

Northeast Pasture Consortium News Update August 2011

Linking Graziers, Researchers, Extension, and Technicians

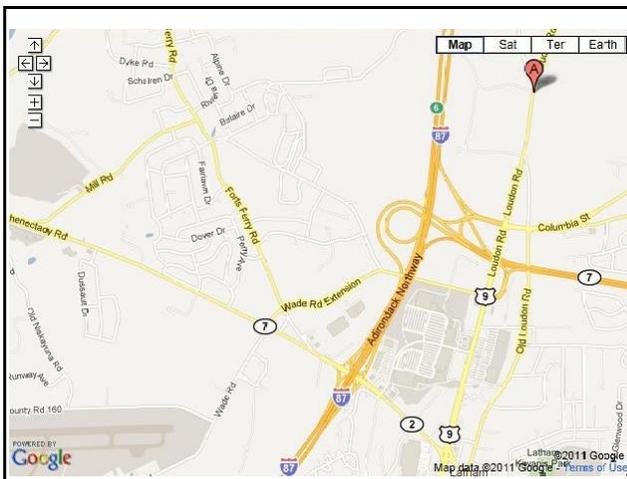
<http://www.grazingguide.net>

James Cropper, Executive Director & Editor



2012 NORTHEAST PASTURE CONSORTIUM ANNUAL MEETING

The 2012 annual meeting will be held in Latham, NY at the Century House Hotel and Conference Center on January 25 and 26 in advance of the Winter Green-Up Grass-Fed Beef Conference being held on January 27 and 28 at the same location. The Century House Hotel and Conference Center is located on Route 9 within a half mile of the Adirondack Northway I-87, exit 7.



Century House Hotel & Conference Center, Latham, NY Location - Located at A, upper right. Note Albany Airport in lower left corner.

Your Executive Committee and other members are putting together the program for 2012 annual meeting. The next newsletter will have the registration form and agenda. Look for it in November. The Winter Green-Up Grass-Fed Beef Conference details will be in the November News Update.

Driving Directions:

From the East:

Take the NYS Thruway, I-90, Westbound to Exit B-1 (Berkshire Spur). Follow to I-787 North to Route 7 West (Schenectady and Saratoga Springs). Take the exit for Route 9. Turn left on

Route 9 (North). Go 1/2 mile north and Hotel/Restaurant/Conference Center with three entrances/exits will be on the right-hand side of Route 9.

From the West:

Take the NYS Thruway, I-90, Eastbound to Exit 24. Take the Adirondack Northway, I-87, North to Exit 7 (Route 7), merge from right lane onto Eastbound Route 7 towards Troy. Stay in right lane for immediate exit onto Route 9 as right lane merges onto Route 9 North. Go 1/2 mile north and Hotel/Restaurant/Conference Center with three entrances/exits will be on the right-hand side of Route 9.

From the South:

Take the NYS Thruway, I-87, Northbound to Exit 7 (Route 7), merge from right lane onto Eastbound Route 7 towards Troy. Stay in right lane for immediate exit onto Route 9 as right lane merges onto Route 9 North. Go 1/2 mile north and Hotel/Restaurant/Conference Center with three entrances/exits will be on the right-hand side of Route 9.

From the North:

Take the Adirondack Northway, I-87, Southbound to Exit 7 towards Troy/Cohoes. Stay in right lane for immediate exit onto Route 9 as right lane merges onto Route 9 North. Go 1/2 mile north and Hotel/Restaurant/Conference Center with three entrances/exits will be on the right-hand side of Route 9.

From Albany International Airport, Albany-Rensselaer Train Station, and Albany Greyhound Bus Station

The Century House offers free transportation to and from the Albany International Airport, the Albany-Rensselaer Train Station, and the Albany Greyhound Bus Station.

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The Century House has hosted the **Winter Green-Up Grass-Fed Beef Conference** every year (3) so this speaks well of the host.



Below are pictures of the meeting room and dining room facilities. Plan on attending as we will have some very interesting sessions again. They are:

- Nutrient Management on Pastures,
- Pastureland Conservation Effects Assessment Program (CEAP) Findings,
- Silvopasture Opportunities in the Northeast,
- Producer Showcase,
- Grass Species and Varieties Grazing Trials Results, and
- Organic Farming Methods of Seeding & Managing Pastures



One of our farmer members asked some timely questions about how to do nutrient management planning on pastures, so we thought this would be a good time to cover this subject with a session devoted to it this year. Pastures are quite different from cropland when it comes to nutrient management. Most often, all nutrients are surface applied and animal wastes can be distributed

very unevenly. This causes pasture soils to have widely varying nutrient concentrations, vertically and horizontally.

