

AGRICULTURAL NEWS

Schuyler and Steuben Counties

Volume 98

January 2017

No. 1

What are the Major Changes for Farmers and Farmworkers?

The revisions to the Worker Protection Standard cover many different areas. The major revisions include:

- Annual mandatory training to inform farmworkers on the required protections afforded to them. *Currently, training is only once every 5 years.*
- Expanded training includes instructions to reduce take-home exposure from pesticides on work clothing and other safety topics.
- First-time ever minimum age requirement: Children under 18 are prohibited from handling pesticides.
- Expanded mandatory posting of no-entry signs for the most hazardous pesticides. The signs prohibit entry into pesticide-treated fields until residues decline to a safe level.
- New no-entry application-exclusion zones up to 100 feet surrounding pesticide application equipment will protect workers and others from exposure to pesticide overspray.
- Requirement to provide more than one way for farmworkers and their representatives to gain access to pesticide application information and safety data sheets – centrally-posted, or by requesting records.
- Mandatory record-keeping to improve states’ ability to follow up on pesticide violations and enforce compliance. Records of application-specific pesticide information, as well as farmworker training, must be kept for two years.
- Anti-retaliation provisions are comparable to Department of Labor’s (DOL).
- Changes in personal protective equipment will be consistent with DOL’s standards for ensuring respirators are effective, including fit test, medical evaluation and training.
- Specific amounts of water to be used for routine washing, emergency eye flushing and other decontamination, including eye wash systems for handlers at pesticide mixing/loading sites.
- Continue the exemption for farm owners and their immediate families with an expanded definition of immediate family.

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Cornell Cooperative Extension

Steuben County

Climate Smart Farming (BF 107)

Develop an action plan for your farm to stay one step ahead of climate change.

Climate Change

The earth's climate is always in flux, but today's rate of change is far beyond what previous generations of farmers have had to face.

In this six-week online course, learn to identify the key impacts on your farm, and how to develop a plan of action to both increase resiliency to extreme temperature and precipitation events, or short term drought, as well as strategies to reduce your farm's greenhouse gas footprint.

Participants will learn from climate experts, educators, and fellow farmers on ways they can proactively approach challenges such as drought, flooding, summer heat stress, changing seasons, freeze risk, and heightened pest and weed pressures.

These practices are not only good for climate preparedness, but also help farms increase their bottom line by building soil health, reducing stress on animals, increasing energy efficiency and efficiency of farm inputs, and protecting crop yields.

Target Audience

ALL LEVELS – This course is for prospective, new, or experienced farmers interested in increasing the resiliency and sustainability of their farm, in order to be better prepared to respond to climate variability and climate change. This course focuses primarily on experiences and practices for the Northeast United States, but the general ideas presented are applicable everywhere.

Course Objectives

At the end of this course, you will be able to:

- Understand the science behind climate change and the impacts to agriculture
- Assess the risks that extreme weather and climate variability pose to your specific farm
- Understand and assess potential opportunities that climate change presents to your farm
- Develop a plan of action on how to respond to increase the adaptation and sustainability of your farm
- Gain familiarity with new tools and resources to arm you with more accurate information to make more informed decisions

Instructors

Dr. Allison Chatrchyan, Director of the Cornell Institute for Climate Smart Solutions Senior Research Associate in the Departments of Development Sociology and Earth and Atmospheric Sciences

Jonathan Lambert, Staff Member with the Cornell Institute for Climate Smart Solutions, Masters in Climate and Society from Columbia University

Course Dates

January 17th, 2017 to February 21st, 2017, with webinars on Tuesdays from 6:30 to 8:00 PM Eastern time.

Agricultural Program Committee

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Brett Chedzoy, Forestry

Cornell Cooperative Extension of Steuben County
Website: www.putknowledgetowork.org
Phone: 607-664-2300

Course Outline

Week 1: Intro to Climate Change and its Impacts to Ag and the Food System

Topics covered: Course structure and overview, Moodle, basics of the climate system and climate change, global and regional impacts of climate change

Week 2: Intro to Climate Smart Farming

Topics covered: Climate smart farming, mitigation, adaptation, responses to impacts, best management practices, class project introduction (come up with a strategy for mitigation, adaptation, or decision tool use on your farm), cool farm/comet farm, opportunities (new crops, new varieties, new markets)

Week 3: Climate Adaptation: Land, Soil, and Crops

Topics covered: Soil health, carbon sequestration, no till/low till, land use, cover cropping, cover crop tool(s), controlled environment ag, adaptive framework

