," she said.

Kiernan, a chef certified by the American Academy of Chefs who teaches a course that involves students learning how to run and serve in a restaurant setting, said milk's flavor and ability to bind ingredients in recipes makes it useful in cooking. And then there's the nutritional value, including more protein than nondairy substitutes.

While there aren't many challenges cooking with milk, it can scorch if one is not careful to adjust heat, Kiernan said. Also, its fat can start to break if the temperature is too high.

When it comes to what type of milk

to use in a recipe, Kiernan sticks to the book.

"If it calls for heavy cream, I'm using heavy cream," she said.

While different types of milk can be substituted, this in most cases changes the fat content. That, in turn, affects the flavor and texture. For example, whole milk used in a recipe will provide a thicker texture and heavier flavor than skim milk.

Non-dairy substitutions can be used, like almond milk, but "It totally depends on the outcome" desired by the chef, she said.

In Brown's case, she uses whole milk in her recipes.

"It gives a richer, moister product," she said.

Her biggest milk challenge? Not having it on hand. But as owner of a dairy farm that's constantly producing milk, that's not much of an issue.

And like Kiernan, Brown doesn't stray away from the recipe.

"I wouldn't put buttermilk in a recipe that just called for milk," Brown said.

Using milk for cooking rather than other liquids like water can add nutrients, said Peter Zon, the owner and keeper, along with being the chef, of the Benn Conger Inn in Groton.

Some of the most popular dishes at the inn are the seven-onion soup and lobster

See DELICIOUSNESS, page 5



Ileanna Hopkins spreads icing inside the kitchen of Trinity Valley Dairy in Homer.

PATE au CHOUX

Recipe provided by Mary Kiernan

1 cup milk		
1/2 cup	butte	
1/2 tsp.	salt	
1/2 cup	flour	
4 eggs		

Heat the milk and the butter together with the salt in a pan on the stove. The pan needs to be large enough to hold the flour with room to stir aggressively. Once the milk and butter are hot and melted, add the flour and stir to combine until it is very smooth and begins to come away from the sides of the pan as you stir it.

When all is smooth, bring it off the heat. Transfer it to a mixer with the paddle attachment. Stir around to cool it down a bit, begin incorporating the eggs one at a time, allowing the mixture to get smooth between each addition.

Pipe or scoop out onto parchment paper and bake in a preheated 425-degree oven until they are uniformly brown. If they look "glisteny" (as if sweating) continue to bake them dry. You may have to turn the oven down. You can also let them cool with the oven off.

It is important to thoroughly bake them or they will collapse. The tendency is to take them out all puffed and golden in color. Go just beyond that to where you feel they are going over.





COMFORT

continued from page 2

and stops them from going too far forward." It's also comfortable for the cows to rest their heads on.

Having the cows lay down as much as possible is the goal.

Cornell University professor Tom Overton said a study by the William H. Miner Agricultural Research Institute in Clinton County shows a relationship between cow resting time and milk production.

"The more time a cow rests or lies down in her stall chewing her cud, the more milk she'll make," Overton said. That is because less nutrients are needed for walking and therefore more can be used for milk production.

But getting cows to rest involves giving them a good bed to lie on.

McMahon said beds used to be made out of concrete and straw — some farmers even used dirt. As time went on though, the material for beds changed. Young said he's been using water beds for about 10 years now. McMahon uses a rubber bed.

"We have to keep going back and realizing we have a 1,500-pound animal standing on her legs and we have to keep the legs and joints healthy," McMahon said. The best way to keep those legs and joints healthy is by keeping the cows off of them when they're not being milked.

The cows also need their hooves trimmed. Young and McMahon's farms share the same hoof trimmer who comes every few weeks. Without the trimming the hooves would keep growing, causing the cow to push back on its leg, making it uncomfortable.

Cows also can't get too hot. In fact,

cows like it chillier than most humans anywhere from 20 to 60 degrees is satisfactory for them.

"When you get into the 70s, they can start to have problems," Young said.