The NRCS-ARS Pastureland Conservation Effects Assessment Program (CEAP) just recently finished evaluating the primary NRCS conservation practices used on pastures throughout the US. Matt Sanderson will be returning to the Northeast as our guest speaker to present the work his group did on that evaluation.



Silvopasture is an old-new concept providing pasture for livestock while growing merchantable trees. We will be presenting work done at Appalachian Farming Systems Center of ARS at Beaver, WV as well as work being done in NY and New England where hardwood forests are thinned to allow forage growth as well as timber.

The Producer Showcase is a new session that we would like to make a yearly one. Here we will showcase Consortium farmer members' farms so they can share with us how pastures work for them along with the rest of their operations.

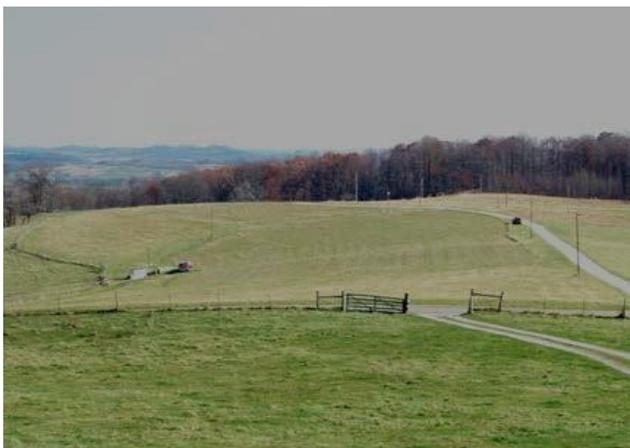
The results from three grass species and varieties grazing trials from around the Northeast will be presented at the Grazing Trials Results session.

The Organic Farming Methods of Seeding and Managing Pastures session will address the issues of seeding and managing pastures without resorting to chemical fertilizers and pesticides.



2012 USDA Budget Calls for Closure of the North Appalachian Experimental Watershed (NAEW) at Coshocton, Ohio

The NAEW along with the Appalachian Farming Systems Research Center at Beaver, WV (*see following article*) have been identified for possible closure in FY2012 as proposed in the President's budget for FY2012. Eight other ARS locations in other parts of the country have been identified for closure as well. Initial steps by the House support this budget. However, no action has occurred in the Senate. This potential double hit to our efforts to support pasture-based farming in the Northeast is disconcerting when the USDA budget has plenty of pork to slash elsewhere. This is especially true of the subsidy programs since crop prices are at or near all-time record highs. These prices are also likely to stay there unless several unlikely events are to take place: climate change reverses itself on its own (no chance for world-wide agreement AND adherence), ethanol will no longer be mandated as a gasoline additive, and the Chinese economy will tank and they will become self-sufficient in corn and pork production again.



Instrumented grassed watershed at NAEW, Coshocton, OH. Gauging station is at left center.

NAEW looks at the **environmental impacts of**

grazing systems. For instance, the NAEW monitoring infrastructure allowed environmental recommendations to be developed for fertilizer application rates on pastures. A new management-intensive grazing (MIG) project is investigating the water-resource benefits of frequent rotation of livestock between small paddocks in a pasture for organic and non-organic production. This comprehensive evaluation is being conducted with The Ohio State University, and includes impacts on surface and subsurface water quality, animal health, and changes in plant species. NAEW is a primary provider of pasture impacts on water quality in the US. **Lloyd Owens** of NAEW moderated and spoke at one of our 2011 Annual Meeting sessions on the subject of *Pastures and Chesapeake Bay Water Quality*.

Organic grazing: The NAEW is currently building on a long history of research on environmental aspects of conventional grazing practices. Two grazing systems are currently being investigated - management-intensive grazing, and continuous grazing where nutrient requirements are being met by animal waste alone. The NAEW historical data and monitoring infrastructure are invaluable for these studies.