Week 4: Climate Adaptation: Increasing Resiliency to Too Much or Too Little Water

Topics covered: When it rains it pours (water issues are noticed first), irrigation, water quality, runoff, nutrients, irrigation tools

Week 5: Farming for Energy, and Carbon Footprint Reductions

Topics covered: In-depth decision analyses (farm energy assessment, GHG mitigation assessment, cool farm tool, etc.), renewable energy (wind, solar, methane digesters, incentives and programs)

Week 6: Tying it All Together: Realizing Your Climate Smart Farming Goals

Topics covered: Student presentations (adaptation or mitigation integrated into business plan), policy and regulatory atmosphere, review, action plan, farmer input

Cost and Registration

LIMITED OFFER: For the 2017 offering only, attend this course for just \$50!

Register Here:

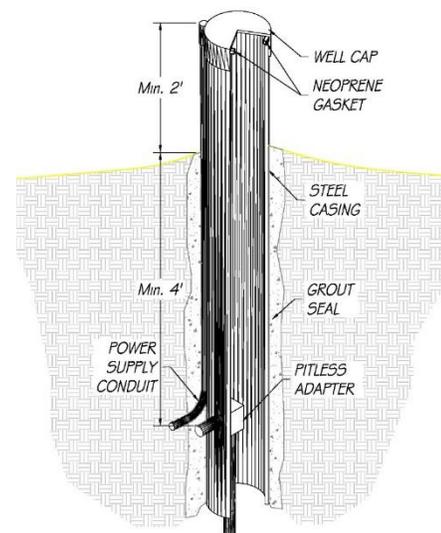
<http://www.nebeginningfarmers.org/online-courses/all-courses/climate-smart-farming-bf-107/>

The Sixth Element By Timothy X. Terry, Harvest NY

Proteins, lipids (fats), carbohydrates, vitamins, and minerals can you guess the missing element (nutrient)? If you said, “water”, you’d be right.

Water makes up roughly 70% of every living thing – plants and animals. Lactating cows require 4-5 lbs. of water for every 1 lb. of milk produced. For a high producing dairy cow this equates to 400 – 500 lbs. of water or approximately 50-60 gallons per day. Some of this is supplied through the wet forages in the diet, but upwards of 90% comes from the drinking water. Obviously, we need to be providing our livestock with a quality source and lots of it.

Figure 1- Sanitary Wellhead



Source Protection

Quality water starts with a properly protected source. Vermin, insects, surface runoff, etc. must be excluded. For a drilled well this means a 6” or

8" diameter steel casing down and into the bedrock. This casing should extend at least 2' above the surrounding ground, and the ground graded so that surface water will drain away from it (see Fig. 1). A grout seal should have been established around the casing at the time of construction. This keeps any surface runoff or leached contaminants from entering the well.

The cap should fit snugly, be bolted or clamped on, and have a neoprene gasket between the casing and the cap (Fig. 1). This cap should never be welded – serviceability is important. It should also be water-tight. Therefore a piece of diamond plate with a concrete block or large rock on top doesn't really cut it.

Spring developments need to be constructed in a similar manner -- covers that shed rain water and prevent unauthorized entry, grading that diverts surface runoff, and properly screened vents that exclude vermin and insects.

If either of these sources is located in a livestock or cropped area then a minimum 100' buffer should be fenced off and maintained around the source point. Maintained means that this area is trimmed up once or twice per year. Trimming builds a tighter sod (better filtering of surface water), controls weeds, and eliminates woody growth. Failure to do so usually means someday you'll have to pull a well pump in weeds 4'-6' high through the branches of a Honey locust or thorn apple, or worse – multiflora rose!

Ponds, unfortunately, are much more difficult to protect. Yes, you can fence out the livestock, but you have little control of vermin, deer, and wild fowl. However, the surrounding areas should still be trimmed up each year because the roots of trees and shrubs can actually compromise the structural integrity of the pond embankments. Likewise, burrowing critters should be dealt with quickly and with extreme prejudice, but I digress... The supply lines from the sources should be buried a minimum of 4' below finished grade with a layer of screened sand around it. At this depth it is not likely to freeze or be disrupted by a piece of tillage equipment. The sand keeps large, sharp rocks from cutting the plastic piping during backfilling or over time from freezing and thawing of the ground above. Moreover, the sand also

serves as a warning device during future excavations – when the sand shows up in the trench you know you are close to the pipes and then to expose the pipes by hand is much easier. Alternatively, they could be threaded (sleeved) through light weight PVC pipes. Should the supply piping fail, or a larger diameter pipe be required in the future, a new one is easily inserted by connecting to and removing the existing pipe. Smooth interior walled pipe should be used for the sleeve. Even though it is functional and relatively inexpensive, the corrugations in a standard drain tile make it very difficult to slide a new piece of pipe through it.