"Cows are actually pretty susceptible to heat stress," Overton said. Their thick fur, which keeps them warm in the winter, can overheat them in the summer.

To keep them cool, farms have installed fans in their barns and shades on them. Many of the fans now installed are variable-speed fans which can be more cost effective than one-speed fans. At East River Dairy, Young said he has installed shades reduce the amount of sun or even rain getting into the barn.

McMahon and Young said misters can also be used to cool cows.

Betsy Hicks, a dairy specialist with Cornell Cooperative Extension, works with farms to determine best practices. She said of the around 87 farms in the county she's probably spoken with most of them to figure out "how can we apply that research, how can we apply that knowledge?"

So, what's the cost of making the cows happy?

It depends on how you look at it. Young spent around \$700,000 on his new barn to hold more than 200 cows.

McMahon said farmers should always look at ways to improve.

"If you're sitting still, then you're basically going backwards," he said.

But really the measurement of cost could come down to how much milk a happy cow can produce.

"The cost of making them comfortable is always less than the cost you will realize if they're not," McMahon said.



The effects of dairy on the body are numerous, and the following are just some of the ways that the various nutrients and vitamins in dairy can have a positive impact on you and your body.

CALCIUM

Various dairy products, including low-fat milk, yogurt and cottage cheese, are rich in calcium. The USDA notes that the body uses calcium to build bones and teeth and maintain bone mass.

VITAMIN D

Dairy products that are fortified with vitamin D can help to build and maintain healthy bones. Milk, soy milk and certain yogurts and cereals are among the products that may be fortified with vitamin D.

Potassium

According to the USDA, certain dairy products can be great sources of potassium. The organization notes that milk and yogurt have more potassium and less sodium than cheeses. Diets that include sufficient potassium have been linked to healthy blood pressure.

DELICIOUSNESS

continued from page 4

omelette with asparagus and hollandaise, he said.

Milk makes the batters, and it makes scrambled eggs fluffier.

Besides, Zon said he likes to support local dairy farmers, including Byrne Dairy, which is where he gets all of the milk the inn uses.

But the recipe determines the type of milk he uses, like heavy cream in soups. "It helps thicken cream soups," he said.

He tends to use whole milk for its flavor, and skim milk is usually out of the question.

"The consistency doesn't have that fat content to it," he said.

Cobblestone Valley Farm Salutes and Thanks All Cortland County Dairy Farmers During 2020 Dairy Month in these uncertain times.

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Today's Cortland County dairy landscape

By BETSY HICKS Contributing Writer

Dairy farms have always been the visual cornerstone for Cortland County. Today, this is still the case, as our 87 dairies have stayed the course even through some very trying times recently. Issues facing our farmers include 5 years of low prices in the marketplace, labor shortages, and rising costs and interest rates, all while trying to understand what Mother Nature is throwing at them with climate change and changing weather patterns. Even through these hardships and trials, know that our local dairy farmers take their calling very seriously, and strive to provide the

very best care to their animals, the utmost attention to their fields and provide a safe and wholesome product to consumers in the form of nature's most perfect food, milk.

Our dairy landscape has gradually changed throughout the past few decades. These changes, even between two agriculture censuses, are slight but show progress from our local dairies. In 2012, Cortland County showed 91 dairy farms; this number fell by 4 to 87 dairies in 2017. The number of cows in Cortland County, however, actually grew by over 1800 cows in five years, to 12,157 dairy cows counted in the 2017 Census of Agriculture.

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As many of us shelter at home our Farm Families have been working tirelessly seven days a week throughout this current crisis to ensure we have food on our tables. These farmers have remained dedicated to helping others, often while not receiving enough compensation to support their own families. Your support of our farm families and business means they can continue to provide for your families for



generations to come. We are proud to have served our farming community for over 40 years.

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Even though about 75% of our Cortland County farms are still under 100 milk cows, farm size continues to shift. In 2012 about 40% of our farm were less than 50 cows, and in 2017, over half our cows now are in the 50-100 cow herd size farm. Eight farms in our county are over 500 cows, up by 2 compared to 2012.

