Cornell Cooperative Extension of Oneida County's

Farm Flash

We had a few late season snow storms that reminded us that the first week of spring- like weather doesn't always come on the first day of spring in central New York. Hopefully that is all behind us now and we can focus on one of the first activities of spring: fixing fence. I pray we have a spring that allows for early planting and a warm summer with periodic rains to produce bumper crops.

April 2013

Cornell University
Cooperative Extension
Oneida County

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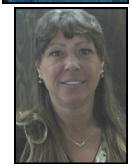

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CCE of Oneida County Farm Flash
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Upcoming Events

Agriculture Advocacy Workshop

Are you an advocate for Agriculture or do you want to know what it means? Join Us at the Oneida County CCE Office on
April 6th from 10 a.m. – 2 p.m.
register online at https://reg.cce.cornell.edu/AgAdvocacy_230 or call Kristi Cranwell at 736-3394, Ext. 122

Tractor & Machinery Certification

April 9, 10, 11 from 8:30 a.m. – 3:30 p.m.
Clinton Tractor, Meadow St. Clinton, NY
register online at https://reg.cce.cornell.edu/Tractorsafety_221
or call Kristi 736-3394 ext 122

All American Selections, Vegetable Varieties

April 10th 6:30 to 7:30 pm Class Fee: $5
Hear a brief history of the All-America Association
Learn why growing AAS Vegetables in your garden is a smart idea
Find out tips on growing from seed and where to purchase seeds.
Register for this event at http://goo.gl/QrD9e or call
736-3394 for info

SAVE THE DATES

Oneida County Indoor Market last winter date—April 13th
The Oneida County Market will open for the season on May 18th
Berries in the Home Garden, May 22nd
FarmFest 2013 Friday June 7th
Herb & Flower Festival Saturday June 22
Look for more information in future issues or FarmFlash or visit our website www.cceoneida.com

2013 Dairy Princess Pageant:
Friday May 3rd, 7:00pm @ Harts Hill Inn

The banquet will start with cow tails at 7:00pm followed by dinner at 7:30pm. For tickets or information on advertising in the souvenir program booklet, please contact Mary Burkert 841-8979, or Joan Smith 737-8907. Reservations are greatly appreciated. The Oneida County Dairy Promotion Committee takes an active role in promoting your local dairy products. Please plan on attending and offering your support to this industry supporting group!

Upcoming Wool Pools: The Finger Lakes Wool Pool will be held **May 8th, 10th and 11th**, again at the Empire Farm Days site, Rt. 414 one mile south of Seneca Falls, N.Y. Please note that this year we will NOT be receiving wool on Thursday, May 9th as some of our members will wish to honor the Ascension Day holiday.
The Southern Adirondack Fiber Producers Cooperative wool pool will be **June 13-15** at the Washington County Fair Grounds.
2532 State Rte 40 Greenwich, NY 12834
518 692 2700 , 802 236 0881 www.battenkillfibers.com

Youth Pork Quality Assurance Workshop,
April 20 – 9 a.m. – noon,
CCE Office, register online at https://reg.cce.cornell.edu/YouthPQAPlus_230 or call Kristi

Children's Creative Arts & Education Fair
April 20, 2013 from 10 am to 2 pm at
MVCC Field House, Utica Campus
Hands on activities geared for children 2 to 12
FREE Admission

Improving Cow Comfort in Tie Stall Barns Online Resource:
Are you wondering what you can do to improve the comfort of your cows in your stanchion or tie stall system? A great video resource from Cornell Cooperative Extension in Chenango County was developed and features suggestions and methods to improving cow comfort. To access this YouTube video you can navigate to the YouTube page and type in "**Cow Comfort Tie Stall Barns".** The video features Chenango county dairy producers who made the effort to improve cow comfort on their farms by raising the neck rail, making improvements to watering systems in the barn and improving the surface of the feeding manger.

