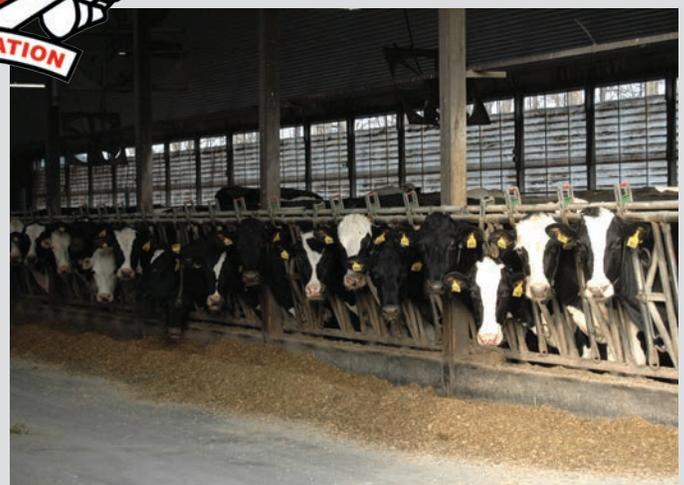


# The William H. Miner Agricultural Research Institute



*Carrying on William Miner's vision of science  
and technology in the service of  
agriculture and the environment.*

## 2017-18 Annual Report



# MESSAGE FROM THE CHAIR

***“No other occupation is so vitally important to the human race, nor requires such a wide range of practical and technical knowledge, as farming.”***

It has been more than 100 years since William Miner made that statement in 1915, but the relevance is just as real today as it was then. The main difference in 2018 is that so many fewer people are actually involved in agriculture; therefore awareness of the importance of farming is arguably not as prevalent in society as it was then.

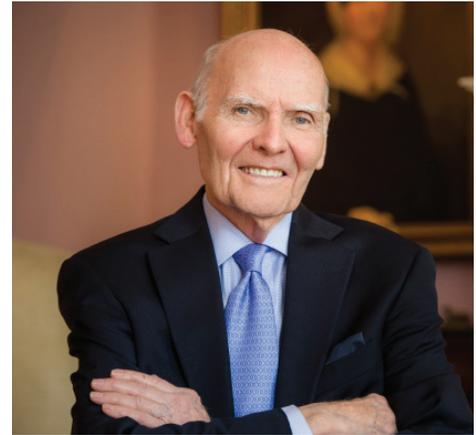
We feel it is important to engage with the public and educate them about agricultural practices. We are open to the public and we host numerous events each year that bring members of the farming community, school groups, and the general public to Miner Institute to develop a better understanding of food production, agriculture, and the lasting legacy of William and Alice Miner to the North Country.

In 2017, we held a variety of events that helped to broaden public awareness about Miner Institute and agriculture including an Agriculture in Society lecture with Dr. Joe Schwarcz of McGill University; an open house in our historic horse barn that celebrated the Morgan Horse breed; and a screening of the dairy farming documentary, *Forgotten Farms*.

Additionally, we have put a renewed focus on charitable contributions to the community over the last couple of years. In 2017, we hosted Comedy for a Cause and raised \$1100 for the local chapter of the United Way; we hosted the Strides for James event for the fourth year; and as a staff we built bikes that were donated to foster families at Christmas time.

We are fortunate to have a staff who are committed to the mission of Miner Institute and are passionate about what they do and enjoy sharing their knowledge with others.

— Dr. Joseph C. Burke  
Chair, Miner Institute Board of Trustees



# PRESIDENT'S MESSAGE

We had another outstanding year at Miner Institute.

I am amazed at what our modest-sized staff of about 55 people is able to accomplish in research, education, and demonstration. In 2017 we had 70 students enrolled in our educational programs – that includes undergraduate, graduate students, and interns. These students participated in our Advanced Dairy Management semester, Applied Environmental Science Program, year-long internships, and Summer Experiences in farming, equine management, and agricultural research. At least half of the cows in the region are touched by a Miner graduate and we take special pride in the leadership role that our network of alumni plays.



In 2017 we garnered approximately \$700,000 in research support through grants, facilities, and equipment. One million dollars of research income flowed through the budget in 2017 – an all-time high for us. We built research bunker silos, brought our nutrient management field research sites to a total of four, and enhanced our milk analysis program. While conducting the research, our staff managed to make 74 presentations to various scientific and industry groups and write 67 papers.

In the past year, 3760 people came through our stone gates to attend a program or visit our Heritage Exhibit. In all, nearly 40 events were held at the Institute. Dairy Day, Crop Congress, the Dairy Nutrition Short Course, and Equi-Day focused on our industry friends while other programs engaged the community such as our Agriculture in Society speaker series or the Day of the Morgan Open House. Increasingly we have engaged with the dairy industry and the community at large to educate and advocate for agriculture.

Of course, the full story for any organization lies behind the numbers. But, these few metrics tell me that the Institute is on-track and that our staff does a great job. We have much planned for 2018 – so if you have questions about the range of Miner Institute programs, please feel free to contact us. And, if you find yourself in the beautiful Champlain Valley, please stop in and experience for yourself the outstanding facilities, grounds, programs, and staff of Miner Institute.

– Dr. Rick Grant  
President, Miner Institute



# EDUCATION

In 2017, 70 students participated in our educational programs. This includes six Advanced Dairy Management students; 12 summer experience students; 40 Applied Environmental Science students; six year-long interns who have finished their undergraduate degrees; and five graduate students.