As seen below, ARS research units work closely with other researchers on projects of mutual interest. This extends federal tax dollars by reducing redundant, parallel research and costs are shared among state, federal, and, at times, private partners. Lose the ARS research unit, and this partnership of coordinated research is lost along with an already paid-for research facility. Often this research cannot continue because the remaining institutions have limited funding as well and the research projects that interest the Pasture Consortium then compete for even fewer research dollars, often losing out to the glitzy new areas of research interest.

The NAEW collaborates with universities and

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others on grants and other projects. Current projects include (*projects in italics are of particular interest to the Northeast Pasture Consortium*):

- Research project investigating how climate change affects corn production in the Midwest (USDA NIFA-funded 3/2011). Iowa State is the lead university.
- *Proposed project titled, “Quantifying the spatial location of small-scale land management changes in large watersheds using hydrological modeling” (USDA NIFA-pending 5/2011). This project will investigate methods to quantify farm-field conservation practices and their impact at a larger downstream point for purposes of water quality trading. This project will use much of the NAEW small watershed data in data analyzes and in watershed modeling. This proposed work is in collaboration with The Ohio State University.*
- Collaborative project with The Ohio State University on water-quality trading in the Scioto River Basin in Ohio (active).
- Collaborative project with The Ohio State University on water-quality in the Sugar Creek Basin in Ohio (active).
- *Collaborative planning grant with the University of New Hampshire titled, “Seed Grant Proposal: Towards Sustainable Food, Fuel, and Forests in New England” (USDA-NIFA, pending). June 2011.*
- *Planning grant for organic agriculture (USDA NIFA – funded 3/2010) titled, “Environmental Sustainability of Organic Farming Systems: On-Farm, Experimental, and Watershed Assessments”. This is in collaboration with The Ohio State University, USDA-ARS (Coshocton, OH and Beaver, WV locations), Small Farm Institute, Organic Valley, Central State University, Rodale Institute, and Discovery Farms (U. of Wisconsin).*
- *The NAEW is collaborating with Ohio State University/Ohio Agricultural Research and*

*Development Center in Wooster, Ohio on a 3-year grant from NIFA's **Organic Agriculture Research and Extension Initiative**. The project is studying the impacts of organic animal production systems on water quality and quantity in Ohio. The NAEW portion is to use NAEW small experimental watersheds in a side-by-side comparison to investigate environmental impacts of transitioning to certified organic beef production in continuous grazing and management intensive grazing systems.*

- *A collaborative project with Nancy Shappell, USDA-ARS, Fargo, ND, who is looking at estrogenic activity in runoff following winter application of manure.*

OSU grad student projects at NAEW:

- Effects of biochar on soil quality and crop productivity
- Assessing and improving soil quality in degraded urban soils
- *Greenhouse gas emissions under different crop management practices*
- Water quality trading
- *Climate change data evaluation using NAEW historical data*



Downstream of a gauging station at NAEW during a runoff event.

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2012 USDA Budget Again Calls for Closure of the Appalachian Farming Systems Research Center (AFSRC) at Beaver, West Virginia

AFSRC at Beaver, WV is again slated to be closed in 2012 as it was in 2011 since it is not funded in the USDA Budget proposed by President Obama.



AFSRC is identifying plant resources and plant management strategies that can help control gastrointestinal worms in small ruminants.

This is a valuable research unit that does much good, practical research to improve the profitability of pasture-based farms throughout Appalachia from Georgia to Maine. As you may recall, Jim Neel from the Center has reported to the Consortium about the work that they are doing cooperatively with West Virginia University, Virginia Tech, and Clemson University with pasture-finished beef. This work is important in helping pasture-based beef farmers learn how to finish beef cattle on pasture to ensure meat palatability and healthfulness. This provides an opportunity for farmers to retain ownership of their cattle, if they wish, until they go to slaughter. It also provides employment for local meat processors, reduces energy use associated with feedlot finishing of cattle, sequesters carbon in pasture soils, and sustains the local rural economy.

They are also working with small ruminants - sheep and goats. They are researching ways to control internal parasites of pastured sheep and goats, such as looking for forage or browse plants that are natural wormers. Currently, the pharmaceutical wormers are ineffective due to prolonged use causing the parasites to become resistant to them. Kim Cassida reported on this work at our 2011 Annual Meeting.

They are experimenting with hardwood silvopastures. Here trees are thinned out enough to produce better commercial logs and allow more sunlight to reach the soil so that grass can be grown for pasture underneath the tree canopy. This is a win-win situation providing commercial timber and better pastures since the partial shade provided by the trees moderates the air and soil temperatures. A better grass growing environment results, increasing livestock forage production. This produces two sources of income derived from the same hilly acres while protecting soil and water resources. Jim Neel will be speaking on this work at our 2012 Annual Meeting provided the research unit is still up and running.