Contact Information for Local Agency's that support Agriculture
NYS Dept. of Environmental Conservation (DEC) 793-2554
Oneida County Soil & Water Conservation District 736-3334
Natural Resource Conservation Service 736-3316

Understanding the Provisions of the Affordable Care Act:
A Seminar for Farm Employers

Registration 9:15
Italian Buffet Lunch
Adjourn at 3:00

The Maplewood Inn & Suites
400 7th North Street
(Exit 25, Route 81)
Liverpool, NY

April 18, 2013

Program Registration is $55 per person.

***Please Register by April 10, 2013**

FIRST AND LAST NAME OF PARTICIPANTS (1 per line)

_____

_____

_____

FARM ORGANIZATION/JOB TITLES

_____

_____

Mailing Address:_____ _____

_____

Phone:_____FAX:_____

Email:_____

Total Amount Due: $_____

This event is co-sponsored by:

Cornell Cooperative Extension

New York State Horticultural Society

Agricultural Affiliates

Dairylea Milk Cooperative

Farm Credit East

Northeast Dairy Producers Association

Two Ways to Register:

Mail:

Mail this form and your payment to:

NYSHS
Hedrick Hall
360 W. North St.
Geneva, NY 14456

Make Check Payable to:
NYSHS

Online:

Register online now through **PayPal** at
www.NYSHS.org

Questions:

Contact: Karen Wilson,
New York State
Horticultural Society
(NYSHS)
(315) 521-0852 or
wilsonk36@hotmail.com

OR

Contact: Tom Maloney
Applied Economics and
Management
Cornell University
607-255-1628
Email:trm5@cornell.edu

Cost of Production

By B. Collins

Most producers agree that knowing their cost of production is a sound business practice. However, many producers do not know their total cost of production. Part of the reason for this is that producers have many separate enterprises that require allocating certain costs between the many enterprises. Knowing what costs should be allocated, how to figure depreciation expense and what should be charged for the producers labor are many of the other elements that makes the calculation for cost of production cumbersome.

Dale Lattz, farm business management specialist from the University of Illinois Extension, acknowledges the two standard methods of calculating the cost of production is the financial method and the economic method, but has introduced the concept of a cash flow method as a third alternative.

The financial method is useful in determining the viability of the enterprise in the short term; it does not take into account opportunity cost, the cost for unpaid labor, the depreciation cost is used based on the tax law and not on the true life of the asset.

The economic method, is useful in determining the long term viability of the enterprise, and includes the cost of unpaid labor, depreciation cost is based on the life of the asset and an interest is charged on the capital invested. As these additional costs are included it usually reflects a higher cost of production than the financial method.

The cash flow method is useful in determining the short term liquidity and not the profitability of the enterprise as it looks as the sources of cash generated or used. It includes term debt principal payments, family living expenses along with income and social security taxes, but does not take into consideration depreciation, as it is not a cash outlay.

As all three methods will predict different results it is important for the producer to understand the difference between the methods and use the one for the specific reason the enterprise is being analyzed.

The major categories of costs for any of the methods will include in some combinations of fixed, variable, cash and noncash items, and marginal cost.

Fixed costs are incurred even if no out put is produced. These would include depreciation, interest, rent, repairs, taxes and insurance.

Variable costs are those costs that vary directly with the amount of production. As the quantity of production increases variable costs rise, until a point is reached where the economics of scale brought on by mass production and the variance costs do not increase proportionately with the production. The variable cost can include, feed, fertilizer, hired labor and interest on working capital.

Cash and noncash cost are both important to farm financial decisions. Cash costs require current cash outlays while noncash cost can be deferred to a later period for payment must not be overlooked in the decision-making process. For example, if a piece of machinery is repaired, that requires an outlay of cash, however, if the producer repairs the equipment himself, that is a noncash cost.

Marginal cost is the addition to total cost associated with production of one more unit of output. The purpose of analyzing the marginal cost is to determine at what point an enterprise can achieve economies of scale. The marginal cost is calculated by dividing the change in cost by the change in output.

