Madison Manager

Cornell Soil Testing Transferred To Agro-One

Cornell University has decided to transfer the job of processing commercial and homeowner soil tests from the Cornell Nutrient Analysis Lab to "Agro-One", a division of Dairy One created expressly to process soil tests and generate fertilizer recommendations following the Cornell system. Agro-One will use the same or similar procedures as are used by the Cornell lab and generate the same recommendations you would receive on a Cornell soil test report.

The "official" transition date was August 17, but as with all transitions, there have been a few speed bumps and delays in working out the new procedures. The Cornell Nutrient Analysis Lab is working closely with Agro-One to help them set up their computer systems to generate Cornell recommendations and to ensure that laboratory practices meet Cornell standards.

Pre-paid Cornell Soil test kits will be honored by Agro-One. New sampling kits can be ordered from Agro-One by calling 1-800-344-2697 or kits can be picked up at the Cornell Cooperative Extension of Madison County Office. There is no charge for the kits at pick-up, but payment must be sent with the soil sample to Agro-One directly. While there may be changes it looks like the basic charge will be $10 per sample.

If you have questions you can call the CCE Of Madison County office in Morrisville at 684-3001 ext 106.

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Issue

Cornell Cooperative Extension of Madison County would like to wish everyone a very Happy Holiday Season and a Joyous New Year!

Protecting Agricultural Land in Madison County

By: Karen Baase, Ag Issue Leader, CCE Madison County

It appears that time may be on the side of potential applicants to New York State's Farmland Protection Implementation Program. That was the message from speakers at the training which occurred on December 3rd in Wampsville and Morrisville.

One aspect of NYS's program that protects prime agricultural farmland involves a process that "extinguishes" the development rights of the property yet has in the past compensated awardees 75¢ on the dollar. A local municipality is the applicant – not the farmer – and it involves extensive, long term collaboration with a land trust and the local municipality.

Speakers included Judy Wright, consultant with American Farmland Trust, Judy Gianforte, Cazenovia, who monitors land holdings on behalf of the Cazenovia Preservation Foundation (CPF). Sue Reed, New Woodstock and Matt Critz, Cazenovia also spoke about developing their applications, which involved working in concert with the Town of Cazenovia and CPF.

Also Madison County Farmland Protection Board released its DRAFT Pre-Application which will be used to evaluate future applications that protection viable agricultural land in Madison County. For further information, contact Steve Durfee, Chair of Madison County Farmland Protection Board at 687-6468.

Animal Welfare... Not Dirty Words

Whether we like it or not, farming is in the spotlight (think Utube). Management practices that may seem harmless to someone familiar with day to day dairy and livestock care can and has been filmed and manipulated by activists who wish to destroy animal agriculture into something far more disturbing when viewed by someone who has never been out of the suburbs.

In general, the majority of our population is at least three generations away from the farm. The consuming public is vulnerable to the propaganda that activist groups circulate. They want to feel good about the food they eat. Their vision of dairy or livestock farming is probably formed more by Disney than reality. It is up to dairy and livestock producers to be proactive not reactive when considering the feeding and care of their animals and how these actions are seen by the public. No one should be doing anything that causes needless discomfort to animals or that one would be uncomfortable if seen by a visitor to the farm.

We must actively tell our story and back that story up with plans that ensure the welfare of our stock. Many farms large and small have plans that outline the standards that must be met for their operation. Whether you call them protocols or standards, we all need to have something that can be used to back up any questions. In addition it is just the right thing to do. Cornell Cooperative Extension of Madison County through a grant from NY Farm Viability Institute will work with dairy farmers to establish general guidelines and standards of animal care that can be adapted by our farmers. We will also be working to encourage enrollment in the cattle welfare certification module of the New York State Cattle Health Assurance Program (NYSCHAP).

Look for more information in the coming months as the program is rolled out for Madison County Producers. If you have any questions call the office at 684-3001 and ask for Karen or Kathe.

