

# Madison Manager



## **Reminder** *Upcoming Programs in Madison County*

**Sprayer Calibration Clinic And Some Thoughts on Weed Control**  
March 27, 2007

Empire Tractor, Cazenovia, NY at 10:30-2:30.  
DEC certification credits applied for  
- at least 2 credits anticipated.

**Principles of IPM and Weed Control Options**  
March 28

at 10:00am-12:15pm.  
Cornell Cooperative Extension of Madison County's  
Ag Center, 100 Eaton Street, Morrisville NY.  
DEC certification credits applied for - 2 credits are  
anticipated.

Please contact Cornell Cooperative Extension of  
Madison County at 315-684-3001 to register for  
either one of these programs.

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***Celebrate Madison County Agriculture***  
***Thursday, March 21, 2007***



## Meet Your Ag Program Committee

By Kathryn Evans, Community Educator Cornell Cooperative Extension of Madison County

Cooperative Extension has always been an organization that responds to needs and problems on a local level. Program development is carried out by Extension staff with input from members of program committees. The program committees are made up of local residents with an interest in the specific program area. Ag. Program committee members commit time to consult with and advise staff on the direction and types of programming that will benefit county residents. Programs are then developed and tailored to meet the needs of the agricultural community.

Program committee members serve a three year term and may serve two consecutive terms. Committee members include Rich Carrier, Canastota; Doug Ford, Bouckville; Nate Durfee, Chittenango; Ginger Scoville, Morrisville; Andy Shepard, Cazenovia; Jim Burback, Canastota and Suzanne Sloman, Madison.

Periodically, we will introduce the members of the Madison County Agricultural program committee through the Madison Manager. This month we will feature our chair person, Ginger Scoville of Morrisville. Ginger and her husband, Mike have operated G&M Farms for 3 years. They grow and market vegetables through the Hamilton Farmers Market in addition to making four kinds of salsa and hot sauce. The salsa and hot sauce are processed with home grown vegetables and even out the marketing for year round sales. Nelson Farms is the major outlet for the sauces during the off season.

According to Ginger, the salsa processing segment of their business is a "hobby gone wild". Originally it was a method of using excess peppers and made terrific

Christmas gifts. Gradually the Scoville's realized that they could market their products and after a visit to Nelson Farms in

Cazenovia began pursuing a marketing plan in earnest. The couple intends to keep their operation small enough not to require hired labor but big enough to generate a modest profit.

Ginger has been a member of the Agriculture committee for since 2006 and offers the

added insight of the smaller producer, a segment of the agricultural community in Madison County that is growing larger each year.

Members of the Ag Program committee are the local connection to county Extension Programming. They make the program more responsive to local needs and are willing to listen to ideas from producers in their area to make the program delivery more useful to county residents.



## Is Your Planter Ready?

Sjoerd Duiker, Soil Management, Crop and Soil Sciences Penn State

The quality of your corn stand will largely depend on planter performance. An irregular stand can easily cost you 10% of your yield. Planter performance is especially critical in no-till because of high penetration

resistance, crop residue at the soil surface, and a rough soil surface. Inadequate planting will result in uneven seed depth and plant spacing. Hairpinning is common if coulters and row cleaners don't work properly. Now is the time to get your planter maintenance done. Here are some tips to prepare your planter for the new season.

1. **Level planter.** By placing a level on the toolbar you can easily check if it is horizontally aligned. If you notice that the unit is either hanging back- or forwards, you need to lift or lower the hook-up to the tractor. This is essential to get

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# Upcoming Events

**March 27 - Sprayer Calibration Clinic And Some Thoughts on Weed Control** Empire Tractor, Cazenovia, NY at 10:30-2:30. DEC certification credits applied for - at least 2 credits anticipated.

**March 28 - Principles of IPM and Weed Control Options,** at 10:00am-12:15pm. Cornell Cooperative Extension of Madison County's Ag Center, 100 Eaton Street, Morrisville NY. DEC certification credits applied for — 2 credits are anticipated.

**March 29 - Latest News in Calf & Heifer Mgt. Workshop,** 10-12:00pm. Featuring Jenny Mills from Elanco. At CCE Madison County, Ag Center, Morrisville. \$10 per farm.