To learn more about our education programs visit [whminer.org/education](http://whminer.org/education)

## Advanced Dairy Management Program

The Advanced Dairy Management program, a 15-credit course is a combination of 5 classes offered at Miner Institute. The course is designed to help meet the changing needs and challenges of the dairy industry. The dairy industry today requires greater technical education and knowledge, is operated on borrowed money for expansion to stay competitive, resulting in market forces that demand educational programs in dairy production to remain relevant to the industry. Training leaders of the future is an important part of what we do in our education programming.



**From L-R:** Evan Roe, Jonas Hastings, Nicholas DeGraaf, Courtney Banach, Matthew Montgomery, Wanda Emerich, and Allen Wilder.

*“My time at the Miner Institute has helped me grow as a person, a student, and a contributor to the agriculture industry. The connections that I made at Miner have allowed me to be a more informed member of the community. The knowledge I gained from Miner will serve me well in providing an informed standpoint, as well as a good understanding of how to communicate information to my peers.”*

— 2017 student testimonial

## 2017 FLANAGAN SCHOLARS

A \$1.3 million donation from the late Stephen Flanagan in 2015 established a scholarship fund to help support Miner Institute’s education programs. The scholarship is named after Mr. Flanagan and his parents, Stephen S. Flanagan and Frances B. Flanagan. In 2016, dairy intern Emma Duffy was awarded the first Flanagan scholarship. Emma wrapped up her year-long internship at Miner in early 2017 and moved back to the Boston area to work on a 60-cow dairy farm managing milking, feeding, and breeding. In 2017, Wyatt Smith and Victoria Vendetta were recipients of the Flanagan scholarship. Wyatt is a graduate student at Miner Institute with an animal science degree from the University of Minnesota; he is pursuing his Master’s at the University of Vermont in dairy nutrition, focusing on fiber digestibility. Victoria is an alumna of the Advanced Dairy Management program with an animal science degree from the University of Connecticut; she started a year-long dairy internship at Miner in 2017 and hopes to apply to vet school after completing her internship at Miner Institute.



The first recipients of the Flanagan scholarship at Miner Institute. **From L to R:** Emma Duffy, Wyatt Smith, and Victoria Vendetta.

## Summer Experience Programs

The summer experience programs offer students a 13-week paid internship focused on either dairy farm management, agricultural research, or equine management. Students from around the country apply for the highly competitive internships.

In 2017, we welcomed 12 students from a multitude of universities. Participating in the Summer Experience in Equine Management were Lauren Offutt, Colorado State University; Sam Berube, SUNY Cobleskill; Megan Miller, Clemson University; Karen Bonhomme, Plattsburgh State University; and Kyle Pimentel, University of New Hampshire. Participating in the Summer Experience in Farm Management were Christina Markunas, Michigan State University; Abby Maucieri, Virginia Tech; and Mayumi Marzolf, University of Missouri. Participating in the Summer Experience in Agricultural Research were Ben Henrichs, Southern Illinois University; Breanna Watson, Mississippi State University; Gabbie Green, University of Tennessee; and Courtney Hoff, Cornell University.



**Back row L to R:** Lauren Offutt, Sam Berube, Ben Henrichs, Breanna Watson, Christina Markunas, Megan Miller, Gabbie Green, and Kyle Pimentel.  
**Front row L to R:** Karen Bonhomme, Courtney Hoff, Abby Maucieri, and Mayumi Marzolf.

*"I literally spent every single day this summer with cows, excluding one Saturday. It makes me giddy just thinking about it. I feel comfortable doing so many things I was only observing back at the farm at my university... I was promised by several people that Miner would take my breath away, and that I would never want to leave. Those individuals were correct."*

— 2017 student testimonial

## Applied Environmental Science Program

The Applied Environmental Science Program features courses taught on a full-day basis; the format allows integration of theory developed in lectures with hands-on experience in indoor and outdoor labs dealing with soil, water, forestry, and the agriculture-environment interface.

Courses offered as part of the 2017 program were Forest Ecology and Management with Dr. Mark Lesser; Agriculture and the Environment with Stephen Kramer; Water Quality and Modeling with Fritzie Rivas; Wetland Ecology and Management with Dr. Mary Alldred; Soil Science with Dr. Eric Young, and Wildlife Ecology and Management with Dr. Danielle Garneau, which was offered on campus in 2017.



**Back Row L to R:** Dr. Edwin Romanowicz, Dr. Andrew Buckser, Aaron Thomas, Andrea Long, Michael Shepard, Alexis Clune, Rachel Penders, Derek Kluge, Rachael Greminger, Patrick Bly, Alex Sweet, and Mark Haney.

**Front Row L to R:** Stephen Kramer, Dr. Mary Alldred, Dr. Danielle Garneau, Dr. Mark Lesser, Fritzie Rivas, Cheryl Donah, Dr. Eric Young.

*"The AESP here at Miner focuses on education through fieldwork experience, a method which I found to be extremely effective. I was also introduced to the field of agricultural science, a field that has truly sparked my interest; I believe that my time at Miner has helped me broaden my scientific interests, potentially leading to many more opportunities in the future."*

— 2017 student testimonial

# RESEARCH

William Miner's vision for Heart's Delight Farm in 1928 was to provide "opportunities ...for experimental and research work in order that it may serve to advance the science of agriculture." Today, Miner Institute proudly carries on his noble mission. Our highly-regarded professional staff, exceptional technical staff and well-managed dairy herd and crop program combine to support a unique research model focusing on the interface of crops, animals and nutrient management. The results for most of the research conducted by Miner Institute are reported to the public through scientific meetings and journals or through the monthly Farm Report available on our website at [whminer.org](http://whminer.org). In 2017, Miner Institute conducted nearly \$1 million dollars' worth of research in the areas of dairy nutrition, equine nutrition, animal well-being, forage crop production, and nutrient management.