Statewide, there were 4,648 dairy farms and over 628,000 dairy cows counted in 2017. Farms and cows in Cortland County represent just under 2% of the total number of farms and cows in NYS. As a county, we rank 18th out of 51 counties in NY with total head of milk cows. Nationally, Cortland County ranks #162 out of 1,892 counties in the country with dairy cows. Dairy farms in our county sold

over \$49,892,000 worth of milk in 2017, over 70% of total ag receipts in Cortland County, a huge part of our local economy.

A drive through our county on any highway shows the importance and beauty our dairies bring to our local landscape. We are blessed with wide open expanses of green, blue skies above herds of black & white cows grazing and ball-cap headed farmers hard at work in the fields. I raise a glass of nature's most perfect food and toast them: Thank you for all you do to make Cortland County's landscape beautiful.

Betsy Hicks is a Dairy Specialist with Cornell Cooperative Extension. She can be reached at 607.391.2673 or bjh246@cornell.edu.

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Got dairy questions?

By BETSY HICKS Contributing Writer

While the internet can be a trove of information on most any topic, sometimes it can be really hard to judge how credible the source is. With that in mind, I compiled a short list of trustworthy resources for those who have questions about dairy farming, as well as a few processors who package milk and milk products from Cortland farms!

TRINITY VALLEY - ROUTE 13, CORTLAND trinityvalleydairy.com/

Trinity Valley offers "over 100 years of family tradition" from their Cortland County dairy, in the form of farm fresh milk, cheese curd & baked goods. From their website, their farm/creamery "is also the first and only 'jugger,' an endearing farm term for family operations that bottle milk straight from the cow." Their website has plentiful pictures and video from the farm and bottling operation. If you have questions, the family who runs Trinity Valley will be sure to answer them.

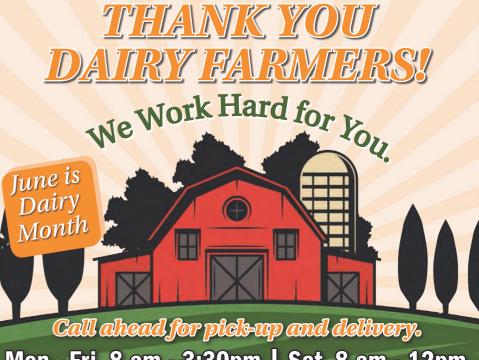
BYRNE HOLLOW FARM -ROUTE 13, CORTLANDVILLE www.byrnehollowfarm.com/our-farmers

While the processing plant on Route 13 south of the city of Cortland looks somewhat removed from the idyllic scenes of dairy farming, know that farms right in Cortland County produce much of the milk that goes into their yoghurt and bottled milk. Two local farms that represent the spectrum of dairy in Cortland County are featured on their Farmer Website — the Waltz Dairy in Cincinnatus and McMahon's E-Z Acres in Scott. Both families work to provide a wholesome product for families in New York.

See QUESTIONS, page 10



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Cortland Standard file photos ABOVE/BELOW: John Schlenke and Evan McKalsen, both 3, play along with the band in 1991 and 2012. LEFT: 1970 Dairy Princess Michelle Armstrong is crowned. RIGHT: Delta Barber, 3, waves to the crowd in 2008.



The streets may be quiet now, but the Dairy Parade will return. Until then, enjoy these memories of past parades and princesses









Cortland Standard file photos ABOVE: Judy Mable with her children, from left, CHris, TIm and Laura, watch in 1993. RIGHT: David Brown IV, 1 1/2, with his dad, David Brown III, at the 1995 parade.



Corey Jenney, left, and Crystal Noto march in 2011.