NY FarmNet was established in 1986 to provide farm families with a network of information, contacts and services that are uniquely suited to the financial and personal challenges of agricultural business management. This network covers every aspect of high-pressure decision making from partnerships and transfers to stress management, family communication, domestic concerns, and disaster response. FarmNet is a working resource to help build positive solutions for future success. Key program support is provided by the New York State Department of Agriculture and Markets and NY Farm Viability Institute.

Contact Us: For urgent inquiries, please call: 1-800-547-FARM (3276)
Regular Business Hours: 9:00 AM - 4:00 PM EST Monday - Thursday and 9:00 AM - 3:00 PM on Friday

Managing Calf Health Through Nutrition

Jud Heinrichs, Professor of Dairy and Animal Science, Department of Dairy and Animal Science Penn State

Nutrition has many effects on the health of the calf and improvements must be considered to reduce the high incidence of morbidity and mortality as found on dairy farms around the world.

Calf health as reflected in morbidity and mortality is a consistent and major issue facing the dairy farmer. Data from Europe and the US clearly show that dairy calf mortality remains above 5-8%, representing a significant economic impact on the dairy farm economy. In addition, morbidity remains high which adds to the economic burden through added labor and health supply costs; and over 50% of this morbidity is related to neonatal scours. When calf health is discussed, we must begin with the nutrition of the dam and the related influence on the body tissues of the calf at birth and the nutrient value of colostrum. Research has shown that various aspects related to dry cow nutrition can affect the calf at birth. Most notably minerals fed to dry cows such as Se, Cu, and Zn can greatly influence the calf at birth as well as the colostrum. Health issues related to anemia and white muscle disease that were once common problems in newborn calves are rarely a problem now in well managed farms due to dietary supplementation of the dry cow.

An important calf health issue that also must be considered is colostrum management. There are many research publications clearly showing the significant effects of timing, quality, and quantity of colostrum fed and its impacts on morbidity, mortality, growth, age at calving, and culling of dairy heifers. Failure of passive transfer (FPT) of colostrum maternal immunoglobulins occurs in a high percentage of calves in the US and other countries, due to the way colostrum feeding is managed on dairy farms. The correlation with mortality is very strong and this along

with morbidity represents a serious economic loss to dairy farmers. Nutrition has many effects on the health of the calf. Improvements must be considered to reduce the high incidence of morbidity and mortality as found on dairy farms around the world. Recent studies show that colostrum as fed on dairy farms often is not adequate in immunoglobulin and nutrient levels; and is often high in bacteria, all of which need to be improved with management on the farm. Methods to increase immunoglobulin levels in colostrum are limited due to the genetics of the cow (dam) and physiological conditions of the cow at calving time. Recent work at Penn State and the University of Minnesota has been conducted to improve immunoglobulin absorption by the small intestine of the newborn calf. Heat treating colostrum (60oC for 30 to 60 minutes) is one of the methods recently demonstrated that significantly improves immunoglobulin absorption without increasing the viscosity of the colostrum or impacting the nutritional or immunological value.

Calf nutrition related to basic feeding also can be addressed in relation to health. Levels of nutrients and types of feeding systems impact health. Both low and high levels of milk/milk replacer feeding have been shown to impact calf health and growth. Feeding less than 10% of body weight (BW) per day of liquid feed will result in low rates of BW gain and in situations with added stress, may predispose calves to increased morbidity. Altering diet nutrient levels have not been shown to affect immunity unless the nutrient levels are extremely low or high. We now often recommend feeding 12% of birth body weight in milk or milk replacer per day for adequate growth. Dietary supplements have been shown to impact calf health. In a non-antibiotic situation, many supplements have been tried with minimal success.

Oligosaccharides are one class of compounds have been shown by researchers at Penn State as well as others, to positively affect calf health by reducing the incidence and severity of diarrhea in calves. More recently, nucleotides have been used in neonate milk replacers for many species with great success. In a study done at Penn State, it has been shown that added nucleotides increase small intestinal DNA content, significantly increase abundance of nucleoside transporter mRNA, improve small intestine villi size, and improve microbial populations in the gut. Probiotics have also been studied by many researchers and it has been shown that these can alter intestinal microbial populations to a more positive group of bacteria and can also enhance the immunity of the calf.