In 2015, the USDA AFRI Animal Well-Being Program Area awarded funding for a collaborative grant submitted by The Ohio State University, University of Tennessee and Miner Institute entitled "The effect of visual seclusion and stocking density on the behavior and welfare of transition dairy cows". As part of this grant, Miner Institute began a year-long study in 2017 that will determine if high stocking density in an indoor group pen increases stress and restricts natural calving behavior and whether providing a visual hide in an indoor pen can reduce stress and facilitate more natural calving behaviors. Results from this project will create foundational knowledge about the natural calving behavior of dairy cows, as well as practical and novel housing recommendations for dairy producers to improve the welfare of their animals at calving. Continued support from the Northern New York Agricultural Development Program provided the opportunity to evaluate the impact of heat stress on dairy cattle well-being on farms with differing heat abatement systems in Northern New York.



Research continues to expand the use of mid-infrared technology to analyze milk and develop models which would enable producers to detect health problems in individual cows or monitor nutrition and management practices on a whole herd basis. The continued collaboration between Dr. Dave Barbano, a dairy food scientist at Cornell University, and Dr. Heather Dann of Miner Institute, has provided useful information for dairy nutritionists and producers to maximize the performance and efficiencies of their animals in a challenging dairy economy.



Miner Institute has evolved into a leader in dairy cattle nutrition when it comes to fiber and fiber digestibility. In 2017, studies were conducted to evaluate fiber digestibility of different corn hybrids grown in Northern New York. In addition, the impact of feeding differing levels of fiber fractions on animal performance was also investigated. This information is valuable for dairy producers to maximize the feed quality of forages grown on the farm and reduce the amount of purchased feeds.





Environmental concerns about the impact of nutrient loss of phosphorus and nitrogen from tile-drained fields on the Lake Champlain watershed have been a focus of several research projects conducted at Miner Institute over the last few years. Through funding support from NRCS, Lake Champlain Basin Program and NNYADP, fields have been equipped with autosamplers and instrumentation that measures waterflow from surface and sub-surface (tile) runoff which provides a comprehensive understanding of pathways for nutrient loss needed to establish best management practices for farmers to retain these valuable nutrients on their fields.

In 2017, additional research evaluated the use of cover crops to mitigate the loss of nutrients from fields in corn silage production and transport of fecal coliform and E. coli bacteria in surface and subsurface runoff from tile-drained fields. Regulatory agencies and legislative bodies are using this information to better understand the complicated dynamics of nutrient flow in fields as they create laws and rules that regulate agricultural practices to improve water quality.



In 2017, four horizontal feedbunks, which hold 100-150 tons of forage, were constructed to accommodate forage treatments used in dairy cattle feeding trials thanks to the generous support received from Lallemand Specialties, Inc. All four bunks were filled with corn silage and are being used for two different feeding trials in 2018.



Two equine nutrition-based studies were conducted in 2017. A preliminary examination of serum Vitamin E levels in Miner Institute's Morgan herd found varying levels of deficiency. Donations from horse enthusiasts and the Champlain Valley Morgan Horse Association helped support a study that investigated different protocols for economical supplementation of Vitamin E in Morgan horses.



# DAIRY

The Miner herd finished out 2017 with 30,108 pounds of milk, 1241 pounds of butter fat, and 919 pounds of protein: After a year off rBST we are only 10 lbs. less milk from 2016, components held strong with 4.1% fat and 3.1 % protein. The average milk price for the year was a little above \$18.30 per hundredweight (cwt), which was up from 2016. Making several management changes has helped to maintain milk production going into 2017. One of the changes was to our reproduction program, decreasing the voluntary waiting period to get cows bred back sooner and that increased our current pregnancy rate to 29 percent.



In 2017 we built another 35 x 200 foot bunker silo and 4 small research bunks. We are able to separate out the high quality hay and corn silage at harvest time, allowing us to maximize the percentage of forage in our diets and use the small bunks for research trials.

Multiple research projects requiring feed and dietary changes and pen moves were conducted again this year. Fulfilling our mission of education, research, and demonstration is a challenge that certainly sets us apart from average dairy farms. We rely on a knowledgeable and flexible dairy and crops staff to meet our goals and maintain our successful program.



Our milking herd has grown to 460 cows with total animal numbers climbing to 858. We dealt with yet another challenging cropping year in Northern New York. Heavy rains again this spring made it difficult to get corn planted. Hay fields yielded well in part due to the abundant rainfall and long fall. We were able to harvest a 5th cut of alfalfa. We grew 300 acres of alfalfa grass, 231 all grass, and 443 acres of corn.

Three summer intern students were guided by our staff learning how to milk cows, feed calves, and maintain a healthy herd. The field crops staff worked with the students teaching them about growing and harvesting crops – everything from picking rocks and preparing the ground to mowing, merging, and chopping hay crop silage. Many of these students have never driven a tractor before, so they gain practical, hands-on experience in how a modern production dairy farm operates. Most of these interns go on to work in the dairy industry in some capacity. Students will train an animal for showing at our local fair, which is usually the highlight of their summer. We also visited area farms to expose them to different ways of farming.

Overall, it was another highly successful year for the dairy operations at Miner Institute.



# EQUINE

As students are the main product of the equine program, it seems fitting that so many past students contributed to the successes of 2017. Between great visits, guest lectures, and sales, the year was filled with connections.