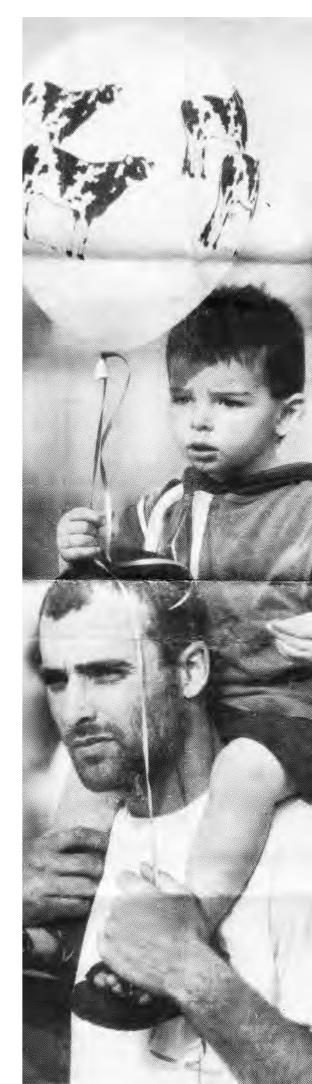
Dorothea DeHart is crowned dairy princess in 1971.



Courtney Randall is crowned in 2014.



Parade participants roll along in 1980.





Farm offers new opportunity

By KEVIN CONLON **City Editor**

kconlon@cortlandstandard.net Dana Brown had worked with dairy farmers for decades as a feed salesman, first for his family business, Round House Mill in Cortland, and more recently for Keystone Mills in Romulus and Moravia.

Brown admired the work that farmers did and got to know many of them.

On March 14, his interest developed into a career when he became a farmer himself, leasing the barn and pasture owned by Doug and Martsje Riehlman on Route 11 in Preble and buying the Riehlmans' herd.

"That was the first time I milked a cow," Brown said.

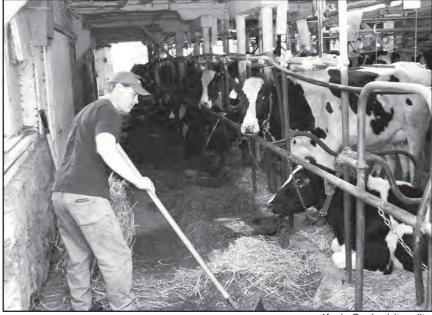
He now cares for a herd of 42 cows, 40 of which are producing milk.

"I like the animals," Brown said. "I figured my family could be involved. I could spend more time with my family."

While much of the dairy industry has taken a significant hit in recent months as sales dipped during the coronavirus pandemic, Brown, 55, has weathered the troubles as his farm is organic and demand for organic milk has held steady.

"It didn't really affect me," Brown said recently as he cleaned out the stalls in the afternoon as he prepared to milk his herd, which he estimates produce an average of 50 to 60 pounds of milk per cow each day.

Brown said he had known the Reihlmans and Doug Reihlman's father and uncle. When he heard



Kevin Conlon/citv editor

Dana Brown cleans the stalls as he prepares to milk his herd of 40 cows. Brown had been in feed sales for decades before getting into farming himself on March 14 in Preble.

Doug and Martsje Riehlman wanted to retire, he decided to take the leap.

"They were going to sell out," Brown recalls. "I thought and decided to do it."

The Reihlmans have been helping Brown get acclimated to the business.

He is also assisted by his wife, Louisa, and daughter Kendall, who help around the farm.

The Browns live in Scott, 11 miles away from the farm.

While it was not a consideration in his decision to get into dairy farming himself, Brown said his great-grandfather, Homer Jones, ran a farm on Route 41 in Homer. Jones also ran feed mills, bottled milk and helped other people get into the business of farming.

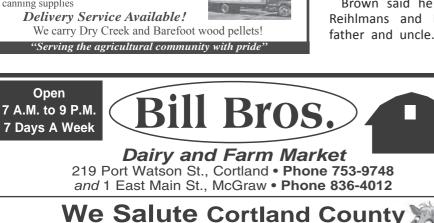
Brown's day on the farm begins at 5 a.m and he starts milking the cows at 5:30 - a second milking is at 4:30 p.m. Each takes a half hour to 45 minutes.

He is continuing to work his job in sales part time for Keystone Mills, where he has worked since his family's feed mill closed in Cortland in 2012 after being in business since 1965.