Nutrition has many effects on the health of the calf and improvements must be considered to reduce the high incidence of morbidity and mortality as found on dairy farms around the world.

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Jud Heinrichs, Professor of Dairy and Animal Science, Department of Dairy and Animal Science Penn State

SOPs Are Needed for Any Size of Dairy Farm

By: Neil Broadwater, Extension Educator – Dairy, University of Minnesota

The hired man always mixes the dairy ration but is off for the weekend. The son, who is a partner in the dairy operation, always does the vaccinations but he is on vacation right when it needs to be done. Mom always feeds the calves but one evening has to take one of the kids to a school activity so someone else needs to feed them. The family needs to attend a wedding in another state so a neighbor is going to fill in and do the chores and milking. Dad always does the morning milking and a hired student does the evening milking. These are just a few of the situations that may come up on the dairy farm throughout the year. So the question is, are the chores and milking procedures carried out exactly the same no matter who is doing them? How does the dairy producer know that whoever performs a particular task on a particular day will get it done correctly?

The answer may be in using Standard Operating Procedures (SOPs) on the farm. This is nothing new for some dairy producers and many have heard about SOPs over the years at meetings or read about them in newspaper and magazine articles. However, more farms need to adopt the practice of using SOPs. There is not a more important time to have SOPs than now, given the economic stress on dairy farms. No matter the size of the dairy operation, adopting and following SOPs for the farm are critical to its success and profitability.

What are SOPs? They are simply establishing criteria to perform functions in a particular way. No matter who does the task, they get done exactly the same way every time. SOPs do not have to be lengthy, complicated and fill a big manual. They should be kept simple (see graph for example). They should be written and have the ability to be posted at the site of where the task is performed.

Graph: Example of standard operating procedure format for feeding lactating cows.

1. Sweep feed refusals to end of feed bunk. 2. Scoop feed refusals into TMR mixer. 3. Record weight of feed refusals in feeder notebook. 4. Distribute feed refusals in bunk at steer pen.	1. Mix feed for exactly five minutes. 2. Do not move tractor while mixer is running. 3. Record total amount of feed in mixer in feeder notebook	1. Distribute feed evenly along entire length of feedbunk. 2. Record time in feeder notebook. 3. Return tractor and mixer to equipment shed.

(Graph from Standard Operating Procedures: A Writing Guide, Penn St -- http://pubs.cas.psu.edu/freepubs/pdfs/ud011.pdf)

Dairy producers may install the best milking equipment, have the best feeding system money can buy, put up the best calf barn possible, harvest and store the best quality forages, and calculate the best rations. But if all of these are not managed properly, the investments or management practices may not give the dairy family as valuable a return as possible.

On your farm, is there a standard procedure on how the TMR is mixed, how the cows are fed, how cows are prepped for milking, how calves are fed? More than likely, if two or more people end up doing a particular task on the dairy farm, the task will be performed differently by each person. This can have a potential negative impact. It can cause variation in feed mixing, milking routines, administering shots or vaccinations, recording heats, caring for a newborn calf. Consistency in how things are done on a day-to-day basis is the key. How is consistency accomplished? The answer is for the farm to adopt SOPs so that no matter who does the work, it is consistent from one day to the next, then week after week and month after month.

To develop SOPs, dairy family members should have a meeting involving those who work on the farm. Determine what the goal is for each chore or job that needs to be done. Then write down every task on how to reach that goal. What should be done every time a calf is born? What should be done in the milking parlor? What should be done when mixing feed? How should calves be vaccinated? Develop a draft of each SOP. Talk about it with everyone involved before finalizing it. Then the next step is to actually train all workers by going through and demonstrating the procedures. Share why these procedures need to be followed exactly. This helps develop the worker's job knowledge and demonstrates a caring attitude of wanting the worker to succeed.