EquiDay is our annual spring conference where invited speakers share knowledge with area horse owners. In 2017, Dr. Lynn Geoffroy spoke on caring for the senior horse. Dr. Geoffroy participated in the SEEM as a pre-veterinary major at UVM before heading to Purdue for her DVM degree. Now a practicing veterinarian, assistant professor at SUNY Cobleskill, and accomplished equestrian it was a thrill to have her back in Chazy. Another EquiDay speaker, Sharon Wilsie, newly published author of *Horse Speak: The Equine-Human Translation Guide*, proved so popular and helpful that we invited her back for two hands-on clinics later in the year.

Our stallion and mare station services continue to help the local horse owners produce and promote their stock. In addition to our Morgan Horses, we saw horses of all breeds come through our barn doors; from the Friesian and Dutch Warmblood, to the Connemara and Arabian, these services fill a need in the community as well as providing a wide variety of experiences for our equine management students.

The Heart's Delight herd saw some big changes as well in 2017. The first foal born was colt by the World Champion Western Pleasure stallion, Privilege and out of UVM Loyalty; HD Freedom was named under the HD prefix after being generously donated to Miner by Paradise Morgans. UVM Loyalty was re-bred to our own leased stallion, Canon, due in May of 2018. Our second foal was a strikingly marked chestnut filly out of Sugarlane Dominique and by Townshend Rob The Wave. "Robbie" has one foal due in 2018 at the Townshend Morgan Farm in Bolton, MA. Our filly, HD Waverly, will be the final HD-prefixed horse by him, as Townshend Rob The Wave was humanely put to rest over the summer. We will forever be grateful to Nancy Caisse for leasing "Robbie" to us for so many years. He produced the same lovely, trainable temperament that he showed to us every day in the barn and with multiple student riders. Sugarlane Dominique was also bred back to Canon for a third full-sibling of a proven cross due in late May. Our heroic nurse-mare of 2016, UVM Kimberly will get her chance to really shine as a producer and mother as she is bred to Privilege for an early June foal. Finally, we couldn't miss the opportunity to breed to a son of Legacy's Viking; early June will bring the birth of DPR Noble Viking's first HD prefixed foal out of Spring's National Velvet.

Several Miner Morgans were sold in 2017, four out of five of them to first time Morgan owners! HD Irondale, HD Harmony, HD Bliss, HD Victory, and HD Brandy Brook are all happily settled into their new lives with their new people. Our well-wishes to outgoing Director of the UVM Morgan Horse Farm and long-time friend of Miner Institute was made ever more sweet as Steve Davis agreed to present our colt, HD Freedom, in the prestigious NY Morgan Stallion Service Auction Breeder's Sweepstakes weanling class in September. Under Steve's expert guidance and handling, HD Freedom made the call back to the finals placing 10th out of 19 very competitive foals.



Sugarlane Dominique with HD Waverly



Photo Credit: Saddle Horse Report

HD Freedom



**Rest in Peace  
Townshend Rob the Wave  
"Robbie"  
1996-2017**



# 2017 YEAR IN REVIEW

In 2017, we hosted 38 educational, research, and community events that attracted nearly 3,800 visitors to Miner Institute. Here are some of the highlights from 2017:

## **JANUARY**

- Hosted local comedy group Completely Stranded as a benefit for the United Way of the Adirondack Region.
- Hosted the annual Cornell Maple School for regional maple producers.
- Advanced Dairy Management semester started.

## **FEBRUARY**

- The annual Crop Congress meeting attracted 100 attendees.
- Hosted a tour with Ritchie Feed and Seed with about 40 participants.

## **MARCH**

- Hosted a tour of around 20 high school students from Chateaugay Central School.
- Our annual EquiDay seminar attracted 60 equine enthusiasts.
- Hosted a meeting for Lallemand Animal Nutrition.

## **APRIL**

- Hosted an Agriculture in Society speaker series featuring Dr. Joe Schwarcz from McGill University. We had nearly 100 attendees. Dr. Schwarcz discussed agricultural myths and facts.

## **MAY**

- Hosted the Fifth Annual Strides for James charitable 5K/10K race. More than 200 runners participated.
- Hosted cyclists from the Adirondack Mountain Club for a tour of the barns and Heritage Exhibit.
- Summer Experience semester started.

## **JUNE**

- Participated in the annual Museum Days event with around 100 visitors to the Heritage Exhibit over the course of the weekend.
- Hosted more than 500 regional fifth grade students over three days for the 35th annual Farm Days for Fifth Graders event.
- Hosted tick researcher Melissa Stone for an informative talk about ticks and Lyme Disease in the North Country. We had about 60 attendees.

## **JULY**

- Participated in the Clinton County Fair in the horse and dairy cattle shows.

## **AUGUST**

- Hosted a group of 60 Franklin County day campers for a tour and field activity.
- Hosted a collaborative manure applicators workshop with Cornell Pro Dairy, Clinton County Soil and Water Conservation District and the Lake Champlain Basin Program.
- The Applied Environmental Science Program semester began.

## **SEPTEMBER**

- Hosted a tour with the Adirondack Architectural Heritage Group.

## **OCTOBER**

- Hosted a screening of the dairy farming documentary Forgotten Farms, followed by a Q&A with the director, producer, Miner Institute President Rick Grant, and local dairy farmer and Miner Member Tony LaPierre.
- Hosted students from Chazy Central Rural School kindergarten, first grade, and fifth grade classes as part of Miner Day celebrations.
- Hosted more than 100 people to celebrate the Day of the Morgan Horse. We had a scavenger hunt, crafts, and plenty of horses to visit!