**March 31 - "GRAZE-A-PALOOZA"** The Madison County Soil and Water Conservation District, the Graze-NY Program and regional partners announce a spring grazing conference set for 2007 at the White Eagle Conference Center in Hamilton, New York. For more info: Troy Bishopp at 315 824-9849 Admission is \$ 30.00, which includes lunch, trade show and materials. Pre-registration is required Call Kim Totten at (607) 334-3231 Ext. 4 or register online @ [www.cnyrcd.org](http://www.cnyrcd.org)

**March 31 - Cornell Sheep Farm Field Days,** The Cornell Sheep Program hosts informal, quarterly field days in conjunction with each of the five lambing seasons a year associated with the STAR©

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- accurate seed depth placement.
2. **Planter unit alignment.** Look across your planter units from the side. Are they all at the same height? If one unit is either up or down compared to the others, it needs some work. A common problem is that some bolts are loose. You should not be able to easily lift up your unit.
  3. **Diameter of seed opener disks.** Check operator manual to determine acceptable disk diameter. Stick two business cards between the openers and move them as close together as possible. The space between them should be 3" or more, depending on your planter type. If opener disks are worn too much you will get a "W" shaped seed slot instead of the desired "V" slot.
  4. **Diameter of coulters.** Check the diameter of the coulters, and replace them if needed. You should adjust the depth of worn coulters that are still usable.
  5. **Pressure on firming wheels.** Check the pressure on the firming wheels. The downward pressure should be adequate, but not too high (check operator manual).
  6. **Depth wheels.** Depth wheels should run tight. Change washers from in- to outside (or vice versa) of depth wheel if necessary.
  7. **Depth of seed placement.** Place the planter on a concrete floor to measure the difference between the bottom of the depth wheels and slot opener, and adjust to the desired depth. The front coulter should be set at the appropriate depth (no deeper than the seed slot openers).
  8. **Alignment of individual components.** Take a rope and pull it straight from the front coulter to the back press wheels. The firming wheels, slot openers, and coulters should all be in line.
  9. **Wear on chains and sprockets.** Check the chains that drive meters and their sprockets. If they are worn too much they need to be replaced. Excessive wearing of these parts will cause skips and doubles.
  10. **Clean metering units.** Take metering units apart. Remove dirt and clean the hood with soapy water (no kerosene, diesel or oil should ever be used in metering units!). Check for broken fingers in a finger-pickup meter, check the brush that wipes of excess seeds, and see if a groove has formed in the chromium house of the metering unit. If the groove becomes large, and if brushes wear, you have a greater likelihood of doubles. Brushes need to be replaced at least every other year.
  11. **Elevator belt in metering unit.** The belt (in finger pick-up meters) should be flexible, not have cracks in it, and should be clean. Clean with soapy water and let it dry before putting it back in. Put the metering unit back together. The rubber belt should be placed back in the right direction, or your meter will malfunction. You can lubricate with graphite (NO OIL or WD-40).
  12. **Calibrate meter.** It is highly recommended to take your finger pick-up metering unit to the dealer to have it calibrated. Take a bag of your own seed with you, and give him the correct speed at which you'll be driving.
  13. **Vacuum/air units.** If you have a vacuum or air meter, check for leaks and appropriate vacuum or air pressure.
  14. **Check your fertilizer unit.** Hang a bucket below the tube of the unit, and do a test run of 175 feet in the field. Weigh the fertilizer in the bucket, multiply by 100, and you have the fertilizer you'll put on in pounds per acre (at 30" row spacing). Adjust as needed.

# Upcoming Events

accelerated lambing system at the Cornell Teaching & Research Center Sheep Farm. The field days are from 9 am to 3 pm on about the second Saturday after the start of each of the five 30-day lambing seasons. The field days provide an opportunity for participants to see how a highly productive sheep system is managed and to ask questions of sheep specialists about management and marketing of sheep. Topics covered vary with the season. In general, they include lambing management, breeding, feeding, grazing management, and marketing. Registration is required by contacting the Sheep Farm Manager, Brian Magee, at [bhm5@cornell.edu](mailto:bhm5@cornell.edu) or 607-844-8367. For more information about the field days and other events and sheep farming information, visit the Cornell Sheep Program web site: <http://www.sheep.cornell.edu/>.