U.S., monthly dairy costs of production per cwt of milk sold, 2013

	Jan	Feb
Operating costs:	$/cwt	
Feed--		
Purchased feed	8.30	
Homegrown harvested feed	6.64	
Grazed feed	0.17	
Total, feed costs	15.10	
Veterinary and medicine	0.78	
Bedding and litter	0.24	
Marketing	0.23	
Custom services	0.56	
Fuel, lube, and electricity	0.77	
Repairs	0.56	
Other operating costs	0.00	
Interest on operating capital	0.01	
Total operating costs	18.25	
Allocated overhead:		
Hired labor	1.53	
Opportunity cost of unpaid labor	2.29	
Capital recovery of machinery and equipment	3.59	
Opportunity cost of land (rental rate)	0.02	
Taxes and insurance	0.20	
General farm overhead	0.71	
Total, allocated overhead	8.34	
Total costs listed	26.59	

Source: Based on USDA's 2010 Agricultural Resource Management Survey of milk producers and updated using current USDA milk production per cow and production input indexes. Ref: Dale Lattz, My Ag Info Book, USDA

1. Opportunity cost is the cost of any activity measured in terms of the value of the next best alternative forgone. It is the sacrifice related to the second best choice available which is picked among several mutually exclusive choices.

2. This is the increase in efficiency of production as the number of units being produced increases. Typically when this is reached it lowers the average cost per unit through increased production since fixed costs are shared over an increased number of units.

Lighting and Ventilation, Squeeze more Savings into the Bottom Line

By Mary Wrege

Using energy on the farm costs big money, but using energy efficiently can save money. Making informed electrical energy decisions and implementing cost-effective energy efficiency strategies could help reduce a farm's energy consumption and costs by 15, 20, 30, even 35% or more.

A typical dairy farm's high-energy use equipment includes the milking parlor operation, refrigeration, ventilation and lighting. According to the New York State Energy Research and Development Authority (NYSERDA) published 2003 Dairy Farm Energy Audit Summary, the following categories were identified for NY dairies in energy consumption:

Vacuum Pumps	17%
Milk Cooling	25%
Lighting	24%
Ventilation	22%
Manure Handling	4%
Electric Water Heating	4%
Feeding Equipment	3%
Misc.	1%

Lighting

Lighting is a substantial energy input and represents 24% of the total electric usage on NY dairies. Farmers often don't realize just how much energy they are using across all their lighting systems. The most effective energy conservation measure for dairy lighting systems is to replace inefficient luminaries with higher efficiency types.

Lighting Suggestions:

Lighting Type:	Energy Conservation Measure:	% Energy Savings:
Incandescent	Convert to halogen lamps	20-38%
Incandescent	Convert to compact fluorescent, if appropriate	75%
Incandescent	Convert to fluorescent tube luminaries	80-85%
Fluorescent T-12 magnetic ballasts	Convert to fluorescent T-8 with energy efficient ballasts	25%
Mercury Vapor	Convert to Metal Halide, if appropriate	43-54%
Mercury Vapor	Convert to High Pressure Sodium, if appropriate	44-59%

Remember to think about the lighting usage not only in the milking parlor, but also in the parlor stalls and holding area, calf housing, equipment washing areas, as well as the outdoor grounds.

VENTILATION

Air circulation and ventilation systems on dairy farms provide fresh air to dairy cows and diminish heat stress. The value and importance of providing a comfortable environment for the high-producing dairy cow is demonstrated by the expanding use of air circulation and other cooling methods. The effects of heat stress on dairy cows have been well documented and include:

- Reduction in feed intake
- Drop in milk production by 20-30%
- Increased susceptibility to mastitis and other diseases
- Reduced conception rates and other reproductive problems.

