

2015 Elected Officials Tour

Resource speakers:

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Wayne Whitman

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Klaas Vanderploeg grew up on a dairy farm in the Netherlands. Mares was born and raised in Welland, Ontario. They met when Mares, who was at the time studying animal science at the University of Guelph in Ontario, traveled to the Netherlands to work on his dairy farm. In 1991, after purchasing the Pendell Dairy Farm, they, along with oldest son Tony, moved to Gratiot County. Klaas and Mares have four children; Tony, Hank, Louise and Alex. All four have either graduated from or are currently attending MSU. In 2011 Tony graduated with a degree in Agribusiness Management and returned to help manage the farm.

Current farm operation:

2,700 milk cows

72 cow carousel milk parlor

2,400 acres crops

600 acres corn purchased for silage

40 employees

Over the years the farm gradually expanded from the 181 cows the Vanderploeg's were milking in 1991 to 1,700 cows in 2005. In 2012 they added two new barns, a carousel milk parlor and expanded to 2,700 cows. Manure at the new facility is separated into liquid and solids to reduce odor and the dried manure solids provide a sustainable source of bedding.



Animal care, nutrition, health and comfort are all components of a successful dairy farm. Cows on the carousel are more relaxed during the milking process. Recycled drywall is added daily to the free stalls to maintain cow health. All employees are taught and expected to provide appropriate cow care. Grains and forages are harvested and stored to maintain quality and provide maximum nutritive value.

The farm has a Michigan Department of Environmental Quality NPDES permit. The NPDES permit requires records and documentation that the farm is environmentally sound. All manure storage structures are closely monitored. Fields are soil tested and manure is applied to meet the needs of the growing crop. Neighboring cash crop farmers also use the farm's manure to reduce their commercial fertilizer needs. All this is documented in the farm's Comprehensive Nutrient Management Plan (CNMP) which is written and annually reviewed by a paid consultant.

Mares Vanderploeg provided the content contained in this text



2015 Elected Officials Tour

Host Farms

Cary's Pioneer Farms Inc.

Vanderploeg Holsteins LLC

Tour sponsors

Chaffin Farms

Kendall English

Crumbaugh Farms

De Saegher Dairy

High Lean Pork

Huron Pork

White Acres

Weburg Farms

Facilitated by

Gratiot County Farm Bureau

Gratiot County MSU Extension



Cary's Pioneer Farms was established in 1944 by Charles and Neoma Cary. There was never a doubt in Charles' mind what he was going to do to support a family. There is no way to explain to those who don't know farming as to why we love it. "It just gets in our blood" Farming is an independence that is like the free birds in the air.

Current farm operation:

Scott: joined farm in 1967

Matt: joined farm in 1992

Jake: joined farm in 1995

4 full & 3 part time employees

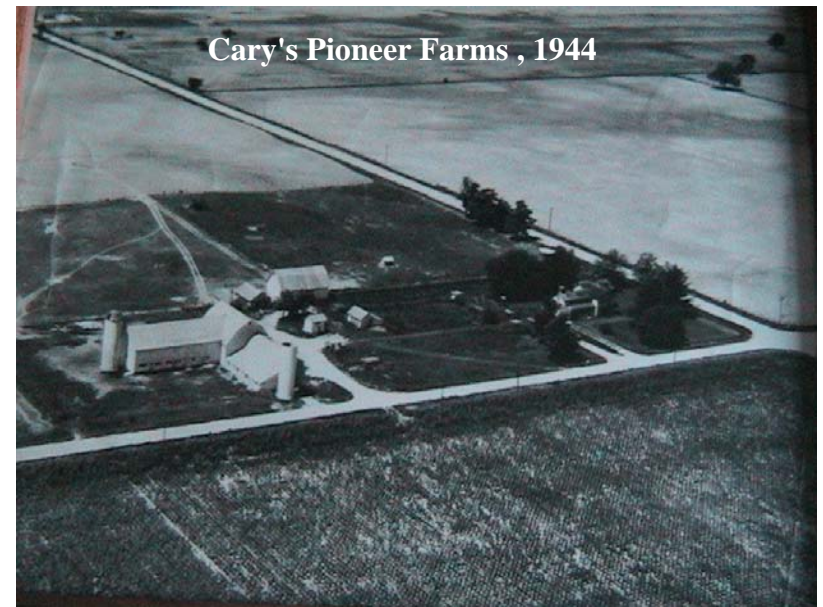
Seasonal help as needed

2,300 cattle and 4,100 of acres



Left to right: Matt, Charles, Scott and Jake Cary

Children, grandchildren and great grandchildren sitting on the fence



The farm has grown from just a couple hundred acres in 1944 to 4,100 acres of cash crops and 2,300 head of cattle today. Many of the challenges of farming are the same as they were 20 years ago. We still till, plant, care for animals and worry about the weather. But now technology plays a much bigger role and environmental compliance takes much more of our time. We strongly support the Michigan Agriculture Environmental Assurance Program (MAEAP) and are also permitted thru M-DEQ. MAEAP is a huge pride for the farmers that choose to do this voluntary program. Environmentally we do it for our kids, our community and because it is the right thing to do. With that we get to say we are stewards of the land and feeding the WORLD!!