Sheep grazing lush spring forage growth in one of AFSRC's silvopasture research paddocks. Note dandelion is a forage to that ewe on right!

Check out their website for more about them:

http://ars.usda.gov/main/site_main.htm?modecode=19-32-00-00

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Winter Green-Up Grass-Fed Beef Conference, January 27 & 28, 2012

Excerpted from the June 2011 NY GLCI Grazette

The Winter Green-up is said to be turning into one of the preeminent regional grazing conferences for user friendly content and great food. Where else can you find a chef given a standing ovation for his preparation of foods entirely sourced from local grass-fed beef, pastured pork, pastured poultry and grazing dairy producers?

The 4th Annual Winter Green-up is currently being planned. They have all their speakers lined up. Greg Judy, mob grazing advocate and Missouri farmer, will come to discuss multi-species mob grazing. Kathy Voth, featured speaker at the Northeast Pasture Consortium Annual Meeting and Vermont Grazing Conference in 2010, will share her training techniques to get cattle, sheep, and goats to eat all those "weeds" in our pastures, and thrive doing so. So, if you missed her at those 2010 venues or do not remember all the details, here is another chance to learn how to get rid of weeds by convincing cows that weeds really are tasty forages. Ulf Kintzel from White Clover Farm in the Finger Lakes Region of NY will speak about his experience as a grazer and breeder of Dorper sheep and marketer of high quality grass-fed lamb and mutton. Jim Ochtorski from Ontario CCE will give a presentation on developing a "brand" for your farm to better market your products. Jim's marketing presentations are top notch and are directly geared to farmers. Eddie Draper, Program Director for the University of Maryland's Wye Angus herd and farm in Queenstown, MD, will discuss the origin and history of that herd of cattle. This is one of the few long-time closed herds of cattle in the United States. It also has been identified independently by Dr. Allen Williams among others as a reliable source of "grass-finishing" genetics. With that in mind, Eddie Draper will discuss the

breeding program, some of the current research being conducted by University of Maryland meat and forage scientists, and the wide-ranging work they do there from feedlot trials to forage trials.

Plan on staying after the NEPC Annual Meeting to attend the 4th Annual Winter Green-up at the Century House, Latham, NY on the last weekend of January, 2012. For more information, contact Lisa Cox or Tom Gallagher at lkc29@cornell.edu or tjg3@cornell.edu. Book your spot early, this event does sell out.

Northeastern Silvopasture Conference, November 7 & 8, 2011, Watkins Glen

The first northeast US silvopasture conference will be held on November 7 and 8, 2011 at the Harbor Hotel in Watkins Glen, NY. This Conference is being produced by: USDA National Agroforestry Center, Natural Resources Conservation Service, US Forest Service, Penn State University Cooperative Extension, Finger Lakes Sustainable Farming Center, The Cornell Small Farms Program, NY Grazing Land Conservation Initiative - Natural Resources Conservation Service, and the Upper Susquehanna Coalition.

This two-day conference is devoted to sustainable woodland grazing in the Northeastern US. It will demonstrate how silvopasturing can improve the health, performance and viability of livestock and forestry systems. Participants will include: conservation professionals and foresters, Extension and university faculty, students, graziers, woodland owners, Ag support agency personnel, and rural community development advocates.

The conference registration fee is \$89/person. This includes breakfast, lunch and refreshments during the conference. Space is limited, so please register early at: <http://nesilvopasture.eventbrite.com> or call Schuyler CCE at 607-535-7161 for alter-

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native registration.

Rooms are available at the Harbor Hotel for as low as \$77/night for government employees, and \$139 for non-government participants. Hotel website is: www.watkinsglenharborhotel.com

The Conference agenda is below:

Monday, November 7

8:00 a.m.—Registration opens Continental Breakfast (provided)

10:00 a.m.

Welcome, Goals for the Conference

Jim Ochterski

CCE of Ontario County

10:15 a.m.

An Overview of Silvopasturing

Brett Chedzoy

CCE of Schuyler County

10:45 a.m.