To reduce the effects of heat stress on dairy cows, a variety of measures have been developed that include:

- Natural ventilation
- Shading
- Circulation fans – basket, box, cyclone, high-volume slow speed fans
- Circulation fans with evaporative cooling – low pressure sprinkler and high pressure mister applications.

Consider getting a base-line energy evaluation done, both analyzing the short and long-term strategies to energy conservation and efficiency, along with the expected return on investment. Using pre-qualified consultants, NYSERDA offers these evaluations to farm operations for free or at low cost. (Most farm audits end up being **free** to the farmer.) The final cost depends on the size of the operation. The NYSERDA Agriculture Energy Efficiency Program (AEEP) offers assistance in identifying and implementing electric and natural gas energy efficiency measures to eligible farms and on-farm producers, including but not limited to: orchards, dairies, greenhouses, vegetables, vineyards, grain dryers, and poultry/egg.

For more information log onto NYSERDA's website at: http://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities/PON-2644-Agriculture-Energy-Efficiency-Program.aspx
Or contact: Mary Wrege at CCE Oneida Co. e-mail: mpw57@cornell.edu or call 315-736-3394 ext. 131.

Submitting Forage Analysis: Don't Overlook Digestibility

By M. Collins

While my calendar notes that it is the first day of spring, the weather conditions outside suggest otherwise. I am beginning to question the credentials of the groundhog and his predictions for an early spring. Pushing my pessimistic tendencies aside, before you know it the rush of spring work will return.

As we approach the next harvest window for hay crop silages or even the winter cover crops destined to bolster forage inventories, it's worth putting a plug in for the importance of submitting forage samples for analysis. High producing dairy cows require high forage diets that provide adequate energy and nutrients in a reasonably consistent time frame. The forage that is included in dairy rations serves two purposes: fuels the rumen bugs for fiber digestion and satisfies the need for rumen fill. The fiber components of the forages used in rations can significantly impact the digestibility and consequently the dry matter intake of the diet. If the cow is unable to digest the plant material then the cow can't reap the benefits of the plant material. The value in submitting routine forages samples is that we can learn the actual nutrient values or chemical composition of the crops being harvested.

For this particular article let's briefly review how the fiber components are measured and listed on a forage analysis report. Typically on a NIR requested report the fiber content of a submitted sample is measured as the **Neutral Detergent Fiber (NDF) and the Acid Detergent Fiber (ADF):**

- NDF: Cell wall material or plant structure of forage. Contains hemicellulose, cellulose and lignin. Hemicellulose and cellulose are only partially available to the cow, whereas lignin is not available at all due to its indigestibility. The NDF value represents the percentage of cell wall material or plant structure in a feed. The lower the NDF percentage, the more an animal will eat.

- ADF: Contains cellulose and lignin. Acid detergent fiber is the percentage of highly indigestible plant material in a feed or forage. The lower the ADF percentage, the more feed a cow can digest. Therefore, a low ADF percentage is desirable on a feed analysis report.

Keep in mind that as a plant matures the amount of fiber (cell wall materials) increases. Additionally, these fiber components contain structural carbohydrates that are not as digestible by the rumen bacteria as the nonstructural carbohydrates (sugars and starch). Lignin stands alone as a unique material in that it is not considered a carbohydrate and is essentially an entirely indigestible material. Lignin content of forage will negatively impact the digestibility of the hemicellulose and cellulose fractions of forage. Here is how I like to keep it straight:

Plants grow, advance towards maturity, fiber levels increase with maturity, digestibility decreases with maturity, available energy stores decline with maturity.

As a result of the relationship between forage digestibility and energy availability, testing the fiber components for digestibility or NDFd is now another useful evaluation applied to forage samples. While sugars, starches, and proteins are considered highly digestible in most plants, it is the range in fiber digestibility that sets forages apart. NDFd is a measure used to improve the predicted energy value of forages. These measurements can be obtained in the forage lab using test tube methods (*in vitro),* or by actually placing samples of forage into the rumen of a fistulated cow (*in sit).* Commercial labs typically use incubation times of 24, 30, or 48 hours. Using the amount of NDF present at the beginning of the incubation and the remaining amount of NDF at the end, the NDF digestibility is calculated.