SOPs provide direction and improve communication. They provide a common standard for performance and can be used to monitor how the work is getting done. They are a good starting point for trouble-shooting a problem.

No doubt, SOPs can be very beneficial to a dairy farm operation. However, to fully benefit from them, the dairy manager must commit to leading a team effort and following through by monitoring results. SOPs can be a powerful tool for managing people and resources on today's dairy farm where there is little margin for error, no matter the size of herd.

Be Thankful For Your Manure

Eric Young, Agronomist, WH Miner Institute, young@whminer.com

Have you ever estimated the fertilizer value of a load of liquid dairy manure? In these tough economic times it's a good exercise. It might surprise you that a load (4,500 gallons) of liquid dairy manure is worth about 2 cents per gallon if you consider the N-P-K value alone. That may not sound like much, but at $90 (4,500 gal x $.02/ gal) a load, it's not exactly peanuts. How do you figure? All you need is a manure analysis and some recent fertilizer price quotes.

Below is a recent manure analysis from the Institute's lagoon and the amount of N-P-K per 1,000 gallons. One important assumption is the price per pound of NP-K. Based on some recent local quotes, $0.60/ lb N, $1.00/ lb P_2O_5, and $0.80/lb K_2O were used. Using 4,500 gallons as a load, the math is easy from here, but there are a few more assumptions built in.

For N, it was assumed that 50% of the ammonia-N will be available and 35% of the organic-N would be mineralized. Incorporating manure within a day will get most of the ammonia-N, but wait a week or more, and most of it will be gone. The 35% N mineralization value for manure is a 'book' value that's based on the average over the growing season and varies in reality. As with fertilizer N, there is obvious uncertainty in trying to estimate manure N contribution. Considering that N use efficiency values (amount of N applied that actually ends up in the harvested crop) for fertilizer N are typically low (~50%) to begin with, there is a lot of room for improvement when it comes to accurately predicting N availability in general.

So what about P and K assumptions? In this example it was assumed that all of the P in the manure would be available to the crop, which is a stretch. Some of the inorganic and organic P in the manure will be rapidly fixed by the soil and unavailable to the crop. The same is true for fertilizer P. In fact, organic compounds in manure can actually help P availability by binding metals like iron and aluminum that fix P. Inorganic and organic P in manure both contribute to greater plant available P over the cropping season and also build soil test P. The K in manure is equivalent to fertilizer K availability. This is because K doesn't hang out in organic forms like N and P, so manure K essentially substitutes for fertilizer K on a one-to-one basis.

We also get more than just N-P-K from manure. Other important nutrients such as sulfur, manganese, iron, copper, chloride, molybdenum, zinc, and boron are typically in dairy manure. The bottom line is that we should view manure as the true nutrient source that it is and putting numbers on it helps. Don't forget about all of the organic carbon in manure, which helps build soil organic matter and soil health. With all of these extras, we may be closer to a 'Ben Franklin' per load. Our pit had ~5 million gallons in it this fall— that's $100,000 of N-P-K, bring it on.

Ordering Alfalfa Seed

Ev Thomas Oakpoint Agronomy, WH Miner Institute retired

It looks like there will be good seed supplies of most of the top alfalfa varieties for 2010. Long-time readers of this newsletter are aware of my positive opinion on alfalfa variety traits, specifically potato leafhopper-resistant (LHR) varieties. In checking the current list of available alfalfa varieties, there are a baker's dozen (13) of LHR varieties on the market that are suited for northern climates (fall dormancy 2,3, and 4), including at least one – WL353LH – that's a seventh generation resistant variety. Ohio State University research showed that at least for the first few generations, with each new generation there was an increase in performance. This is probably true with the newer generations although there's no guarantee that a sixth or seventh generation variety is better than a fifth generation one.

Plant breeders evaluate alfalfa varieties for many characteristics and traits, but among the more important for farmers in the Northeast are fall dormancy, winter hardiness and leafhopper resistance. What about disease resistance? Don't be overly concerned about disease resistance traits, simply because it's just about impossible to find a modern alfalfa variety that's not resistant to all five of the alfalfa diseases for which ratings are usually reported.