Text provided by Matt Cary

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Michigan Agriculture
Protecting the Environment



www.maeap.org

Michigan Agriculture Environmental Assurance Program



Why MAEAP?

Michigan Agriculture Environmental Assurance Program (MAEAP) verified farmers are actively protecting the natural resources that surround us – the water we drink, the air we breathe, the lakes and streams we fish and swim in – while producing top-quality Michigan-grown agricultural products. They represent the highest standards of environmental stewardship and responsible agriculture.

MAEAP farmers are required to complete environmental education and identify and prevent environmental risks on their farms, complying with state and federal environmental regulations and maintain a reverification every three years. The Michigan Department of Agriculture & Rural Development is responsible for verifying farms. Once a farm is considered verified, the farm can display a MAEAP sign.



The Michigan Agriculture Environmental Assurance Program (MAEAP) is an initiative of the Michigan Department of Agriculture & Rural Development and over 50 industry, agency, university, conservation and environmental partners. MAEAP is administered locally through conservation districts statewide.

For more information:
MAEAP Office (517) 373-9797
www.maeap.org



Michigan Agriculture Environmental Assurance Program

Mission

To develop and implement a proactive environmental assurance program that targets all size Michigan farms and all commodities, ensuring that farmers are engaging in cost effective pollution prevention practices and working to comply with state and federal environmental regulations.

Program Establishment

MAEAP was first developed in 1997 by a coalition of farmers, commodity groups, state and federal agencies, and conservation and environmental groups to provide a venue for farmers to become better educated about management options in order to help protect and enhance the quality of natural resources. Partners from these groups are still involved in MAEAP's work, serving on committees and spreading the word to farmers. On March 8, 2011, Governor Rick Snyder signed the first legislation of his new administration, establishing MAEAP in law.

With confidentiality guaranteed by law, MAEAP provides a structure under which Michigan farmers can be assured they are effectively following approved MAEAP standards. These standards include inspected practices that are consistent with the identified Right to Farm Generally Accepted Agricultural and Management Practices (GAAMPs). Through MAEAP, farmers show that they are working to comply with state and federal environmental laws specific to each system of the program.

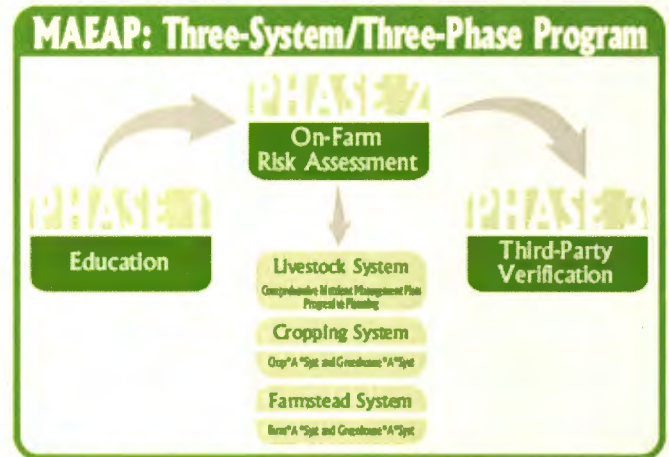
Program Basics

This comprehensive, voluntary, proactive program is designed to reduce farmers' legal and environmental risks through a three-phase process: 1) education; 2) farm-specific risk assessment and practice implementation; and 3) on-farm verification that ensure the farmer has implemented environmentally sound practices. The program's four systems — Farmstead, Cropping, Livestock and the newly developed Forest, Wetlands and Habitats System — each examine different aspects of the farm. After becoming MAEAP verified, a farm can display a MAEAP sign signifying that MAEAP partners recognize the farm is environmentally assured.