So, why should you submit forage samples for NDFd analysis? In choosing this test you'll have a better indication of the predicted energy values. Energy intake is a limiting factor for lactating cows, particularly during the transition phase of lactation. Prioritizing feeds to particular lactation groups or between heifer groups, especially when/if inventories are sketchy; becomes easier when you know all of the information on a particular forage. Fiber NDF is slowly digested by the rumen bacteria which leads to the rumen fiber fill affect. Fiber fill is important for creating the rumen mat that aids in the digestibility of finer particles, but ultimately the fiber does need to be digested. Remember that as digestibility improves, energy becomes available to the cow. As the fibrous material breaks down, the cow is left feeling empty once again, and feed intake resumes.

A study reported in the Journal of Dairy Science looked at the significance of NDFd. The study found that a one-unit increase in NDFd was associated with a 0.37 pound increase in dry matter intake and a 0.55 pound increase in 4% fat corrected milk.

Helpful Tip: Dairy One Forage Lab now offers 2 forage analysis packages. The **Forage NIR Prime** package is the one to select if you are interested in NDF digestibility analysis. As with many other businesses or services, Dairy One Forage Lab prices have increased slightly. They also reserve the right to charge customers a disposal fee for larger than necessary samples amounts. For a complete listing of services and prices visit their website at http://www.dairyone.com/Forage/Newsletters/201301.pdf.

Crop Shorts

By Jeff Miller

New herbicide gets label for use in NY

Acetochlor is not a new active ingredient, it has been used in the US for quite some time but not in NY. It is a member of the chloroacetanilide herbicide group including metolachlor (Dual) and alachlor (lasso). Like these products it controls a number of common annual grasses: (barnyardgrass, crabgrass, foxtails, panicum and witchgrass) but does not have the same effectiveness on yellow nutsedge. Acetochlor controls more annual broad leaf weeds then either Dual or Lasso (carpetweed, galinsoga, **henbit**, lambsquarter, nightshades, pigweed, **purslane** and **smartweed**).

Acetochlor has more water solubility when compared with Dual and lasso so will require less rainfall for incorporation and activation: only about ½". Like dual and lasso, acetochlor does get tied up by negatively charged clay and organic matter so you have to adjust rates based on texture and OM %. This is important because we have soil textures that range from loams near the Rome sand plains, and the northeast and north west portions of our county to our silty-clay-loams in the lake laid plain around Oneida lake not to mention the pockets of soil textures that dot our landscape. Crop farmers may have OM at 2.5% while dairy farmers can have fields that are 6.0% OM. Adjusting the rate of application to the correct texture and OM can make the difference between success and failure of weed control.

Degree, Harness, Surepass and Warrant only contain acetochlor, Degree is encapsulated, Harness and Warrant are emulsifiable concentrates. The premixes of acetochlor with atrazine are Degree xtra, Harness Xtra and Keystone. Acetochlor is also combined with clopyralid (active ingredient in stinger) and flumetsulam (the active ingredient in python) both predominantly broadleaf weed killers, in the premixes Surestart and Tripleflex.

All of these products have PPE requirements that include, chemical resistant gloves, footwear, a chemical resistant apron, goggles and headgear if mixing and filling above your head. You should have all of these PPE on your farm plus an appropriate respirator and a tyvek suit. These are for your own protection, not to mention that you may be asked about PPE by NYSDEC during an inspection.

Read the label carefully especially, rotation crop restrictions. You can plant wheat 4 months after application of acetochlor and many other broadleaf crops like alfalfa, soybeans , beans , potatoes and small grains like oats, millet, and rye 9 months after application. There is an 18 month restriction on grazing or feeding grass "cover crops" planted after acetochlor application.