Silvopasture Case Studies and Research for the Northeast:

- **Restoration and Revitalization of an Appalachian Farm**

John Hopkins

Forks Farm - Bloomsburg, PA

- **Applied Silvopasture Research at USDA ARS in Beaver, WV**

Charlie Feldhake

USDA ARS

12:00 noon

Opportunities and Challenges to the Adoption and Expansion of Silvopasturing in the Northeast

Michael Jacobson

Penn State Cooperative Extension

12:30 p.m.

Buffet Lunch (provided)

1:30 to 5:30 p.m. (Break ~ 3:30)

“Silvopasture Design, Implementation and Impacts”

- **The Design of Tree-Forage-Livestock Systems; Integration of Watering and Fencing Infrastructure in Silvopastures**
- **Potential Pitfalls and How to Avoid Them**
- **Development of Silvopasture Grazing Systems - Introducing Trees to Pastures and Pastures to Forests**
- **The Benefits of Silvopastures for Water Quality Protection**
- **The Economics of Silvopasturing - Development Expenses and Projecting Incomes**

Presented by Dusty Walter, Gene Garrett and Larry Godsey - University of Missouri Center for Agroforestry

Tuesday, November 8

7:00-8:00 a.m.—Buffet Breakfast (provided)

“Joining Forces and Moving Forward - A Vision to Expand Silvopasturing in the Northeast”

8:00 a.m.

What Every Woodland Manager Needs to Know about Grazing

Dave Roberts

NY NRCS Grazing Specialist

8:45 a.m.

What Every Grazier Needs to Know About Forestry

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Peter Smallidge, NYS Extension Forester
9:30 a.m.

How Much Land is Suitable in the Northeast, and How to Evaluate It

Nancy Glazier
CCE NWNYS Team

root injury from treading damage or were girdled (debarked) by the livestock kept there.

10:00 a.m.—Break

10:30 a.m.

Overview of Current Resources and Assistance for Silvopastoralists *Doug Wallace* NRCS National Agroforester

11:15 a.m.

Summary of Key Considerations by Presenters, and Discussion

12:15 p.m.—Lunch (provided)

1:15 p.m.

***Depart for Field Tour at Angus Glen Farms,
LLC (2.4 miles from hotel)***

***The field tour will require
moderate walking—and please be
prepared for the weather.***

4:00 p.m.

Adjourn, and Keep Networking!

As you can see, silvopasture is becoming a new concept to the grazing scene in the Northeast. This is why we are introducing it at our annual meeting in January 2012. It is not kicking cows or heifers out into the woods to scrounge around for something to eat, as was typically done in the past. This ruined woodlots and some of the cattle. Generally, that type of woodland grazing was not worth the cost of surrounding the woodlot with a fence even if was strung from tree to tree (It often was). We still have nervous loggers that think they might hit imbedded wire in a tree. The tree canopy was too closed to allow grass growth of any consequence unless some trees died from

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The trailing news articles are from Don Comis, ARS Information Specialist, who is stationed in Beltsville, MD. He acts as a liaison between ARS and the Northeast Pasture Consortium. He sends me news articles that he feels will be of interest to the Consortium. This is the inaugural issue of the News Update to display some of Don's transmittals related to pastures. As we know from Kim Cassida's presentation, *Pasture Forages for Goats and Sheep*, at our 2011 Annual Meeting, the Beaver, WV, Appalachian Farming Systems Research Center has been looking at tannins in forages to see if gastro-intestinal worms can be killed by these tannins since drug wormers are losing their effectiveness due to increasing worm resistance to them.

The second article features research work being conducted at Plum Island on foot and mouth disease. Plum Island is off the northeastern coast of Long Island, NY. Few people are aware of this ARS research facility, and it resides in the Northeast Region.

Tannins' Surprising Benefits for Soils, Forests and Farms

By Don Comis



Sheep in a silvopasture at the Appalachian Farming Systems Research Center in Beaver, West Virginia. Photo by Susan Boyer.

The tannins that help make good red wine and bright fall colors also may help make good soil and healthy livestock, according to U.S. Department of Agriculture (USDA) researchers.

Chemist Javier Gonzalez and soil scientist Jonathan Halvorson, both at the Agricultural Research Service (ARS) **Appalachian Farming Systems Research Center (AFSRC) in Beaver, WV.**, are leading a tannin research project that's now in its fourth year. Results from the studies by Gonzalez, Halvorson, and their colleagues indicate tannins are important components of agroecosystems that can also affect production and environmental quality. ARS is USDA's principal intramural scientific research agency.