Do the newest LHR varieties have similar yield as the top non-LHR ones? We don't know, simply because it takes a few years for a new alfalfa variety to go through the university trials. You certainly don't want to base purchase decisions on first-year results – especially for LHR varieties, since it takes part of the seeding year for the resistance mechanism to become fully effective.

We're also limited because many university trials tend to compare LHR varieties, with limited comparisons between LHR and the top non-LHR varieties. But even if there still is a bit of "yield drag" – and if there is, it's pretty darned small – I still prefer LHR varieties. That's all we planted at the Institute during my last five years or so there. You can control potato leafhoppers with insecticides, but that requires regular scouting and your being both willing and able to drop everything and apply an insecticide when needed. Finding leafhoppers at threshold levels on Monday and spraying on Friday won't cut it.... Finally, beneficial parasites, including both native and introduced species, are doing a dandy job of controlling both alfalfa weevils and alfalfa blotch leafminers. What will insecticides do to these populations?

You don't want to find out.

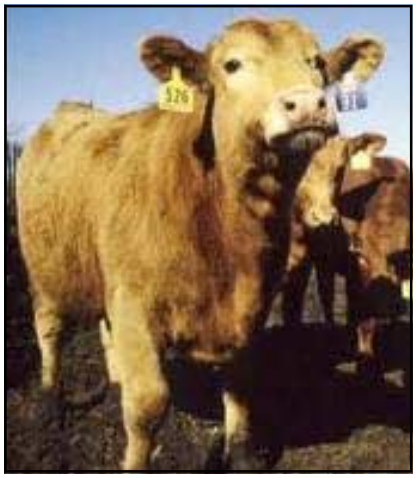
Beef Cattle Comments

By: Mike Baker, Cornell University

Cutting Winter Feed Costs.

We've all seen this list of cost cutting measures, but it bears repeating. The following suggestions on cutting winter feed costs were provided by Heather Thomas:

- Change to a more efficient and economical haying system, hire someone else to do the haying, purchase hay.
- Sell high value hay and replace it with lower cost feed.
- Use cool season plants such as wheat pasture, brome or fescue.
- Feed nutrients as needed. Test nutrient analysis of hay.
- Use the resources you have at hand. If the equipment and labor are available and hay is nearby at a reasonable price, it may be the cheapest alternative.
- But when hay has to be hauled a long ways, increasing its cost, another type of supplement may be cheaper.
- Energy is probably the most expensive and most important part of diet. Protein, minerals and vitamins are all wasted unless the cow's energy requirements are met first.
- To get the most from your pastures, rotate the grazing, divide the herd into groups according to their needs, saving the best pastures for those that need it most -- yearlings or first calvers.



- You must consider the needs of cows. Energy & protein requirements vary greatly, depending on stage of pregnancy and lactation. A cow in late gestation needs about 1.5 lbs. of crude protein, whereas a lactating cow needs at least 2.25 lbs.
- The two most critical periods in the cow's year are the 30-50 days just before she calves and the 80-100 days after calving (until she is rebred). The best time to cut feed costs is after weaning, when she has lowest requirements and can utilize poorer quality roughages, crop residues and by-products; you can find numerous ways to reduce her feed bill.
- Cows should not be left on marginal fall or early winter pastures while still nursing calves, or they lose too much body condition. One extension research project showed that cows on unsupplemented pasture that continued nursing calves until December lost about 150 lbs. and 1.5 points in body condition score by the next calving.
- Wean calves early. Keeping calves on cows until late may look advantageous for weaning weights, but when cows are pulled down to calve at a body condition score of 4 or less, next year's calf crop percentage is lowered (more weak or sick calves, greater chance for loss) and replacement costs increase since more cows come up open the next year.
- Reduce waste. Feeding smaller amounts more often not only wastes less hay, but also enables younger cattle or slower eaters to get more chance at their share.
- Hay can be fed on well-sodded pasture without much waste, but if the ground is muddy, you may want to use feeders -- especially when feeding alfalfa -- where the cattle can clean up all the hay instead of tromping it into the ground.
- Match your calving season to your resources.
- Use genetic selection to create the type of cow that can perform well in your