This active ingredient will be packaged and sold in NY under the following product labels:

- Degree Xtra Herbicide (EPA Reg. No. 524-511) – containing the active ingredients acetochlor and atrazine
- Harness Herbicide (EPA Reg. No. 524-473) – containing the active ingredient acetochlor
- Harness Xtra Herbicide (EPA Reg. No. 524-480) – containing the active ingredients acetochlor and atrazine.
- Harness Xtra 5.6L Herbicide (EPA Reg. No. 524-485) – containing the active ingredients acetochlor and atrazine.
- Warrant Herbicide (EPA Reg. No. 524-591) – containing the active ingredient acetochlor.
- Keystone (EPA Reg. No. 62719-368) – containing the active ingredients acetochlor and atrazine.
- Surepass EC (EPA Reg. No. 62719-367) – containing the active ingredient acetochlor.
- SureStart (EPA Reg. No. 62719-570) – containing the active ingredients acetochlor, flumetsulam, and clopyralid.
- TripleFlex Herbicide (EPA Reg. No. 62719-570-524) – containing the active ingredients acetochlor, flumetsulam, and clopyralid.

Smartphones and tablets use on farms Greg Roth, Penn State

Do you use a smartphone or tablet on your farm?

The incredible power and storage on today's smartphones and tablets are making them an essential part of many farmer's toolbox. In many cases they are replacing many items in the toolbox. Multiple reference materials can be loaded on a tablet and replace many of the hard copies of materials many carried in notebooks or boxes in their trucks. Tablets and smartphones have great cameras that can take and transmit problem images and videos and post or send them to others, dispensing the need to carry a camera in many cases. And now, numerous apps are being developed that can provide support in the field to help develop solutions on the go.

Here's a list of a few apps that are available to farmers and agribusinessmen: All of these can be found with the app search engines on your phone or tablet:

- Soil Web: This app uses GPS to determine the soil series at your location and provides characteristics from an NRCS database.
- Growing Degree Days: This app allows you to determine the number of growing degree days accumulated at a particular location and compares that to a previous year.
- Weed ID Guide: This app from the University of Missouri helps to ID many weeds and provides pictures and Latin names- good for non-weed scientists.
- Farmer Apps Online: A group of apps that help with common calculations such as trucking costs, amount of grain in a bin, and silage moisture determinations.

- Pioneer Mobile: A fairly compressive app with product info, calculators and research information on crop production.
- Tee Jet Spray Select: An app from Tee Jet that provides sprayer tip recommendations based volume, speed, density of material and nozzle spacing.
- Farm Pad: A farm record keeping app that facilitates scouting and data collection from a number of farms and fields.
- Connected Farm: An app from Trimble that uses your phones GPS for mapping and scouting fields.

Calibrate My Sprayer: This app from Clemson helps make sprayer calibration easy by doing the calculations for you.

These are just a sampling of what's out there in this rapidly developing area. Take time now do some searching and to outfit yourself with the apps you'll need for next season.

CCE of Oneida county has been sending timely information out to local growers by email for several years. Farmers can really benefit from this timely information. An example: we sent out an alert that armyworms were being found in western NY to a list of 90 local farmers and agribusinesses early last summer. Early the next morning I received a photo of an armyworm from a local grower with a text: Do I have a problem? I went to the farm to help him scout for the pest in a number of his fields finding significant armyworm feeding in some fields and no sign of armyworm in other fields. He treated the infested fields avoiding significant damage. Several farmers made that same call and got the same response. We provided a similar alert to local growers when we found potato leaf hopper (PLH) over threshold in a few area fields and followed up on many local farms helping local farmers avoid crop losses.

If you are a local berry grower neither of these issues would have been very important to you. That is why CCE maintains lists of email addresses that are categorized for a variety of local producers interests. If you would like to receive informative emails from CCE you can call Linda at 736-3394 ext 124 and give her your email address and areas of interest.