Brown also raises nearly 20 beef cows at his home in Scott.

Becoming a dairy farmer has meant longer hours for Dana Brown, but he said he enjoys the work, despite having to get up earlier each day.

"I like it," Brown said. "I don't like 4:30 in the morning."



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QUESTIONS

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NY ANIMAL AG COALITION www.nyanimalag.org/blog

The NY Animal Ag Coalition is the place to head when you have hard questions about current events. Their blog posts help give background information on questions such as "why are farms dumping milk?" or "how are dairy calves cared for?" They also are the face behind the NYS Fair's Live Birthing Center, where they host a chance for people to watch calves being born every day during the NYS Fair, and a live feed of the tent where the cows are housed at the fair so you can watch at home, too.

AMERICAN DAIRY ASSOCIATION NORTHEAST www.americandairy.com

ADANE is a special resource to find stories on dairy families, learn about the Dairy Princess Program, watch videos about local farms' efforts to protect the environment and water quality, as well as virtual farm tours and delicious recipes. Dairy foods, dairy health and dairy farms are just a few of the things you'll find on their website.

CORTLAND COUNTY DAIRY FARMERS

There is no website for Cortland County Dairy Farmers, but know that if you have a guestion it's always best to ask a farmer and not Google. If you don't know a farmer, call me at Cornell Cooperative Extension in Cortland and I can put you in touch with one. All you have to do is ask!

Betsy Hicks is a Dairy Specialist with Cornell Cooperative Extension. She can be reached at 607.391.2673 or bjh246@cornell.edu.



Cornell helps farmers be more Earth friendly

By SAM FEELEY Sports Reporter sfeeley@cortlandstandard.net

The production of dairy in upstate New York leads to large amounts of nitrogen and phosphorus flowing into waterways.

As nitrogen and phosphorus runoff from cattle's waste flows into the Susquehanna River and continues into Chesapeake Bay, algae forms that can choke the aquatic life.

Two Cornell professors set out to reduce nitrogen and phosphorus output at dairy farms, and released their findings in a study last year. Their process is now used to fee nearly two-thirds of the dairy cows in North America.

Michael Van Amburgh, professor of animal science, and Larry Chase, professor emeritus of animal science, helped create the Cornell Net Carbohydrate and Protein System, a new method of feeding dairy cattle that reduces protein intake while at the same time reducing nitrogen and phosphorus output without sacrificing the quality of the dairy products.

In their study, the protein content in the cattle feed was reduced to 14.9% from 16.3%. As a result, cows at the eight participating Southern Tier farms reduced their nitrogen output 14%, without affecting the quantity or quality of the milk.

"The rumen microbes do a great job of converting what the cow consumes into what the cow needs to make milk, and milk synthesis is highly conserved, so the characteristics are similar for most cows," Van Amburgh said.

NATIONAL BENEFIT, LOCAL ORIGINS

Initiatives like the CNCPS are especially important at farms like EZ Acres in Homer, one of the northernmost farms in the Chesapeake Bay watershed.

"Due to our precarious location we are a dairy farm sitting in a position where we could make life miserable for a lot of people," EZ Acres' Mike McMahon said.

EZ Acres drains into watersheds for Chesapeake Bay, Factory Brook, the Tioughnioga River, Grout Brook, Cayuga Lake and Skaneateles Lake, the latter of which is the unfiltered water supply for the city of Syracuse.

"It is for all these reasons that in 1997 Cornell University approached us to be their case-study farm for environmental stewardship, which we have been for the last 23 years," McMahon said. "In 1997, we embarked on a voluntary well and stream sampling project pulling samples from five wells the length of the aquifer and both streams to ensure that our agronomic practices were causing no detriment to the water supply."

As a result, EZ Acres saw its nitrates drop from 16 to 9 parts per million, and was one of the first farms in the country to drop the use of phosphorus by more than 30%.