**April 3 - Spring Horticulture School 1: Perennials** Broome CCE. 6pm-8pm. \$10 pp. To Register call 607-772-8954x150.

**April 5 - Latest News in Calf & Heifer Mgt. Workshop, at 1:30pm.** Featuring A visit to Myron Smith's Farm, Strain Rd., Munnsville.

**April 5 - 2<sup>nd</sup> Rural Issues Community Leadership Conference, 7:30 am-3:45 pm,** Otesaga Hotel, Cooperstown, NY. Courses may qualify for approval by local governments for fulfilling requirements for Training of Municipal Planning



## Grass Bioenergy – Where is it headed?

Jerry H. Cherney, Dept. of Crop & Soil Sciences, Cornell University

Rural America has a tremendous capacity for energy production. While the ongoing energy crisis is the primary driving force for alternative energy development, environmental issues will sooner or later overshadow energy supply issues. An ideal alternative solid biomass feedstock should be nearly carbon neutral, without significant net increase in atmospheric carbon dioxide. Due to the high energy conversion ratio of grass combustion, grass provides a minimum of 8 times the greenhouse gas reduction benefit of corn ethanol. A recent article (Tilman et al., 2006, Science 314:1598-1600) claims that low-input native grasses as biofuel can actually result in a net removal of carbon from the atmosphere.

Keener et al. ([www.oardc.ohio-state.edu/ocamm/keener\\_corn\\_combustion.pdf](http://www.oardc.ohio-state.edu/ocamm/keener_corn_combustion.pdf)) state that if corn was burned, replacing liquid fossil fuels for heating, it would provide 2-4 times more useable energy for transportation, compared to turning that same corn into ethanol. Since burning grass is about twice as energy efficient as burning corn, then replacing liquid fossil fuels for heating with grass should result in 4-8 times more useable energy available for transportation then converting the same amount of corn into ethanol. So, whether you are concerned about the

transportation fuel shortage or concerned about greenhouse gases, grass biofuel for combustion should eventually surface as one of the alternative solid biomass winners. First, state and federal governments must be convinced to invest something into combustion appliance and system infrastructure development.

### Grass Selection

While there are a few exotic grasses, such as Miscanthus, that deserve some attention, the most promising grass species in the Northeast are switchgrass and reed canarygrass. Both species have similar yield potentials in the Northeast using current varieties. We are currently evaluating wild-type reed canarygrass, a similar project in Sweden increased reed canarygrass yield by 20%, just by selecting the top entry. There is potential for significant genetic improvement of grasses for biomass, using the latest genomics tools. Reed canarygrass is often criticized for its aggressive nature, such that it is one of the few native species unofficially labeled as invasive.

Recently, the Invasive Species Advisory Committee produced a white paper to clarify the definition and characteristics of invasive species (<http://www.invasivespeciesinfo.gov>)

([v/docs/council/isacdef.pdf](http://docs/council/isacdef.pdf)). In their summary they state:

*“Furthermore for policy purposes, to be considered invasive, the negative impacts caused by a non-native species will be deemed to outweigh the beneficial effects it provides.”*

“Invasive” labeling is a value judgment. Biomass production across the USA will undoubtedly expand significantly in the near future, and a high yielding, successful biomass species will possess significant societal benefit. Selection for high biomass productivity in reed canarygrass is unlikely to increase its aggressive behavior in the wild. Following biomass selection and evaluation, a comparison of beneficial societal effects vs. negative impacts can then allow an informed value judgment on the species.

### Grass Combustion Options

1. Burn undensified grass. Grass has been burned for centuries to generate heat, many settlers on the Great Plains in the late 19<sup>th</sup> century stayed alive with grass heat. Although all of those old fireplaces and stoves were relatively dangerous to operate, there are new appliances capable of handling loose chopped hay or straw.
  - a. Large boilers in parts of Europe burn straw and grass after the feedstock is first ground to a fine powder and

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## Upcoming Events

and Zoning Officials (Chapter 662, Laws of 2006). Topics: Ag District Law 305A - What It Is and How It Impacts Your Community, Maintaining Rural Emergency Services, Getting Connected: Strategies and Opportunities for Bringing High-Speed Broadband to Rural Communities, Rural Funding Update, Regional Greenhouse Gas Initiative, Economic Development: Applied Lessons from FAGE Dairy Project, Farmer-Neighbor Issues: Cases Studies for Mediation to Avoid Expensive Litigation, Renewable Energy: Frequently Asked Questions for Municipalities. More information Contact CCE of Madison County.