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To Do January/February

1. Cows should be in body condition score of 5.0-6.0 for March calving (Smooth appearance, last 3-4 ribs are just visible, and there is some brisket fat).
2. Heifers should be in body condition score 5.5-6.5 (slightly fatter than cows, can begin to see pockets of fat on either side of tail head).
3. If forage quality is low, send sample in for nutrient analysis.
4. If hay for the cow herd is in short supply, replacing up to three pounds of hay with two pounds of whole shelled corn will stretch hay supplies. Include corn at no higher than 50% of the ration. Small grains like barley, wheat and rye can also be used, but unlike corn, must be processed.
5. If corn or corn silage is a significant portion of the diet, calcium could be in short supply. Contact feed dealer or Cooperative Extension agent for assistance in balancing minerals in the ration.
6. A good windbreak, e.g., woodlot, building, hillside- can reduce energy requirements 10% in cowherd.
7. Watch of outbreaks of lice. Treat whole herd, not just affected individuals.
8. If calf scours has been a problem, consider vaccinating cowherd. Scours vaccination must be given 6 weeks prior to calving. Consult your veterinarian for assistance.

Upcoming Events

January 1 - CCE Offices are closed in observance of the New Year.

January 6 – Bramble Production Topics, Berry Webinar Series. All webinars scheduled for 1:00pm. The Cornell University Berry Program continues to host a series of Webinars for Berry farmers. The webinars feature experts from eastern North America Speaking on production and pest management topics and their current related research. Participation is easy; all you need is a high-speed internet connection and a web browser. Connections for each webcast are limited, so register now by contacting Laura McDermott, lgm4@cornell.edu or calling 518-746-2562. For additional program details and other information: http://www.fruit.cornell.edu/Berries/webcastindex.htm.

January 7 - 175th NYS Agricultural Society Annual Meeting and Forum, Holiday Inn, Electronics Parkway, Syracuse NY

January 8 - Online Courses for New Farmers Begin. Are you a new or aspiring farmer who would like some guidance in the development of a farm enterprise, but has been unable to locate or attend any training near you? Are you comfortable enough with a computer to consider learning online? CCE and the NY Beginning Farmer Project have created two basic online courses to help you think through the major factors related to farm start-up. Join experienced CCE educators and 29 of you new farmer peers in a dynamic learning experience that incorporates both self-paced readings and real-time virtual meetings with discussion forums, homework activities, guest presenters, and developing a customized plan for your next steps in farming. The online course duration in 6 weeks. Instructors: Steve Hadcock, CCE-Columbia County and Dan Welch, CCE-Cayuga County. Cost is $100 per course. To register visit: http://www.nybeginningfarmers.org/courses/

January 22 – 24 - NOFA-NY's 28th Annual Organic Farming and Gardening Conference. Saratoga Springs, NY. To learn more, visit: http://www.events.org/nofany-conference/cpage.aspx?e=21411

January 27 - Tri - State (New York, Ohio, Pennsylvania): No-Till Conference, West Middlesex, PA

January 29th and 30th - Second Annual Winter Green-up Grass-fed Conference - Century House, Latham, NY (Albany Co.) - This year's conference will be expanded to include, Friday and Saturday, January 29th and 30th, 2010 - in response to last year's attendee feedback, and there will be more time to interact with the speakers, the vendors, and each other. All the food served will be locally grown and raised this year. Speakers will include Dr. Allen Williams, Terry Gompert, Troy Bishopp, Mark DeBoo, and Ken Jaffe. Sponsored by Cornell Cooperative Extension of Albany County. For more information, visit www.diamonddangus.com.