For its efforts, EZ Acres

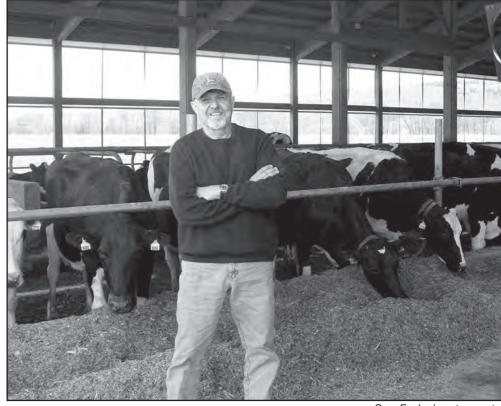
won the 2009 Cornell University Pro-Dairy Agriservice Award, the 2013 Skaneateles Watershed Environmental Farm of the Year, the 2015 New York State Environmental Management Farm of the Year, the 2017 American Dairy Association Northeast U.S. Environmental Farm of the Year and the 2018 United States Dairy Sustainability and Environmental Farm of the Year.

GREEN BRINGS GREEN

Now its reaping the rewards of the new Cornell feed system. Not only does the CNCPS produce environmental benefits, it produces economic benefits. Farms are more efficient, feeding three times as many people with about one-third the number of cows.

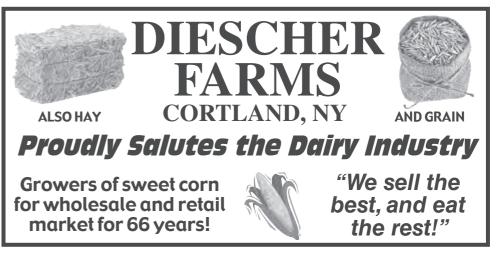
"The feeds available on the farm are better allocated to the cattle based on the approach used in the model to estimate nutrient supply," Van Amburgh said. "It will demonstrate to the nutritionist or dairy producer the value of purchasing

See CORNELL, page 12



Sam Feeley/sports reporter

Mike McMahon of EZ-Acres Farm in Homer stands with his cows. His farm has won awards following research that can lead to both better milk production and less nitrogen and phosphorus leaching into the water table.





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Environmental



CORNELI continued from page 11

higher quality, higher digestibility ingredients which then allows for greater efficiency of use by the cow and thus, less waste and excretion to the environment."

The difference in the feeds is not simply a matter of specific ingredients, he said, but how the feed is prepared so the animal can better use it.

"We went from 25 million cows in 1944 to 9 million cows while feeding three times as many people, so the efficiency gains over the last 60 years have been phenomenal," Van Amburgh said. "The industry continues to make progress in reducing the environmental impact of milk production through these new tools and management changes."

COWS — THE RECYCLER Cows themselves also play a large part in reducing food

waste, because anywhere from 30 to 60 percent of a cow's diet are by-products of human food.

"The cow and all livestock are the recyclers or up-cyclers of the vast amount of by-products produced in the human food chain," Van Amburgh said. "The cow should be getting credit for this disposal of the waste stream and not penalized for making our food less expensive because there was value to the by-product that could then be

used to produce more food." Cows also help reduce waste from the production of almond milk, which is more taxing on the environment, according to Van Amburgh.

"The water demand for one liter of almond beverage is 1.000 liters whereas it is 10 liters for one liter of milk," Van Amburgh said. "On a protein basis, it is half a liter of water per kilogram of protein for milk and 106 liters of water per kilogram of protein for almond beverage."

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In 2018, California produced 2.264 billion pounds of almonds, Van Amburgh said. "The byproduct of that was 4.53 billion pounds of hulls and 1.6 billion pounds of shells. That is 2.26 million tons of hulls and the only disposal for them is to feed them to cows in California. So if there were no cows in California, they would have no means of disposing of the almond hulls that are highly digestible in the rumen and are then converted into milk."



Thank you to our local dairy farmers.









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Industrial

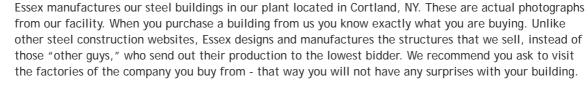


Storage



Commercial







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