2714 Total MAEAP Verifications in the State

Why farmers participate

- Access to cost share & incentive payments
- Learn & improve
- Marketing opportunity
- GAP audit assistance (Good Agricultural Practices)
- Ahead of the curve
- Peace of mind/right thing to do
- Conformance with RTF GAAMPs
(Right to Farm, Generally Accepted Agriculture Practices)
- RUP Credits (Restricted Use Pesticide)
- Improved management
- Follow State & Federal Laws
- Legislative incentives
- Liabilities/Ins \$ reduction
- Help protect the Great Lakes
- Use proven scientific standards to protect our air, water, and soil
- Maximize natural nutrients & reduce the use of fertilizers made from fossil fuels
- Make good neighbors
- Ensure safe storage of fuel, fertilizer, and chemicals
- Balance efficient production and sound environmental practices
- Have emergency plans ready to deal with the unexpected
- Protect natural resources by using environmentally sound practices
- Take care of land while making a living for our families



2014 Statewide Environmental Gains

- 357,000 tons of sediment delivery reduced
- 7,000 acres of verified nutrient management plans
- 572,000 lbs of phosphorous delivery to surface water reduced = enough to grow 143,000 tons of algae
- 1,171 lbs of nitrogen delivery to ground water reduced = enough to grow 41,000 tons of algae

Gratiot County Statistics

- 37 MAEAP Verifications
- 21 individual farms are Verified
- 30 Additional producers working toward the final Verification status
- All 16 townships have land that is a part of the program

**Phosphorus & Nitrogen reduced on MAEAP farms could have grown enough algae to cover over 3/4 of Houghton Lake at approx. 1/4 " in depth.
(Houghton Lake is Michigan's largest inland lake)**

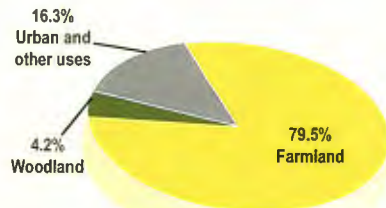
Livestock & the Gratiot County Environment

Ag is King

Gratiot County is home to 878 farms, and has the highest percentage of farmed land of any county in Michigan.

Agriculture is a growing industry in Gratiot County, and commands a lion's share of the county's total economic activity. In 2012, the combined market value of livestock, animal products and grain produced on Gratiot County farms totaled more than \$345 million—more than an 80 percent increase in the just the previous five years. Of that \$345 million, more than 40 percent (\$146 million) is from livestock and their products, including milk.

Gratiot County 2012 Land Use

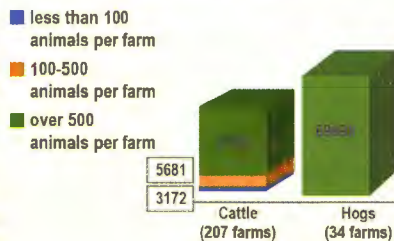


Gratiot County is home to Michigan's sixth most valuable farm sector overall, and is in the top five in the production of cattle, hogs, turkeys, poultry and eggs, and grains and dry beans.

Twenty Gratiot County livestock farms are CAFOs, or Concentrated Animal Feeding Operations, that must be permitted by the State of Michigan. State and federal regulatory agencies define CAFOs based on the number of animals on site and their housing style. CAFOs have 1,000 or more animal units (1,000 beef cattle, 700 dairy cattle, 2,500 hogs over 55 pounds, or 10,000 hogs under 55 pounds).

All Michigan CAFOs are permitted through the state's Department of Environmental Quality, which monitors each farm's manure utilization program, including storage, land application and crop utilization.

Gratiot County 2012 Livestock Inventory



Environmental Stewardship

Farmers live where they farm, and many go above and beyond to protect the environment, including participating in the Michigan Agriculture Environmental Assurance Program (MAEAP). MAEAP is a voluntary, proactive way to maximize environmental stewardship. MAEAP-verified farms are subject to third-party verification that they meet all federal and state guidelines for environmental protection.

- Gratiot County's 41 MAEAP verifications include 10 CAFOs.
- Beyond MAEAP, more than 11,000 acres of Gratiot County farmland is set aside for conservation, wetland protection, and wildlife habitat.



Regulation

Antibiotics

In 2013, FDA asked antimicrobial manufacturers to remove the growth promotion label from livestock feed and sought veterinary guidance in feeding medically important antibiotics to livestock. Evidence demonstrating that livestock antibiotics lead to antibiotic resistance in humans is sparse, but agriculture took this step anyway to safeguard human health.



Manure as Fertilizer

Manure is a valuable nutrient for crops. Many Gratiot County farms raise livestock just to have manure for crops, and many crop farmers purchase manure from livestock farms. Organic farmers depend on manure to fertilize their crops. All farmers are encouraged to follow the state's Generally Accepted Agriculture and Management Practices (GAAMPS), including:

- Nutrient testing of both soil and manure to ensure manure is only applied at the rate crops can use it.
- Runoff prevention techniques, including incorporation within 48 hours of spreading, and not applying within 100 feet of waterways.
- Application on frozen or snow-covered ground is discouraged but allowed on a field-by-field basis.