Below are a list of interest areas to choose from:

___Dairy	**___Beef**	**___Forage Crops**	**__Grain Crops**
___Sheep	**___Swine**	**___Poultry**	**__Tree Fruit**
___Vegetables	**___Berries**	**___organic**	**__energy production**
___energy conservation	**___Marketing**	**___farm business mgmt**	

Get the most protein from your nitrogen.
We add nitrogen to our fields to increase both yield and protein of the forage we grow. Sulfur plays a role in protein formation in our forages. In the past we used to receive sizeable deposits of sulfur to our fields from rainfall. This was a product of high sulfur coal burning to our west. Many improvements were made to significantly reduce air pollution which reduced the amount of sulfur deposition by rainfall. We are starting to see sulfur deficiency in crops that use larger amounts of sulfur especially fields that are established in sandy soils.

To promote optimal protein production it is suggested to apply 1 lb. of sulfur for every 10 lbs. of nitrogen. Eighty lbs of Urea mixed with 20 lbs of ammonium sulfate will produce a 40-0-0-4S mix. This mix can be applied at a rate of 250lbs /ac at green up to productive grass fields and winter grain fields intended for forage harvest to maximize yield and protein.

Tom Kilcer, Advanced Ag Systems did some side by side comparisons at the Cornell Valatie Research farm in winter triticale where he added 115 lbs. of N/acre as urea, he got 14% crude protein. Right next to it where he added only 100 lbs. of N as ammonium sulfate; the winter forage produced 17 – 18% crude protein.

For additional information: http://nmsp.cals.cornell.edu/publications/factsheets/factsheet34.pdf

How is glyphosate-resistant Palmer amaranth getting into Michigan? Bill Curran PSU
Since Palmer amaranth is not native to Michigan we have speculated that the glyphosate-resistant Palmer amaranth populations found in Michigan have been established by seed brought in from an outside source. What is this source? While we may never know the direct source, when examining the field histories of the first reports of Palmer amaranth in some of these areas, one thing that stands out is that in many cases manure had been applied to these fields within a year or two of the growers noticing the plants. *This along with some other observations, have led me to speculate that the Palmer amaranth seed may have been brought in with cotton seed that is often fed to dairy cattle.* This may not be a surprise when you consider the millions of acres that are infested with glyphosate-resistant Palmer amaranth in the southern United States, where a majority of the cotton is produced. While this may help establish the origins of some of these initial reports in new areas of the state, once Palmer amaranth establishes itself it is extremely difficult to control and seed can be moved from field to field with equipment and by other means.

Palmer amaranth's "Superweed" characteristics
There are several characteristics that have helped Palmer amaranth earn the title of "Superweed" in many popular press forums. An extended emergence pattern, rapid growth rate, and resistance to several herbicide families make this weed extremely difficult to manage.

In Michigan we have tracked Palmer amaranth seedling emergence from mid-May through mid-August, with even a few seedlings emerging in early September. Since Palmer amaranth can emerge later in the growing season, herbicides that are applied at or prior to planting often do not have enough residual activity to control this weed. Additionally, postemergence herbicides, many of which have little or no residual activity, can also miss these late emerging plants. Palmer amaranth's rapid growth rate also makes timing postemergence herbicide applications extremely difficult. This season in our research plots Palmer amaranth grew from 3- to 7-inches in less than five days. Palmer amaranth is extremely difficult to control with herbicides once it is greater than 3-inches tall. Herbicide resistance is the number one reason why Palmer amaranth has become such a challenge to control. Many of the Palmer amaranth populations that we have tested in Michigan have multiple resistances to both glyphosate and the ALS-inhibiting herbicides. While we haven't been able to test all the populations found in Michigan, we are assuming most of these populations are both glyphosate and ALS -resistant. This leaves a very few herbicide options available for control, especially in soybean.