**April 12 - Women Igniting the Spirit of Entrepreneurship**  
OnCenter, Syracuse. Register on line at

[www.wisentpreneur.com](http://www.wisentpreneur.com). For more info contact Lindsay Wickham at 315-443-3550 or [lwickham@syr.edu](mailto:lwickham@syr.edu)

**April 14 - ALPACA SEMINAR**  
9:00 AM to 12:00 PM. Cornell Cooperative Extension of Oneida County 121 Second Street, Oriskany, NY 13424 Is being an alpaca owner, breeder, or investor in your future? Come find out by joining us at our alpaca seminar. We'll cover the history and husbandry of alpacas, the investment potential of alpacas, and the alpaca lifestyle. Registration: in advance \$10.00 per person; at door \$15.00 Info: visit: [www.myalpacagroup.com](http://www.myalpacagroup.com) or email: [info@myalpacagroup.com](mailto:info@myalpacagroup.com) or call: Gail Marsh (315) 628-

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- then injected into the boiler.
- b. Light industrial sized boilers are available that may be able to burn undensified grass. HeatWerks Inc. from Kansas has installed a boiler in northern NY that accepts loose, coarsely chopped hay and heats hot water to service multiple buildings. c. A larger scale light industrial boiler manufactured in Pennsylvania will be tested this winter in PA using chopped switchgrass as a feedstock.

**Advantages to undensified grass:** Minimum cost for biofuel preparation. Makes it possible to have a completely closed energy loop on-farm.

**Disadvantages to undensified grass:** Requires relatively large scale. Potential for a less complete burn and increased emissions, compared to pellets. More equipment needed with more maintenance.

2. Burn densified grass. Although grass could be cubed or made into large briquettes, as is sometimes done in Europe, pelleting is the primary method of densification of biomass in North America.
- a. Pellet stoves. It has been several years since we demonstrated that it was possible to burn pelleted grass in some corn stoves. To-date there has still been no serious attempt by pellet stove manufacturers to design

a stove better adapted to high ash fuels such as grass. Options which should be considered in developing a grass pellet stove are 1) some attempt at controlling burn temperature to minimize ash melting, 2) Use of ceramics or similar materials for sections of the stove most susceptible to corrosion, 3) some method for active management of the ash produced, and 4) automatic removal of ash from the stove. Currently, the Harman PC45 corn stove remains the best option for burning a range of biomass pellets, including grass. Any pellet stove with passive movement of ash into an ash container will most likely not be able to handle grass pellets.

b. Light industrial boilers. A 500,000 BTU stoker unit from Solagen, Inc. is capable of burning grass pellets. The unit has been tested with sugarcane bagasse that was nearly 7% ash.

#### **Mixtures as a Temporary Solution**

Anyone who has attempted to burn corn grain in a pellet stove has quickly discovered that this is an imperfect process. Buildup of burned material requires regular maintenance. Many

have discovered materials that improve the burn process when mixed with corn. Mixing corn grain with grass pellets is an excellent way to improve the burn process, with a range in acceptable mixtures from 80:20 to 20:80. A number of individuals are currently attempting to mix a variety of feedstocks into a single pellet. Pelleting of mixed feedstocks may facilitate marketing and be somewhat more convenient for consumers, but it has not yet been shown that a pellet composed of several feedstocks burns any better than simply mixing the feedstocks prior to burning.

A Harman corn stove has been installed in the Big Red Barn on the Cornell campus. This stove is successfully burning a mixture of grass pellets and corn grain.

#### **Status of Pelleting**

Regular requests are received for information on how to pellet feedstocks in a garage or backyard. Many individuals would like to produce their own fuel, but the pelleting process favors relatively large scale equipment.