## **NOVEMBER**

- Hosted the Cornell Feed Dealer meeting with about 35 participants.
- Participated in Equine Affaire in Springfield, MA to promote our equine program at Miner Institute. The event attracts thousands of equine enthusiasts and students.

## **DECEMBER**

- The annual Dairy Day meeting attracted 120 attendees.

# 2017 ACCOMPLISHMENTS

## Day of the Morgan Horse

A beautiful fall day — temperatures near 65 with lots of sunshine — certainly helped to broaden the smiles on the faces of visitors to the October 28 Day of the Morgan at Miner Institute.



The event was a national celebration of the Morgan horse breed, organized by the American Morgan Horse Association. Dozens of barns around the country opened their doors to the public to inform and educate about Morgan horses.

Our event featured a barn-full of Miner Morgans; a scavenger hunt; crafts for kids and delicious fall refreshments — apple cider, McIntosh apples, cider donuts, and Cabot cheddar cheese! We welcomed more than 100 visitors into our historic horse barn, some of whom were visiting Miner Institute for the first time.

## Celebrating 30 years of the Summer Experience in Equine Management



Alumni from Miner Institute's Summer Experience in Equine Management program attended a 30-year reunion celebration at Miner on Aug. 5, 2017. Alumni traveled from Colorado, Kentucky and various parts of the Northeast to attend. Carrie Ostrowski (back row, fourth from the left) spent the summer of 2008 at Miner Institute as a Summer Experience in Equine Management student and then returned in late summer 2009 as the year-long equine intern. She returned to Miner for the reunion and said, "It's like coming home."

# COMMUNITY CONTRIBUTIONS

## Strides for James

In May, the Institute once again hosted the *Strides for James* charity run, a 5K/10K/ fun run that raises funds for the James Wilson Memorial Scholarship at Clinton Community College. The scholarship provides an opportunity to channel James' giving spirit and help others. James Wilson was an avid outdoorsman with a kind heart who was killed in a motorcycle accident in 2012. More than 200 runners and about 300 total people attended this event at the Institute. We will host the 6th Annual Strides for James May 12, 2018.



## Rotary Bed Race

Miner Institute was thrilled to participate in the 8th Annual Rotary Club of Plattsburgh Bed Race in September. The event takes place on City Hall Place as part of the Battle of Plattsburgh events. Miner Institute's team, *Miner Threat*, included Keegan Griffith, Ashley Cate, Wyatt Smith, Kyohei Ishida, and Kate Creutzinger. The team made it into the second round, before being knocked out. A good time was had, for a great cause, and we plan to be back bed racing in 2018!



## Team Building - bikes for foster children

In December, our staff put together four bicycles that were donated to foster children in Clinton County. It was a great experience for our staff for a great cause. We worked with the United Way of the Adirondack Region to help us place the toys with families in need in time for Christmas. United Way partnered with Clinton County Department of Social Services to identify foster families to donate the toys to.

"It is nothing short of remarkable that Miner Institute's employees coordinated with the United Way in utilizing time and resources to provide less fortunate children with something special... Your generosity and kindness also reminds caseworkers of the community spirit Clinton County truly exemplifies and makes them proud of what our community does every year at Christmas," wrote Christine Peters, Director of Legal and Social Services at the Clinton County Department of Social Services in a letter of thanks to Miner Institute.



# OUTREACH

In 2017, nearly 3,800 people attended an event at Miner Institute or visited the Heritage Exhibit.

We sent out 12 press releases which resulted in several news articles. Additionally, an event we hosted led to an interview and story on Mountain Lake PBS's *Mountain Lake Journal* and our new hydro power exhibit was the focus of an interview for Home Town Cable.

We participated in both of New York State's Path through History weekends – one in June and one in October. We brought in a tick researcher and expert from SUNY-Albany to give an informative talk about ticks and Lyme Disease to staff and the public and hosted a screening of the dairy farming documentary *Forgotten Farms* in October.

We helped to represent agriculture on the Adirondack Coast at the annual Farm Bureau Taste NY event in Albany and participated in a Visit the Adirondacks day at the Saratoga Race Course in August. We also participated in several career fairs for local high school students.

## Farm Report and Stable Sheet Newsletters



The Miner Institute *Farm Report* is a monthly dairy newsletter sent to more than 2000 subscribers worldwide. It is written primarily for farmers and other agricultural professionals in the Northeastern U.S. and Eastern Canada. Most articles deal with dairy and crops topics, but also included are articles dealing with environmental issues and global agriculture as well as editorial commentary. Articles are frequently re-printed in other industry publications.

The *Stable Sheet* is a semi-annual newsletter for both equine owners and industry professionals. It provides practical information on all aspects of horse care, from breeding to training to health and safety. We also share challenges we've faced and offer insight on how to prevent the same from happening to others. The *Stable Sheet* also promotes equine events sponsored by Miner Institute and the University of Vermont.

The *Farm Report* and *Stable Sheet* can be found online at [www.whminer.org](http://www.whminer.org)

## Farm Days for Fifth Graders & High School Chemistry Program



The annual Farm Days for Fifth Graders event began in 1982. Our mission in this program is to help students to become more aware of agriculture in our community and the impact on our daily lives. In 2017, we had nearly 600 fifth grade students participate.

Area high school juniors and seniors take part in four "hands-on" learning labs dealing with water quality and pollution from various sources as part of our High School Chemistry Program. The goal of the program is to teach students to engage in math and science rather than be afraid of it by doing activities rather than having them explained. In 2017, 45 students from two area schools participated.