The scientists will use their results to develop recommendations for using tannins to manage soils and silvopastures, where livestock graze in thinned forests.

Tannins and other phenolic compounds are common in many plants. These compounds, believed to enter soil from plant roots and decaying leaves, may also be part of "teas" formed as rain and snow-melt run down tree bark and drip off the leaves.

The work is being done jointly with **chemist Ann Hagerman's renowned tannin laboratory at Miami University in Oxford, Ohio.** The two labs are combining their capabilities to identify important features of tannins that determine soil interactions.

Results to-date show the rate and amount of binding to soil particles varied from one tannin to another. The scientists found that the binding quality of tannins can also be used to immobilize metals such as aluminum, lessening the metals' toxic effects on root growth. Tannin-related phenolics can also free up nutrients such as calcium



for crop use.

The scientists are learning more about how forest soil microbes metabolize tannins, leading to a better understanding of the varied ecological functions performed by tannins. The AFSRC scientists also are studying the nutritional and deworming potential of tannin-containing forages for goats.

USDA Scientists Discover How Foot-and-Mouth Disease Virus Begins Infection in Cattle

By Sandra Avant

WASHINGTON—U.S. Department of Agriculture (USDA) scientists have identified the primary site where the virus that causes foot-and-mouth disease (FMD) begins infection in cattle. This discovery could lead to development of new vaccines to control and potentially eradicate FMD, a highly contagious and sometimes fatal viral disease of cloven-hoofed animals that is considered the most economically devastating livestock disease in the world.



Hereford cattle on an all-weather pad at watering trough in a paddock. Photo by Keith Weller.

The discovery was made by scientists with the **Agricultural Research Service (ARS) Foreign Animal Disease Research Unit at the Plum**

Island Animal Disease Center at Orient Point, N.Y. ARS is USDA's principal intramural scientific research agency, and this research supports the USDA priority of promoting international food security.

Veterinary medical officer Jonathan Arzt, research leader Luis Rodriguez, and microbiologist Juan Pacheco found that after just six hours of exposure to the FMD virus through the cow's nasal passages, the virus selectively infects epithelial (outer membrane) cells in the nasopharynx, a specific region of the back of the cow's throat.

"Because we have determined the actual route the FMD virus takes in infected cattle, we can now begin to target the virus-host interaction in an effort to develop better vaccines and biotherapeutic countermeasures against the disease," Arzt said.

Although the United States has not had an FMD outbreak since 1929, the disease is still considered a serious threat. Epidemics in other countries have resulted in the slaughter of millions of infected and uninfected animals to prevent the virus from spreading. Outbreaks of this disease in previously FMD-free countries could cause billions of dollars in economic losses related to eradication efforts and trade bans.

Vaccines that offer temporary immunity for livestock have been developed, but there is no universal FMD vaccine against the disease. Because there are seven different types of FMD viruses and more than 60 subtypes, vaccines must be highly specific, matched to the type and subtype present in the area of an outbreak, to protect animals against developing clinical signs of disease. Blocking the initial site of infection may be the most effective way to achieve complete protection.

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The research was published in the November 2010 issue of Veterinary Pathology and featured on the cover of that issue.

The findings have allowed Arzt and his colleagues to answer some basic, yet long-standing mysteries regarding how the FMD virus first invades and propagates in susceptible cattle. The scientists now are conducting further research to answer questions about why the particular epithelial cells are susceptible, and how the initial infection site can be blocked.

"The answers to these questions will result in a new era of FMD prevention in which highly effective vaccines will provide rapid and long-lasting immunity to even the most virulent strains of FMD virus," Arzt said.

Check Out Our New Website

Click on: <http://www.grazingguide.net>. This is our new website. Sarah Goslee, Ecologist and part-time webmaster, with the Pasture Systems and Watershed Management Research Unit of ARS at University Park, PA has assumed the duties of Rick Kersbergen, UMaine Extension Specialist recently as the Northeast Pasture Consortium Grazing Guide webmaster. The new website is still under construction, but there is some very good information there already. For instance, this year I did a full proceedings of our annual meeting. By going to the website, you can download the session papers individually to refresh your memory of what was presented, or if you missed the annual meeting, you can read what people had to say about the various subjects we saw and heard about.

Please browse the site. Let us know what else you would like to see displayed at the NEPC Grazing Guide website.