In the Barn

While the waterer is the most prominent part it is just that – *part* of a system. There is the well or spring and well pump, of course, but there is also the piping to get it there, the pressure tanks, and usually a reservoir for times of peak demand like right after feeding or milking.

When planning watering systems, whether it is in the barn or out in the pasture, it is usually easiest to plan, or size it, from the furthest point and then work backwards toward the point of origin. So first let's think about the waterer or waterers. Ideally, you'd like to have 3"-3½" of waterer access per cow in that particular pen or paddock. That's 3"-3½" that the cow can actually get to. Don't count the part that sits against a concrete barrier or a fence line. You also want at least two waterers per group. That way a boss cow can't prevent a new heifer from getting a drink.

In the barn, place waterers 60' to 80' apart, in a raised cross alley, if you can, and on a raised curb so that the rim is 24"- 32" high. You can achieve a similar result in the pasture by strapping the water tub to a pallet. This will minimize the wet spot and allow you to easily move a partially filled tub to a new paddock using a set of pallet forks.

At the ends of the row of freestalls position the waterer on the side away from the stalls. Within the row of stalls place it on one side or the other but with a solid barrier behind it so the stalls remain dry. Alternatively, widen the cross alley from 16' to 26' and place the waterer in the middle. This keeps it away from the stalls and allows another cow to pass behind the one that is

drinking. Just beyond the end of the parlor return alley is another good spot especially if it is filled with water off the pre-cooler or chiller. This water is somewhat tempered from the heat exchange with the milk, and the cows seem to drink more of this than the untempered water in the freestall.

Placing a barrier above the waterer keeps animals from standing in it. However, place this barrier 20"- 24" above the rim and suspend it from above – you don't want to limit the access for drinking.

Never place a waterer in the feed alley (not possible in a tie stall). You end up with soggy feed no one eats and it only attracts flies. Similarly, in a bedded pack barn place the waterers on the back side of the feed alley with a barrier on the pack side to prevent them from drinking while standing on the pack. This will keep the pack area around the waterer from becoming a swill hole.

You have several choices for the types of piping to get water out to the waterer: Copper, galvanized, PVC, HDPE, and PEX. Copper is great in the milkhouse and utility room but may not be the most cost effective for a barn watering system. Galvanized pipe is strong, but requires threading dies and fittings, is prone to rust at the fittings, and susceptible to hard water deposits.

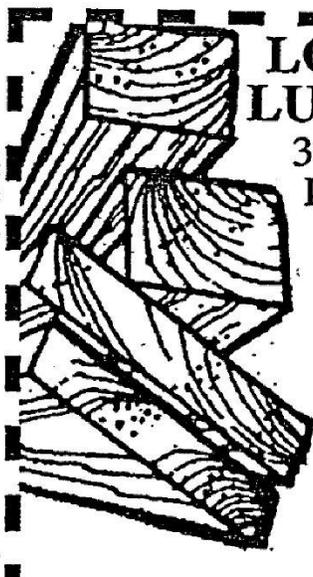
PVC is rigid, although long radius curves with smaller diameters are possible, preformed fittings are required in order to make directional changes.

HDPE (High Density Polyethylene) is the black pipe that usually comes in 250' rolls. Specify minimum 160 psi. Bends to a tighter radius than PVC. Uses barbed fittings and band clamps. Easily replaced in a sleeved pipeline.

PEX (cross linked polyethylene). Relatively new, but functionally similar to HDPE. It can tolerate stresses (i.e.-freezing) without bursting like HDPE. Kinks and freeze blisters are easily corrected with a blow dryer or heat gun. Requires specialized tools in order to make connections. May not be as readily available as HDPE.

Waterers typically require a supply volume of 3 – 5 gallons per minute. That roughly translates into a 3/4" diameter pipe to each waterer. So now you see why a single 3/4" or 1" pipe supplying all the waterers on one side of the barn (Daisy Chaining) can't possibly work.