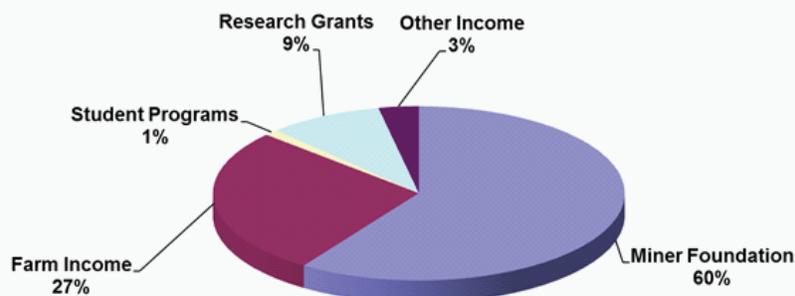
# COLLABORATION

- Adirondack Farms  
Peru, NY
- Greg Albrecht  
NYS Soil & Water  
Conservation Committee
- Dr. Mary Alldred  
SUNY Plattsburgh
- Eileen B. Allen, GISP  
SUNY Plattsburgh
- Marie Audet  
Blue Spruce Farms
- Dr. Dave Barbano  
Cornell University
- Tom Barber  
Crop Production Services
- Dr. Gary Bergstrom  
Cornell University
- Eric Bever  
Champlain Valley Agronomics
- Mary Breyette  
CCE, Clinton County
- John Brouillette  
Mycogen Seeds
- Christine Bush  
North Country Hay Bank
- Dave Bush  
Page Seeds
- Dr. Larry Chase  
Cornell University
- Lallemand Animal Nutrition
- Sue Chagnon  
Eastern Mtn. Ranch Horse  
Association
- Allison Chatrchyan  
Cornell Institute for Climate  
Change & Agricultural  
Climate Change
- Mike Contessa  
Champlain Valley Agronomics
- Linda Corey  
Fairfax, VT
- Chuck Custeau  
Yankee Farm Credit
- Karl Czymmek  
Cornell Pro Dairy
- Dr. Josie Davis  
University of Vermont
- Dr. Mike Davis  
Cornell University
- Steve Davis  
University of Vermont  
Morgan Horse Farm
- Brett Denny  
Vermont DHIA
- Dimock Farms LLC  
Peru, NY
- Dr. Pascal Drouin  
Lallemand
- Dr. Jen Dulin  
Vermont Large Animal Clinic
- Mark Eddy  
Seedway
- Jerry Emerich  
Select Sire Power
- Dr. Joshua Faulkner  
University of Vermont
- Lindsay Ferlito  
CCE, Regional Dairy Specialist
- Luiz Ferraretto  
University of Florida
- Anita Figueras  
CCE, St. Lawrence County
- Dr. Andrea Formigoni  
University of Bologna
- Claude Fortin  
Mycogen Seeds
- Dr. Dave Franzi  
SUNY Plattsburgh
- Paul Frederick  
Paul Frederick Productions
- Dr. Paul Fricke  
University of Wisconsin-Madison
- Dr. Danielle Garneau  
SUNY Plattsburgh
- Dale Gates  
USDA-NRCS
- Dr. Lynn Geoffroy  
SUNY Cobleskill
- Larry Geohring  
Cornell University
- Dr. Francis Glenn  
Glenn Seeds
- John Gloss  
Dairy One
- Art Graves  
Mycogen Seeds
- Dr. Stefan Grimberg  
Clarkson University
- Dr. Russ Hahn  
Cornell University
- Hidden View Farm  
Champlain, NY
- Mike Hunter  
CCE, Jefferson & Lewis  
counties
- Hutchins Family Farm  
Malone, NY
- Kyohei Ishida  
Zen-Noh
- Jane Jackson  
Bookends Farm
- Dr. Dan Jaynes  
USDA-ARS
- Brian Jerose  
WASTE NOT Resource  
Solutions
- Ivor Jones  
Select Sire Power
- Jason Karszes  
Cornell Pro-Dairy
- Dr. Quirine M. Ketterings  
Cornell University
- Tom Kilcer  
Advanced Ag Systems
- Dr. Peter Krawczel  
University of Tennessee  
Knoxville
- Joe Lawrence  
CCE, Lewis County
- Dr. Sam Leadley  
Attica Veterinary  
Associates
- Dr. Mark Lesser  
SUNY Plattsburgh
- Dr. Cathy Lombardi  
The Oaks Veterinary  
Clinic
- Steve Mahoney  
River Bend Ag &  
Environmental Services
- Molly McCue, DVM, MS,  
Ph.D., ACVIM  
University of Minnesota
- Dr. David Mertens  
Mertens Innovation
- Joe Monroe  
Nutrena/ Progressive Feeds
- Dr. Steve Mooney  
Morrisville State College
- Dr. Kimberly Morrill  
CCE Regional Dairy Specialist
- Dr. Andrew Novakovic  
Cornell University
- Dr. Tom Overton  
Cornell University
- Dr. George Palmer  
Palmer Veterinary Clinic,  
Veterinary member of Miner  
Institute's Animal Care & Use  
Committee
- Dr. Sammy Pittman  
Innovative Equine Podiatry  
and Veterinary Services
- Dr. Katy Proudfoot  
The Ohio State University
- Barry Putnam  
Farm Credit East
- Phyllis Recor  
Community Member of the  
Miner Institute Animal Care  
and Use Committee
- Fritzie Rivas  
SUNY Plattsburgh
- Dr. Shane Rogers  
Clarkson University
- Dr. Ed Romanowicz  
SUNY Plattsburgh
- Jon Rooney  
Monument Dairy
- Dr. Don Ross  
University of Vermont
- Rusty Creek Farm LLC  
Chazy, NY
- Dr. Nichol Schultz  
University of Minnesota
- Dr. Joe Schwarcz  
McGill University
- Dr. Jessica Scillieri Smith  
NYS Department of  
Agriculture and Markets
- Molly Scoville  
Merck
- Dr. Randy Shaver  
University of Wisconsin  
Madison
- Dr. Elson Shields  
Cornell University
- Dr. Charlie Sniffen  
Fencrest, LLC
- Melissa Stone  
SUNY Albany
- Carol Tetreault  
Adirondack Tack
- Ev Thomas  
Oak Point Agronomics
- Rachel Tomko  
Seedway
- Dr. Tom Tylutki  
AMTS, LLC
- Dr. Mike van Amburgh  
Cornell University
- Dr. Harold Van Es  
Cornell University
- Dr. Philip van Harreveld  
VT Large Animal Clinic,  
Equine Hospital
- Sean Wallace  
Champlain Valley Agronomics
- Dr. Robert Whitlock  
University of Pennsylvania
- Erik Whittaker  
Poulin Grain
- Sharon Wilsie  
Wilsie Way Horsemanship
- Katie Woods  
Novus
- Jessica Ziehm  
NY Animal Agriculture  
Coalition
- Bill Zweigbaum  
Farm Credit East