THE FARMER'S VOICE

By Matt Cary, Gratiot County cattle farmer

I'm the third generation of my family to operate Cary's Pioneer Farms in Sumner Township. My grandfather started the farm in 1944. In 1966 my father Scott partnered with him, then in 1998 my brother and I took over. Today we raise 2,000 head of cattle and 4,000 acres of corn, soybeans, wheat and hay. We continue to grow our operation so there will be enough for my children and my nieces and nephews if they choose to be the farm's fourth generation.

That many cattle makes our family farm a 'concentrated animal feeding operation,' or CAFO. That means our business is intensely scrutinized and highly regulated, by the USDA and Environmental Protection Agency at the federal level, and by the state's departments of agriculture and environmental quality.



There's a small mountain of annual paperwork and permitting required. Legally operating our business requires a Comprehensive Nutrient Management Plan other permits that take hundreds of hours and thousands of dollars to complete. Together they form an individualized rulebook for just our farm, defining what we can and can't do in applying manure to crop land. We take these rules seriously. Disregarding them is a good way to get fined, sued and eventually shut down.

Agriculture—both crops and livestock—is one of the biggest economic drivers in Gratiot County. We're successful and we're proud of that. But farmers can't farm without taking care of the natural resources all farms rely on: clean air, clean water, and clean soil. Damaging those resources with bad management practices will only put a farmer out of business.

More Information

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

- CAFO information: http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3713-96774--,00.html
- Program/Permit questions: Mike Bitondo, 517-517-284-5594, bitondom@michigan.gov
- District Office for Gratiot County, farms/permit questions, Megan McMahon, 517-284-6651, mcmahonm1@michigan.gov
- Emergency or after-hours number to report spills/accidents: 1-800-292-4706

MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

- MAEAP: www.maeap.org, 517-284-5609; Gratiot County MAEAP technician: Lindsey Martin, 989-224-3720, lindsey.martin@macd.org
- Right to Farm program and Generally Accepted Agriculture and Management Practices: http://www.michigan.gov/mda/rd/0,4610,7-125-1599_1605--,00.html
- Nuisance/odor questions: 517-284-5619 or 877-632-1783
- Animal health and care: <http://www.michigan.gov/mdard/0,4610,7-125-48096--,00.html>
- Veterinary questions/animal antibiotic use: Dr. James Averill, State Veterinarian, 517-284-5769

MICHIGAN STATE UNIVERSITY EXTENSION

- Gratiot County Office for educational resources: <http://msue.anr.msu.edu/county/info/gratiot>, 989-875-5233
- Questions on livestock farm practices: Gerald May, Senior Extension Educator and specialist in livestock, mayg@msu.edu 989-875-5233

FEDERAL

- FDA Feed Directive for use of antibiotics on livestock: <http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/ucm071807.htm>, 1-888-463-6332
- Environmental Protection Agency Permitting Information: <http://water.epa.gov/polwaste/npdes/>

Gratiot County Farm Bureau
225 E. Center Street, Ithaca, MI 48847-1437
989-875-4626
<http://www2.michfb.com/counties/news/28>



Livestock & the Gratiot County Environment



Gratiot County ag production — then and now

Product	1997 County Production ¹	
Milk	138 M lbs. ²	7,220 cows
Soybeans	3.0 M bu.	79,400 acres
Corn	9.6 M bu.	77,900 acres
Cattle	10,600 hd. marketed ³	
Hogs	49,300 hd. marketed ⁴	
Dry beans	350,700 cwt.	21,000 acres
Sugarbeets	300,000 T	16,200 acres
Corn silage	102,200 T	5,900 acres
Wheat	0.8 M bu.	12,100 acres
Hay & haylage	13,300 acres ⁵	

Product	2012 County Production ¹	
Milk	547 M lbs. ²	22,700 cows
Soybeans	4.1 M bu.	80,543 acres
Corn	14.8 M bu.	91,299 acres
Cattle	10,600 hd. marketed ³	
Hogs	140,000 hd. marketed ⁴	
Dry beans	84,095 cwt.	6,050 acres
Sugarbeets	267,000 T	10,700 acres
Corn silage	268,000 T	12,600 acres
Wheat	1.7 M bu.	20,800 acres
Hay & haylage	17,400 acres	

¹1997 and 2012 USDA Ag Census unless otherwise noted

²Calculated using reported milk production per cow

³Unchanged due to lack of USDA data

⁴Calculated using standard industry production parameters and phase of production

⁵2002 USDA Ag Census