So how big of a supply line do you need? It's simple to figure out if you keep in mind these rules of thumb: #1. If you increase the diameter of the pipe 50% you double the capacity; #2. If you double the diameter you quadruple (4X) the capacity (all other things being equal). For example, starting at the waterer furthest from the source (#4 Fig. 2) you know you need at least a 3/4" pipe (blue lines). Working back towards the source there is a second waterer (#3), so using rule of thumb #1: 3/4" + (50% of 3/4") = 1 1/8" diameter needed. However, 1 1/8" is an odd size and generally you move up to the next size pipe, but, in this case, a 1" diameter pipe should be sufficient. Continuing back you have two more waterers (1 & 2) so using rule #1: 1" + (50% of 1") = 1 1/2" diameter – a standard pipe size, or using rule #2 (4 waterers total): 3/4" x 2 = 1 1/2". Funny



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The Supply

how that works out, huh? So to supply the entire side of the barn you would need at least a 1½” pipe coming from the source. Optionally, you could step down the pipe size to 1” between the first and third waterers. However, if you were to maintain the 1½” pipe all the way around the barn it would provide additional flexibility and a factor of safety. Should one of the mains fail, you could still supply water from the other direction you would just need to have strategically placed valves during installation. One more important design feature – each waterer must have its own shut-off valve. That way if something happens to an individual waterer you don’t have to shut down the entire system while you make repairs.

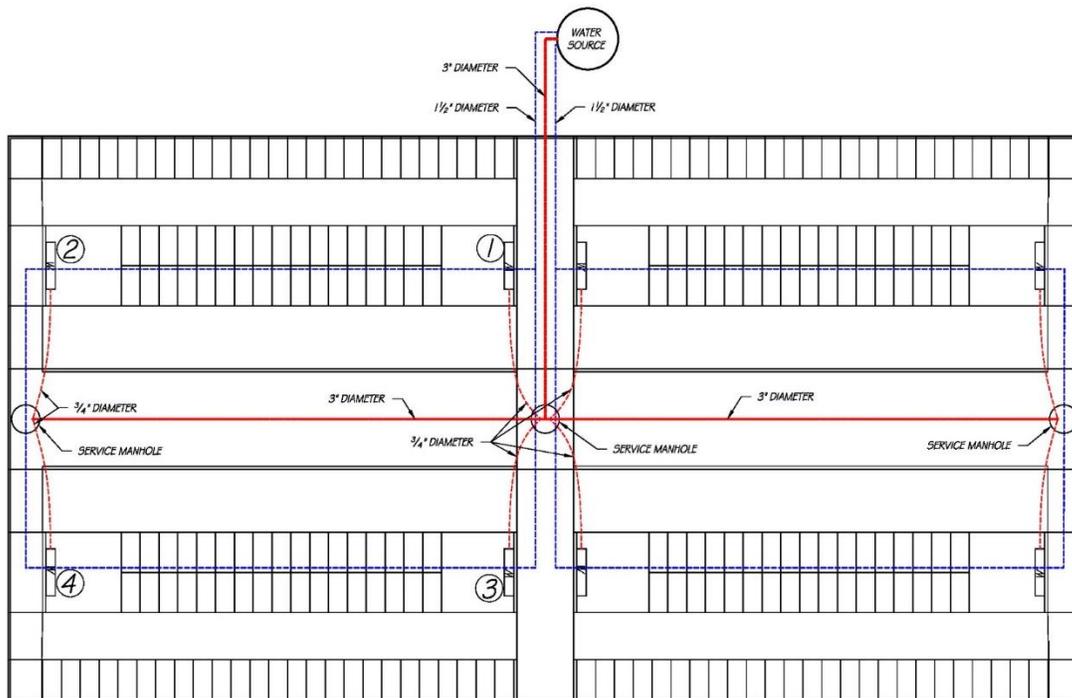
Similarly, in stall barns, you ALWAYS want to loop the water system. You may also want to consider installing several valves and unions in the loop to make isolating and servicing small sections easier.

In an intensive grazing situation consider how many waterers you’re likely to have on any one line and size accordingly. Long runs (>1000’) and/or changes in elevation (>33’) may require some engineering due to friction and head losses in those situations.

As an alternative in the freestall, you could install

a single 3” main (red lines, Fig.2) and then tee off of the main with individual valves and ¾” pipes to each waterer. The service manholes provide easy access to the valves and a shorter section of pipe to replace should the need arise. The 3” diameter pipe is oversized for its present installation, however, in this configuration it would be very easy to extend the supply pipe to service the next expansion. A 3” pipe should supply 16 waterers so potentially you could double the size of this facility without any retrofitting of the water supply system.