# FINANCIAL SUMMARY

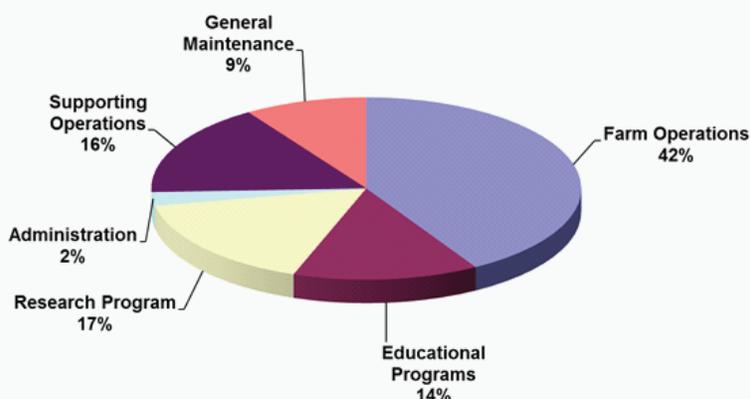
Miner Institute's primary source of revenue is from The William H. Miner Foundation Trust established in 1923. The contribution from the Miner Foundation has in recent years accounted for 60-65% of the Institute's overall revenue. In 2017, the overall contribution increased by approximately 2% and accounted for 60% of the Institute's revenue. Farm operations contributed 27% of overall revenues, up from 25% in 2016. Total farm income increased by nearly 17% in 2017 due to a slight increase in milk production and an 11% increase in average milk prices. Research Income increased 26%, in 2017, to just over \$821,000 which represents 9% of the Institute's overall revenue.

**The William H. Miner Agricultural Research Institute  
2017 Revenue**



Miner Institute's farm operations accounted for 42% of overall operating expenses and revenue from these operations offset 78% of these expenses. The Institute's research projects including funded as well as in-house research represented 17% of the 2017 operating budget with 74% being offset by research grants. Various educational programs offered throughout the year at Miner Institute made up 14% of our operating expenses with the majority of these programs (91%) being funded by the contribution from The William H. Miner Foundation.

**The William H. Miner Agricultural Research Institute  
2017 Expenditures**



## SUPPORT

- Dr. Kenneth Adams
- Adirondack Tack
- AgriMark
- AMTS LLC
- Dr. Joseph and Joan Burke
- Nancy Caisse  
Townshend Farm
- Champlain Valley Morgan Horse Association
- Corning Life Sciences
- Doug and Adrienne Gable
- Leatherstocking Morgans
- Lallemand Animal Nutrition
- Microflex Corporation
- Glenice E. Morris
- RUM&N SAS
- Thermo Spectronic
- Patricia Waring
- Zen-Noh

# CONGRATULATIONS TO ...

**Kayla Hultquist, MS**



Kayla came to Miner as a research intern in September 2015 after completing her masters in biological sciences with a specialization in dairy science from South Dakota State University. She accepted a job at Furst-McNess Company in Freeport, IL as a Research Assistant/Lab Technician in March 2017. She uses in vitro fermentation and NIR analysis to evaluate current and new products along with feed ingredients. She also assists with calf trials evaluating nutrition and management techniques.

**Emma Duffy**



Emma came to Miner as a dairy intern in January 2016 after earning an animal science degree from the University of Vermont. She wrapped up her internship in March 2017. Emma now works as a herdsman for Hornstra Farms, a 60-cow tie stall farm south of Boston, MA. She manages milking, feeding, and breeding. The farm bottles milk and has a delivery service for its customers. Hornstra Farms also produces butter and ice cream.

**Samantha Dobbins**



Samantha was a Summer Experience in Equine Management student in 2014. She earned a degree in equestrian studies and equine business management from Averett University and returned to Miner Institute as the year-long intern in September 2016. Samantha now works for Hilltop Farm in Colora, MD. It is a large breeding and training farm that specializes in dressage horses. Samantha is part of a team responsible for daily care and training of about 40 young horses age 6 months to 3 years.