January and June 2010. Meat Processing and Food Safety Certificate Program. SUNY Cobleskill will be offering this program in January and June. This intensive hand on training program is designed to provide the knowledge and skills students require entering employment in the meat processing industry. Students will be skilled in sanitation, food safety, slaughter, meat cutting and processing. As part of the students' preparation for the industry, the program consists of specialized training in the accuracy of cutting, knife handling, portion control, merchandizing and the utilization of all products. The program outline includes: Unit One: Safety and Sanitation, Unit Two: Species Harvesting/Slaughtering, Unit Three: Primal Fabrication, Retail Cutting and Wrapping and Unit Four: Customer Relations. The cost for this program is $2,995 which includes textbook, hard hat, frock, 5 inch boning knife, 12 inch butcher knife and safety cutting glove. For more information about this program contact SUNY Cobleskill at 518-255-5528, or Training@cobleskill.edu.

March 6 & 7 - The shearing school will be held at the Cornell Teaching & Research Center Sheep Farm near Harford, NY south of Dryden, NY off of Route 38 on Slaterville Road. Instruction will include the shearing pattern, blade sharpening techniques, physical fitness, handpiece maintenance and more. The instructor is Doug Rathke from Minnesota. Rathke is one of the top shearers in the United States and has had extensive training from the New Zealand Wools. Rathke is skilled at both machine and blade shearing. Class size is limited to 20 students. The registration cost is $150 per person. Deadline for registration is February 12, 2010. If you are unable to attend the shearing school, but are still interested in learning more about sheep shearing an instructional video tape or DVD is available. This 90-minute "how-to" video is filled with useful tips and information on shearing. The cost of the video or DVD is $44.95 and may be obtained at the address below. To register for either shearing school or to purchase the video or DVD send your name, mailing address, phone number and a check or money order in US funds made payable to Doug Rathke and mail to Doug Rathke, 61231 MN Hwy 7, Hutchinson, MN 55350. Call 320-587-6094 if you have any questions.

Ongoing. Farm Welding Training Classes are available on an ongoing basis from Patriot Resources at locations across NYS. For more info, contact Tom Bryant at gawelds.edu54@yahoo.com or 315-863-5143

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environment, utilizing least-cost feed sources, shaping your beef herd to fit your feed. This may mean changing the genetics to breed a type of cattle that can best utilize what your place grows, rather than changing your feeding program to match the cattle.

- In other words, you should grow cattle that do well on your particular crop (native grasses, desert rangeland, irrigated pasture, crop residues, grain, alfalfa-whatever your place grows best) rather than having to buy feeds you don't grow in order to enable your cattle to perform.

Contact Us at…

Cornell University
Cooperative Extension
of Madison County

Agricultural Program
100 Eaton Street
Morrisville, New York
315-684-3001
Fax: 315-684-9290
www.madisoncountycce.org

Cornell University
Cooperative Extension
of Madison County

Agricultural Department
P.O. Box 1209, 100 Eaton St.
Morrisville, NY 13408

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Building Strong and Vibrant New York Communities

Madison Manager

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The *Madison Manager* is edited by Kathe Evans and produced by Darlene Curtis. For more information contact Cornell Cooperative Extension of Madison County P.O. Box 1209, 100 Eaton St., Morrisville, NY 13408. phone: 315-684-3001 or fax: 315-684-9290, www.cce.cornell.edu/madison.

Ag Program Committee: Andy Shephard - Cazenovia, Doug Ford - Bouckville, Ginger Scoville - Morrisville, Nathan Durfee - Chittenango, Denise Goedel, Earlville, Roy Meeker, Munnsville, Doug Trew, Munnsville.

Staff:

Karen Baase-Extension Issue Leader	Extension # 105	kab21@cornell.edu
Kathe Evans, Extension Community Educator	Extension # 106	kbe4@cornell.edu
Becca B.R. Jablonski AED Specialist	Extension # 118	rb223@cornell.edu
Darlene Curtis, Administrative Assistant	Extension # 100	dme6@cornell.edu
April Winslow, Ag in the Classroom Coordinator	Extension # 111	amh36@cornell.edu
Steve Miller, Farmers Market Nutrition Program Coordinator	Extension # 106	sgm6@cornell.edu