As a further alternative you could use the 3” line to build a system with virtually no moving parts using Archimedes’ principles of hydrostatics. In order to work there must be a reservoir (large tank) set up at a specified elevation. The 3” pipe is plumbed into the bottom of the reservoir and then branches out to each of the waterers. (These waterers are usually cast-in-place concrete vats.) A riser from the main line feeds up into the bottom of the waterers, and the water level is determined by the elevation of the water in the reservoir. Since water always seeks its own level, if cows begin drinking heavily from one waterer (i.e.- parlor exit, barnyard entrance) more water can be supplied very quickly from the reservoir or a nearby waterer. Unfortunately, this system requires a laser level and can be tricky to set up.



Brewers, Growers Bet Farm On Fickle Grain

**Farm brewery law has cut taxes, fees while
easing regulations for brewers**

Published on December 14th, 2016

Cornell Cooperative Extension

Broome County

Malting barley is an essential ingredient for brewing beer. And since its very recent reintroduction to New York agriculture after several decades of prohibition and disease-induced dormancy, it has also been very challenging to grow to market grade. Those challenges, paired with the rising demands of the state's three-year old farm brewery law, dominated discussion at the Southern Tier Farm Brewery Summit Nov. 10.

Hosted by Cornell Cooperative Extension of Broome County at its headquarters, the summit brought together brewers, grain growers and malt house owners for formal and informal conversations with educators and experts from Cornell University and Hartwick College, and officials from state regulatory agencies.

"The event served as networking hub, sounding board and research access point for those staked to the state's farm and craft beer industry," said event organizer Laura Biasillo, CCE Broome County agricultural economic development specialist. "It's so important to bring all these groups together to talk about what is occurring both in research and real-world growing scenarios so that everybody is on the same page.

" Designed to spur demand for locally grown products and create new business opportunities in and around the brewing industry, the New York farm brewery law has provided tax and fee cuts while easing some regulations for brewers, who must use New York state-grown ingredients. It also features an escalating mandate for inclusion of New York ingredients – at least 60 percent of a beer's hops and 60 percent of its other ingredients will have to be New York-grown by 2018. Those numbers jump

to 90 percent on Jan., 1, 2024. Currently, the threshold for New York-grown ingredients is 20 percent.

Malting barley, which provides a beer with some of its flavor and texture characteristics as well as its color, is by far the largest piece of the "other ingredients" puzzle. The rising legislation requirements, along with the current challenges of producing malting-grade barley, has many brewers growing increasingly nervous.

Due to its strict moisture and chemical demands, malting barley is a much more sensitive crop than traditional New York-grown grains such as wheat and feed barley. More susceptible to fungal diseases than other grains, malting barley also has a much smaller harvest window and must be dried with great care and precise timeliness. Despite those challenges and the marginal progress made thus far in production-rate success, experts at the Farm Brewery Summit emphasized that the legislation's ingredient inclusion requirements are within reach.

"They are reasonable and we're going to get there," Aaron MacLeod, director of the Hartwick College Center for Craft Food and Beverage, told attendees.

A chemist, MacLeod provides quality-control and validation testing for small grains and is a widely recognized expert on malting barley quality.

"Whenever you do something new, there is a learning process," he said, "and malting barley has to meet very tight quality specifications to ensure that it will perform well in the malthouse and the brewery.

"To substantiate his point, MacLeod cited work by the Cornell Small Grains program, a team of College of Agriculture and Life Sciences researchers and CCE educators. Led by Mark Sorrells, Cornell professor of plant breeding, plant pathologist Gary Bergstrom and extension specialists Mike Stanyard, Kevin Ganoie and

Justin O’Dea, the group is immersed in trials to pinpoint a handful of malting barley varieties suited to New York’s diverse microclimates.

The team also has made significant and immediate strides by delivering current research to growers who are having more success bringing malting barley to market grade.

“At our lab, we have been testing the quality of harvest samples from around the state and are seeing that farmers who work closely with the CCE specialists for several growing seasons are more likely to ‘make the grade’ on their barley crop than those trying for the first time,” MacLeod said. “And those growers are getting more successful each year. That shows that the effort is paying off.