**Mackenzie Campbell, Ph.D.**



Mac was a graduate student at Miner from August 2013 to August 2017. After earning his Ph.D., Mac is now employed with Cargill Animal Nutrition as a Dairy Technical Specialist. His work includes on-farm consulting, nutritional training and technical support.

**Keegan Griffith**



Keegan was a graduate student at Miner from May 2014 to November 2017. He works as a land treatment planner and cartographic technician for the Vermont Association of Conservation Districts. He helps to create land treatment plans for farms in Addison County, VT and works in the Middlebury office. Keegan will be finishing up his thesis and defending for his masters later this year.

# HEART'S DELIGHT FARM HERITAGE EXHIBIT



We had another successful Heart's Delight Farm Heritage Exhibit season in 2017. Most notable was the addition of a special hydropower exhibit featuring a model of the McGregor power system that William Miner built in 1922.



Events such as Strides for James in May, Farm Days for Fifth Graders in June, and the October Day of the Morgan Horse event each brought hundreds of visitors to the exhibit.

Additionally, we participated in Museum Days in June with numerous other participating museums in Clinton County. This year, Museum Days corresponded with New York State's Path Through History Weekend. We also participated in the second Path Through History Weekend in October. The two weekend events together brought more than 200 visitors to the exhibit.



The Heart's Delight Farm Heritage Exhibit is open to the public weekdays from May through October. The gardens and Wayside Walk are open year-round. We welcome the public, groups, schools and clubs to visit us to learn more about William and Alice Miner and their contributions to the North Country.

# BOARD OF TRUSTEES & OFFICERS

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Miner Foundation Trustee,  
Chair Miner Institute

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Northern Insuring Agency

Rocklyn Giroux  
Co-owner, Adirondack Farms

Bernard Leerkes, Jr.  
Co-owner, Leerkes Dairy Farm

Ann M. Willey, Ph.D., J.D.  
Adjunct Professor, Albany Law School

Frederick Woodward, Ph.D.  
Retired Chief  
Collegiate Administrator

Geoffrey Yates  
Retired Senior Vice President/  
Chief Strategy Officer  
Yankee Farm Credit

Janet Duprey  
Retired State Assemblywoman

Steven G. Frederick  
Vice President for Institutional  
Advancement,  
Clinton Community College Foundation

## OFFICERS

Richard J. Grant, Ph.D.  
President

Rachel Dutil  
Secretary

Kirk E. Beattie  
Vice President,  
Administration & Finance



**Pictured (L-R):** Dr. Rick Grant, Kirk Beattie, Richard Eakins, Bernard Leerkes, Rocklyn Giroux, Janet Duprey, Roderic Giltz, Dr. Joseph Burke, Geoffrey Yates, Dr. Frederick Woodward, and Steven Frederick.  
**Absent:** Dr. Ann Willey

## MINER MEMBERSHIP

John Ettling, Ph.D.  
President, Plattsburgh State University

Perry J. Kurtz, Ph.D.  
Retired Pharmaceutical R&D Director

Tom Overton, Ph.D.  
Professor, Animal Science  
Cornell University

Carol F. Harrell  
Community Volunteer

William L. Owens  
Retired U.S. Congressman, NY 23rd District

Brendan P. Owens, Esq.  
Attorney at Law  
Stafford, Piller, Murnane, Kelleher & Trombly PLLC

Tony LaPierre  
Owner, Rusty Creek Farm

# EMPLOYEES & YEARS OF SERVICE

## FACULTY/RESEARCH

Katie Ballard, M.S.	30
Amy Bedard, M.L.S.	11
Amber Bornt	<1
Maggie Carter	21
Heather Dann, Ph.D.	13
Jeff Darrah	15
Wanda Emerich, M.Ext.Ed.	30
Heather Gauthier	17
Jered Green	1
Charlie Hacker	1
Laura Klaiber	9
Lisa Klaiber	9
Stephen Kramer, M.S.	23
Michael Miller	<1
Sheila Mousseau	5
Alexander Pape	<1
Andrew Whitney	3
Eric Young, Ph.D.	8

## ADMINISTRATION

Kirk Beattie	17
Rachel Dutil	8
Rick Grant, Ph.D.	14
Laurie Miller	34

## PHYSICAL PLANT

Jared Ashline	10
Brian Bechard	36
Daniel Belrose	17
David Boulerice	29
Steve Fessette	36
Mark Gonyo	17
Adam LaCount	8

## AGRICULTURE

Shawn Bechard	12
Shaun Castine	8
Bethann Buskey	14
Steve Couture	12
Frank Decoteau	<1
Carl Duprey	1
Andrew Guerin	2
Scott Guerin	<1
Kristup Kalvaitis	10
Sara Kerrick	<1
Ralph LaBombard	13
Justin LaValley	3
Casey Mahony	<1
Bryant Meseck	<1
Henry Meseck	33
Anna Pape	9
Eric Rowe	<1
Cody Seymour	1

## EQUINE

Karen Bonhomme	<1
Machaelene Booth	<1
Karen Lassell	22

## FOOD SERVICE / HOUSEKEEPING

Tammy Allen	9
Hope LaForest	19
Michelle Miller	5

## GRADUATE STUDENTS

Casey Corrigan	
Wyatt Smith	

## INTERNS

Victoria Vendetta, Dairy	
Lindsey Bjorgan, Equine	
Ashley Cate, Research	
Katie McMahon, Research	



# The William H. Miner Agricultural Research Institute



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[www.whminer.org](http://www.whminer.org)**