Considerable pressure and heat are required, along with the ability to adjust dye specifications, in order to produce a high quality pellet. A standard pelleting facility for grass requires a tub grinder or the equivalent for coarse grinding. Then feedstock is fed into a hammer mill to produce the finely ground raw material necessary for pelleting. The finely-ground material is typically elevated into a cyclone for storage prior to feeding into the mill. A feeding screw into the pellet mill is required to control

# Upcoming Events

5302 Continental breakfast provided Sponsored by: Mid York Alpaca Group.

#### **April 20 - Symposium on Energy in the 21<sup>st</sup> Century**

This year's focus will be Energy Sustainable Communities. Cazenovia College. An excellent group of speakers including Ashok Gupta, Director of Air & Energy for NRDC, Rohit Aggarwala, Director of NYC Office of Long Term Planning and Sustainability, Ed Murphy, Executive Director, Workforce Development Institute, Bill Moore, PPM Energy and Horizon, Neil Murphy, President ESF, Ray Cross, President Morrisville College, Matt Driscoll, Mayor of Syracuse, Tim Lattimore, Mayor of Auburn, Mike Arcuri, Congressman, David Valesky, NYS Senator, and other notable speakers will be presenting followed by a panel discussion. Tours will be offered after lunch. This FREE Symposium has limited seating so register NOW. Check: [www.cazenovia.edu/energy](http://www.cazenovia.edu/energy) for details and to register. For further information call Dr. Rhea Jezer: email: [rjezer@twcny.rr.com](mailto:rjezer@twcny.rr.com) phone: 315-727-0123.

**April 20-22 - Northeast Deer & Elk Farmers Convention & Annual Meeting** Senator Inn & Spa Western Ave at I 95 Augusta, ME. For more info call 207-848-3866.

**May 11-13 - NY Horse World Expo** Syracuse.

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product flow. The pellet mill itself must be fitted with a dye that optimizes pellet formation with grasses. Fresh pellets need to be screened to remove fines and cooled to prevent moisture uptake. After cooling, pellets can either be stored in bulk or bagged, both a bagger and a bulk storage system may be necessary. Even if used equipment is purchased, this system will likely cost several hundred thousand dollars, including building costs. Pelleting systems are likely to be economically marginal with a relatively low return per ton of pellets, encouraging larger scale, full-time operations.

At least one smaller system exists that may work for pelleting grass. The Swedish Kompakt Pellet Press is a complete pelleting unit mounted on a roughly 6 x 8' skid. This unit accepts a coarsely ground feedstock and can be purchased with a separate bagging system. The capacity of this unit is approximately 2 to 3 tons of pellets in an 8 hour day. The cost of this unit is now approaching \$100,000, due to the recent decline of the dollar relative to the Swedish monetary unit.

At least one company in the USA is attempting to develop a PTO-driven pelleting system. Such units were apparently available in the past, it is not clear if any are currently available.

**Summary**

Grass combustion is not a new idea. Some effort needs to be invested in modifying appliances for grass. Some government support would be helpful for start up of an industry that requires production and a simultaneous market. The many positive benefits of grass for bioenergy should eventually overcome the lack of an organized political lobby.

# Upcoming Events

**June 9 - Introduction to Growing Tree Fruit** Learn how to grow tree fruit at Cornell Cooperative Extension's 'Introduction to Growing Tree Fruit' workshop on Saturday, 9:00 a.m. to 12:30 p.m., at the Cornell Orchards, Rt 366, Ithaca, NY (across from the Veterinary School). Cornell specialists Ian Merwin and Greg Peck will discuss site selection and planting to fertilization and pest control in this introduction to tree fruit cultivation. The instruction will be geared towards serious home gardeners and people interested in starting a small scale commercial orchard. Emphasis will be on sustainable production practices. The workshop will be held in the orchard so dress for the weather. The \$10 fee includes light refreshments. Pre-registration is required by 4:30 p.m. June 7. For questions, driving directions and to pre-register, call 607-687-4020.

**June 16 - Cornell Sheep Farm Field Days** The Cornell Sheep Program hosts informal, quarterly field days in conjunction with each of the five lambing seasons a year associated with the STAR© accelerated lambing system at the Cornell Teaching & Research Center Sheep Farm. The field days are from 9 am to 3 pm on about the second Saturday after the start of each of the five 30-day lambing seasons. The field days provide an opportunity for participants to see how a highly

## News From the Dairy Princess

### March is National Nutrition Month

*Submitted by Natalie Taylor  
Madison County Dairy Princess*

March is National Nutrition Month. Dairy products such as low-fat milk, cheese and yogurt are the perfect way to make sure you and your family are getting the nutrients they need for overall good health. By simply following the 3-A-Day of Dairy plan you will be providing your body with the following vitamins and nutrients:

**Calcium:** Helps build and maintain strong bones and teeth. It is also vital for nerve function, muscle contraction and blood clotting.