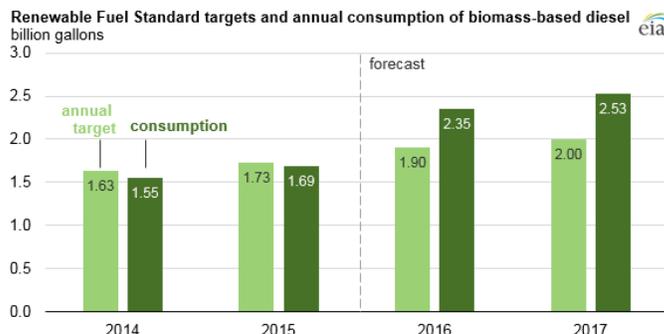
” Still, MacLeod emphasized, the malting barley re-introduction process will require time, patience and even more collaboration through events like the Farm Brewery Summit.

“Farm brewing requires very close relationships throughout the value chain, which is why meetings like this are so important,” he said. “Bringing the farmers, malsters and brewers to learn together helps build common understanding. Being involved in farm brewing means you can’t have an anonymous supply chain.”

Biomass-Based Diesel Growth Expected

EIA uses 2017 RFS targets in the final rule in developing U.S. biofuels forecast
Published on December 13th, 2016

Sean Hill,
U.S. Energy Information Administration



(Source: U.S. Energy Information Administration, Short-Term Energy Outlook, and Environmental Protection Agency)

On November 23, the U.S. Environmental Protection Agency (EPA) issued its final rule for the 2017 Renewable Fuel Standard (RFS) program year, with higher targets than those initially proposed in May. EPA increased both the advanced biofuels and total renewable fuel targets while keeping the cellulosic biofuel and biomass-based diesel targets unchanged.

EIA used the 2017 RFS targets in the final rule in developing the U.S. biofuels forecast through 2017 for the latest Short-Term Energy Outlook (STEO). EIA expects that the rule will have the greatest impact on biomass-based diesel consumption, which is forecast to continue its recent growth into 2017, while ethanol consumption remains largely unchanged.

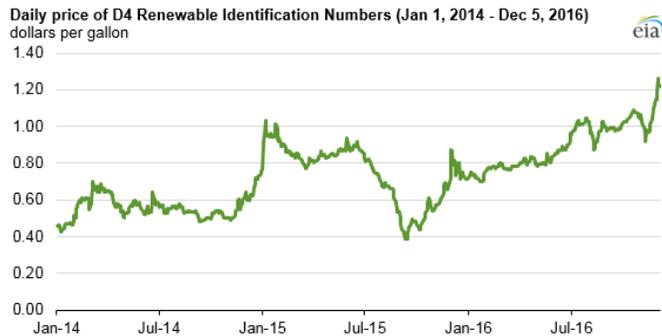
Biomass-based diesel generates Renewable Identification Number (RIN) credits, which are used by refiners and importers of gasoline and diesel to meet the RFS targets for use of biomass-based diesel, advanced biofuels, and total renewable fuel. Biomass-based diesel RINs, also known as D4 RINs, are more valuable than D6 RINs for grain-based ethanol given their flexibility in meeting multiple RFS targets.

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Steadily increasing RFS targets for biomass-based diesel have led to increasing D4 RIN prices, which, along with the blender's tax credit, have helped encourage growing levels of biomass-based diesel consumption in 2015 and 2016.



(Source: U.S. Energy Information Administration, based on Oil Price Information Service (OPIS))

In its latest STEO, EIA forecasts that biomass-based diesel consumption will increase from 1.7 billion gallons in 2015 to a record level of 2.5 billion gallons in 2017, 0.5 billion gallons above the biomass-based diesel RFS target of 2.0 billion gallons. The additional biomass-based diesel will help meet the advanced biofuel RFS target.

Ethanol is the most-consumed renewable fuel in the United States, and plays the largest role in compliance with the RFS target for total renewable fuel. EIA assumes that ethanol consumption will continue to be driven primarily by domestic gasoline demand. Almost all motor gasoline sold in the United States is blended with up to 10% ethanol, but infrastructure, economic, and distribution issues still limit significant growth in ethanol blends above 10%.

Ethanol consumption averaged about 14.0 billion gallons in 2015, and it is forecast to average 14.4 billion gallons in both 2016 and 2017. This level of consumption results in the ethanol share of the total gasoline pool averaging 10% in both 2016 and 2017. Any shortfalls in RFS compliance in 2017 are expected to be met by existing RINs in the RIN bank: a supply of RINs generated in previous

years in excess of the RFS targets in those years. On November 23, 2016, EPA estimated that approximately 1.54 billion gallons can be used for compliance in the event of a shortfall heading into 2017.