Scouting for Palmer amaranth in 2013:

It is essential for all growers to scout for changes in weed populations in their fields. In areas where Palmer amaranth has not been confirmed, scouting efforts should be targeted in Roundup Ready fields that have been spread with manure in the past couple of years. If initial glyphosate applications are not controlling pigweed, it may be Palmer amaranth. It is important to get confirmation of this early to allow for potential management with herbicides or hand-weeding prior to seed production. *Remember* one female Palmer amaranth plant can produce an average of 400,000 seeds. In many cases if Palmer amaranth is identified early in its first year of establishment there may only be a few plants scattered throughout the field. Early identification and removal of this weed before it produces seed and spreads throughout the field is extremely important.

To help with the identification of glyphosate-resistant Palmer amaranth, we have developed a fact sheet *"Palmer amaranth in Michigan: Keys to Identification"*. This fact sheet can be found on our website .

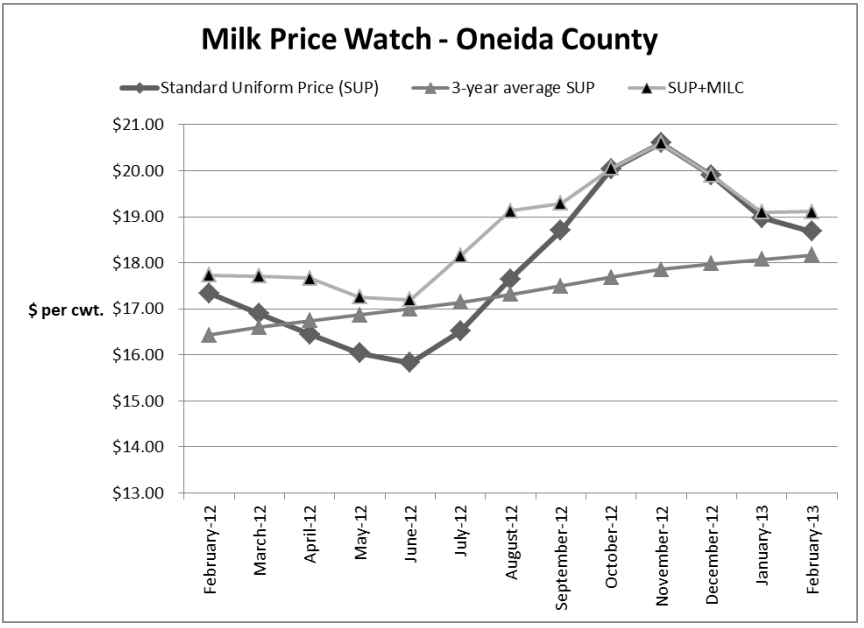
Harvesting Rye grain as silage

Growers that have grown rye for forage harvest warn that it matures very quickly and must be scouted regularly as it gets to maturity to time harvest to obtain optimal quality and yield. You can feel the swelling in the stem indicating where the head is placed . Cornell suggests harvest at boot stage.

Tom Kilcer, Advanced Ag Systems, did many years of plot studies with triticale and highly recommends wide swathing small grains intended for forage harvest. Wide swathing speeds up drying, shortening dry down time, minimizing sugar loss. The sugars that are conserved are used in improving fermentation. Paul Craig, an educator from Penn State suggests that the chopper should be set to 1/2" TLC to optimize packing and that chopping should begin when rye is around 68% moisture. He also suggests using an inoculant to help speed fermentation. Growers who have put rye silage in bunks have described it as spongy and remind other growers to use the rule of thumb: 800lbs of packing weight for every ton/hr of feed delivery. Paul Craig reiterated the importance of quick covering with a quality plastic and tire to tire covering to eliminate air infiltration.

Milk Price Watch for Oneida County - Thirteen months through FEBRUARY 2013

These prices are adjusted from Federal Milk Order No. 1 for the Syracuse location, which determines Oneida County prices. Remember that these prices do not reflect marketing and hauling charges, and they are based on a standardized component mix (3.5% butterfat; 2.99% protein; and 5.69% other solids). Your actual check will depend on these factors.



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