**Protein:** Important for a number of bodily functions that are vital to brain development and the growth of body tissues.

**Vitamin A:** Maintains normal

vision and skin. It helps regulate cell growth and the integrity of the immune system.

**Vitamin B-12:** Essential for the growth and health of the nervous system. It is linked to normal activity of folic acid and is involved in blood formation.

**Vitamin D:** Promotes the absorption of calcium and phosphorous and influences bone mineralization, the strengthening of bones.

**Potassium:** Regulates the body's fluid balance and blood pressure. It is also needed for muscle activity and contractions.



**Phosphorous:** Helps generate energy in the body's cells and influences bone mineralization,

**Niacin:** Keeps enzymes

functioning normally and helps the body process sugars and fatty acids. It is important for the development of the nervous system.

**Riboflavin:** Helps produce energy in the body's cells and plays a vital role in the development of the nervous system.

Remember, it is so easy to include 3 servings of low-fat milk, cheese and yogurt in your diet everyday. To find more nutrition facts about dairy and snack and recipe ideas go to [www.3aday.org](http://www.3aday.org).

# Hedge Bindweed Control One Year After Postemergence Herbicide Applications in Field Corn

R. R. Hahn and P. J. Stachowski, Department of Crop and Soil Sciences, Cornell University

Hedge bindweed, a perennial member of the morning glory family, reproduces by seed and spreads by fleshy, creeping rhizomes (underground stems). Although these rhizomes can be extensive, they are rather shallow (down to 12 inches) compared with those of field bindweed. Hedge bindweed is easier to control than field bindweed.

## Experiments established

Since postemergence (POST), translocated herbicides work best on creeping perennials when applied at the bloom stage and beyond, the situation for these experiments was manipulated to have bindweed near this stage before corn was too tall for good spray coverage. Adjoining blocks of a bindweed infested field near Aurora, NY were fall plowed and fitted in 2003 and 2004. Corn planting, with a zone-tillage planting, was then delayed until late May of 2004 and 2005. Preemergence herbicides were applied to control/suppress yellow nutsedge and annual weeds. POST bindweed treatments were applied when bindweed had 20- to 24-inch vines and corn was at the V3 to V4 stage of development (about 8 inches tall). POST applications were made in 20 gallons per acre of water and included 0.25% (v/v) of nonionic surfactant and 2.5%

(v/v) of 28% urea ammonium nitrate.

## Control 1 year after treatment

Control ratings made 1 year after treatment (YAT) are shown in Table 1 and followed the same trend as ratings made 4 weeks after treatment. Control 1 YAT ranged from 17% with 0.76 oz/A of Beacon to 91% with 16 oz/A of Clarity, while 8 oz/A of Clarity controlled 88% of the bindweed. Distinct, a mixture of dicamba (the active ingredient in Banvel and Clarity) and diflufenzopyr provided 89 and 92% bindweed control when applied at 4 and 6 oz/A respectively.

**Distinct registration is pending in NY State.** Control with 22 oz/A of Roundup WeatherMax improved from 61 to 87% when tank-mixed with 4 oz/A of Clarity. The sulfonyleurea herbicides, Beacon, Exceed, Permit, and Steadfast, also benefited from the addition of 4 oz/A of Clarity. Control with Beacon or Permit increased from 17 to 87% and from 31 to 89% respectively when tank-mixed with Clarity. Bindweed control with Exceed or Steadfast increased from about 76 to 87% when tank-mixed with Clarity. Finally, 5 oz/A of NorthStar or 8 oz/A of Yukon controlled 83 and 89% of the bindweed 1 YAT respectively.