How To Comply With the FSMA

Farm Credit East

Farm Credit East to host informational webinar on December 20

To help navigate the complicated terrain, Dr. Wesley Kline, of Rutgers Extension, will present a practical discussion of how FSMA regulations apply to growers of fresh produce, along with some tips on how to comply. (U.S. Department of Agriculture, Flickr/Creative Commons)

The Food Safety Modernization Act represents a significant overhaul of our nation's food safety laws. Now that the rules are final and beginning, Farm Credit East will be hosting a free webinar on Dec. 20 at 11 a.m. to help Northeast producers understand how FSMA will impact their farm businesses.

With thousands of pages of regulation, more than a dozen rulemakings, at least 10 guidance documents, and a number of reports, standards and notices, FSMA can seem pretty intimidating. To help navigate the complicated terrain, Dr. Wesley Kline, of Rutgers Extension, will present a practical discussion of how FSMA regulations apply to growers of fresh produce, along with some tips on how to comply. Whether your farm is large or small, sells to wholesalers or direct-to-consumer, there will be information relevant to your operation.

Join this informative session on Dec. 20 from 11 a.m. to noon to learn more about FSMA regulations. This webinar is open to all interested northeast farm-related businesses and is free to participate. To register, visit FarmCreditEast.com/webinars.

Winter Forage Meetings Returning in 2017

King's AgriSeeds,

Cornell University are again hosting winter forage seminars

High quality forages have the potential to increase milk production while reducing ration costs, increasing total forage yield and digestibility, and improving nutrient management on the farm. (U.S. Department of Agriculture, Flickr/Creative Commons)

Feed costs (including homegrown forages, grains and purchased feeds) are the No. 1 cost on virtually all dairy farms. Yet this is an area that is often left underexplored. While increasing forage yield and quality has been a focus on progressive dairies for quite some time, the focus has been limited to just a few crops. On many dairies forage feeding has been restricted due to either inadequate supply or inconsistent quality. Real traction on a farm's profitability requires a multifaceted cohesive approach.

King's AgriSeeds is prepared to offer solutions to many of these common quandaries. Their yearly Winter Forage Meetings are back for 2017. The company, based near Lancaster County, Pennsylvania, specializes in forage and cover crop seeds with high-end genetics. This year, King's has partnered with Cornell University to deliver a comprehensive educational program on maximizing forage value.

The seminar and case study will focus on elevating the growing and feeding of forages beyond the traditional parameters of tonnage, quality and the basic high forage ration. Newly developed fiber digestibility tests will be introduced that can give you and your management team confidence in feeding innovative forage species. High quality forages have the potential to increase milk production while reducing ration costs, increasing total forage yield and digestibility and improving nutrient management on the farm.

This advanced forage seminar for all types of dairies and their advisors will feature both university and industry leaders, and a case study of Bru-Mar Farms of Fort Plain, N.Y.

Overview of topics:

1. Crop rotations: Perennial and annual combinations as well as alternative crop rotations that make milk
2. Improving forage quality: Fiber digestibility and advances in grass quality
3. Maintaining profitability: How forage quantity and quality affects farm profitability and sustainability
4. Implementing change: Case study on one producer's success with high forage rations and improved forage production

Speakers include:

1. Joe Lawrence grew up on a dairy farm in northern New York and went on to complete undergraduate degrees in engineering and agronomy. After a short experience with Soil and Water Conservation District he joined the Nutrient Management Spear Program at Cornell and earned a Masters Degree in Crop and Soil Sciences with a focus on nutrient management. This led to an opportunity with Cornell Cooperative Extension of Lewis County as a field crops specialist where he gained a true appreciation and deep interest in a whole farm approach to forage management. This was followed by an opportunity in private crop consulting and valuable experience that furthered his interest and understanding in forages, before joining the PRO-DAIRY team at Cornell University as a forage management specialist in 2016.
2. Thomas Overton, Ph.D is professor of dairy management in the Department of Animal Science at Cornell University. Tom is recognized nationally and internationally for his research and extension efforts relating to metabolism, immune function and nutritional physiology of the transition cow and his work on milk component production in cows. He serves as Director of the PRO-DAIRY program at Cornell, and as Associate Director of Cornell Cooperative Extension

works with statewide and regional extension teams within New York to enhance the dairy and agricultural industries in New York State. He teaches the applied dairy cattle nutrition course for undergraduates and co-teaches a course in dairy nutrition for veterinary students.

3. Shawn Lasher: is a member of the management and nutrition company Progressive Dairy Solutions based in Oakdale, Calif. He was an operations manager of a large farm in central New York for seven years. Shawn has worked in the feed mill industry consulting for grain companies before becoming an independent Nutrition Consultant. He provides nutrition and crop advisement to dairies across the northeast. His focus is entire farm profitability and improvement through adapting new technology.
4. Devesh Singh: is director of research at Barenbrug USA. Devesh joined Barenbrug in 2000. His main area of interest is forage cropping systems research, grass and legume variety selection, and their interaction with animals. Devesh resides in Albany, Ore., and works cooperatively with forage agronomists, breeders and animal scientists around the world. Before joining Barenbrug, Devesh worked at Oregon State University in dryland cropping systems and grass seed production research. Devesh received his Bachelor of Science in India with a major in agronomy and minor in animal husbandry. Devesh earned his Masters of Science degree in Horticulture from University of Florida in 1995. Devesh currently is involved in breeding cool season forage grasses with unique properties that lead to high fiber digestibility and are suitable for high producing dairy cows.

Case Study Profile:

Bru-Mar Farms owners Bruce, Marcy & Eric Matis – Fort Plain, New York – Milking 300 Holsteins 2x – Rolling Herd Average 28,400 – Butterfat 4.1% Milk Protein 3.23% – 70% on farm grown feed – Cropping system focuses on digestibility and yield

Register by Jan. 15, 2017, and receive a \$100 coupon from King's AgriSeeds! Registration fee: \$50 per person per site. Discounts are available to extension staff and university faculty.

Dates and Locations:

- January 31: Ramada Conference Hotel, State College, Pa.
- February 1: Holiday Inn, Waterloo, N.Y.
- February 2: New Hartford, N.Y. Contact King's AgriSeeds, (717) 687-6224 for more information and to register. — King's AgriSeeds -

Wishing all
a safe
and
Happy
New Year!

Cornell Cooperative Extension
of Steuben County
3 East Pulteney Square
Bath, NY 14810

ADDRESS SERVICE REQUESTED

COMING EVENTS:

January 6-7-NYS Maple Conference, Verona NY, Contact: Keith Schiebel, kschiebel@vssschoools.org;
cornellmaple.com

January 14-Western NY Maple School, Contact: Deb Welch, Cornell Cooperative Extension of Wyoming
County, 401 North Main Street, Warsaw NY 14569; 585-786-2251; djw275@cornell.edu

January 17-19-Empire State Producers Expo Oncenter Convention Center Syracuse, NY. This show
combines the major fruit, flower, vegetable, and direct marketing associations of New York State in order to
provide a comprehensive trade show and educational conference for the fruit and vegetable growers of this state,
as well as the surrounding states and Eastern Canada. Please click on the picture to learn more.

**January 23, 1:00 pm to 2:30 pm – New revisions of the Worker Protection Standards take effect January
2, 2017 while others take effect January 2, 2018.**

NYDEC Region 8 Pesticide Control Specialist, Chris Wainwright will be covering the updates on the new
revisions on Monday, January 23, 2017, 1:00 pm to 2:30 pm at Cornell Cooperative Extension of Ontario County,
480 North Main Street, Canandaigua, NY 14424.

Program fee is \$15.00 per person.

To register: Registration flyer available at www.cceontario.org

Fill out the tear-off form and mail registration form and check to: Cornell Cooperative Extension, WPS, 480 North
Main Street, Canandaigua, NY 14424 **OR:** Call 585-394-3977 x 427, email nea8@cornell.edu with your name,
address, phone, and number of people attending.

**January 30-February 27 - 2017 Pesticide Training and Recertification Classes This training is NOT a 30-
hour certification course for commercial licenses.**

The Pesticide Training and Recertification classes will be held at Cornell Cooperative Extension – Ontario
County, 480 North Main Street, Canandaigua, NY 14424. The classes will be on Mondays, January 30, February
6, 13, 20, 2016 from 7:00 pm to 9:30 pm with the exam being offered on Monday, February 27, 2016 from 6:30
pm – 11:00 pm.

To receive registration material or for additional information, contact Cornell Cooperative Extension of Ontario
County at (585) 394-3977 ext. 427, email nea8@cornell.edu or ext. 436, email rw43@cornell.edu

The registration form and more information is available on-line at www.cceontario.org