## Yields 1 year after treatment

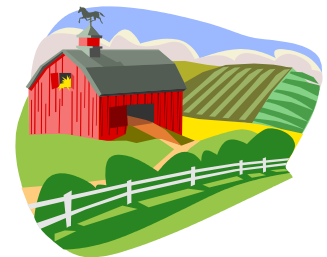
Grain corn yields from the untreated checks of the two experiments 1 YAT averaged 15 Bu/A (Table 1). Yields with 8 or 16 oz/A of Clarity were

144 and 145 Bu/A respectively while those with 4 or 6 oz/A of Distinct averaged 143 and 150 Bu/A. Average yield with 22 oz/A of Roundup WeatherMax increased from 111 to 135 Bu/A when tank-mixed with 4 oz/A of Clarity. Likewise, yields increased from 32 to 143 Bu/A and from 54 to 145 Bu/A when 4 oz/A of Clarity was tank-mixed with 0.76 oz/A of Beacon or with 1 oz/A of Permit respectively. Although the addition of 4 oz/A of Clarity improved bindweed control with Exceed or Steadfast, this did not result in improved yields 1 YAT. These four treatments had an average yield of 133 Bu/A. Finally, the NorthStar and Yukon premixes produced yields that were similar to the yields from their respective tank mixes (Beacon plus Clarity or Permit plus Clarity). The NorthStar and Yukon premixes had an average yield of 145 Bu/A while the tank mixes averaged 144 Bu/A 1 YAT.

The 4 oz/A rate of Clarity applied alone was included in the 2005-2006 experiment only so was not included in the results shown in Table 1. Nonetheless, it seems important to share the results with this low rate applied alone. Bindweed control was 89% and

# Upcoming Events

productive sheep system is managed and to ask questions of sheep specialists about management and marketing of sheep. Topics covered vary with the season. In general, they include lambing management, breeding, feeding, grazing management, and marketing. Registration is required by contacting the Sheep Farm Manager, Brian Magee, at [bhm5@cornell.edu](mailto:bhm5@cornell.edu) or 607-844-8367. For more information about the field days and other events and sheep farming information, visit the Cornell Sheep Program web site: <http://www.sheep.cornell.edu/>.



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yield was 145 Bu/A 1 YAT. These results suggest that this readily translocated broadleaf herbicide can have a significant impact on hedge bindweed and grain corn yield the year of application and the year after treatment. This low rate (4 oz/A) of Clarity could be applied alone or in combinations with other herbicides, depending on presence of other weeds and the type of field corn hybrid being grown. Growers should be reminded that this readily translocated herbicide works best if the bindweed has significant growth (approaching the bud stage) before the corn canopy interferes with good spray coverage.

Table 1. Hedge bindweed control and grain corn yields 1 year after treatment with postemergence herbicide applications in 2004 and 2005 at Aurora, NY.

Herbicides*	Rate	Control (%)		Yield (Bu/A)	
	Amt/A	Alone	+ 4 oz/A Clarity	Alone	+ 4 oz/A Clarity
Clarity	8 oz	88	-	144	-
Clarity	16 oz	91	-	145	-
Distinct**	4 oz	89	-	143	-
Distinct**	6 oz	92	-	150	-
RU WeatherMax	22 oz	61	87	111	135
Beacon	0.76 oz	17	87	32	143
NorthStar	5 oz	83	-	149	-
Exceed	1 oz	76	87	127	143
Permit	1 oz	31	89	54	145
Yukon	8 oz	89	-	141	-
Steadfast	0.75 oz	75	86	137	127
Untreated		0	-	15	-
LSD (0.05)				25	25

\* Applied with 0.25% NIS and 2.5% UAN.  
 \*\* Registration pending in NY State.

### Madison Manager

This newsletter is published monthly by the Agricultural Program of Cornell Cooperative Extension of Madison County. Cornell Cooperative Extension and its employees assume no liability for effectiveness or results of any chemicals for pesticide use. No endorsement of products is made or implied. Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in regulations occur constantly, and up-to-date pesticide recommendations are not a substitute for labeling. Please read the label before use. Whenever trade names or the names of manufacturers are used herein, it is with the understanding that no discrimination is intended and no endorsement by Cornell Cooperative Extension is implied.

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 315-655-2075, fax: 315-684-9290, [www.cce.cornell.edu/madison](http://www.cce.cornell.edu/madison).

**Ag Program Committee:** Jim Burbach - Canastota, Rick Carrier - Canastota, Andy Shephard - Cazenovia, Doug Ford - Bouckville, Ginger Scoville - Morrisville, Nathan Durfee - Chittenango, Suzanne Slomin - Madison.

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