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## Forage News [2009-03]

University of Kentucky Department of Plant and Soil Sciences

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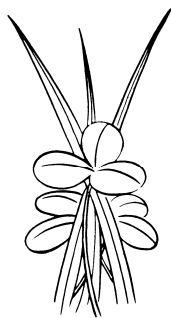
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# FORAGE NEWS

For more forage information, visit our UK Forage Extension Website at: <http://www.uky.edu/Ag/Forage>

## March 2009

*Garry D. Lacefield and S. Ray Smith, Extension Forage Specialists • Christi Forsythe, Secretary*

### 29<sup>TH</sup> KENTUCKY ALFALFA CONFERENCE

The 29<sup>th</sup> Kentucky Alfalfa Conference was held February 19 at the Cave City Convention Center. Approximately 150 from throughout Kentucky and nine other states heard leading alfalfa scientists, industry personnel, and producers discuss the latest developments in alfalfa production. The 30<sup>th</sup> Anniversary Kentucky Alfalfa Conference will be February 25, 2010 at the Cave City Convention Center.

### ALFALFA AWARD WINNERS

The 2009 Kentucky Alfalfa Awards were presented at the 29<sup>th</sup> Kentucky Alfalfa Conference. Recipients were:

Mr. John McCoy – Charles Schnitzler Producer Award  
Mr. Ken Carpenter – Warren Thompson Industry Award  
Dr. Ray Smith – Garry Lacefield Public Service Award

Congratulations John, Ken and Ray!

### ALFALFA HAY WINNERS

Congratulations to the following producers for winning Hay Awards at the 29<sup>th</sup> Kentucky Alfalfa Conference:

Alfalfa/Grass		Alfalfa	
<b>May 2008</b> Barry James	Brownsville	<b>May 2008</b> David Glover	Trenton
<b>June 2008</b> John Nowak	Pembroke	<b>June 2008</b> Glenn Cox	Fredonia
<b>July 2008</b> Chris Milam	Olmstead	<b>July 2008</b> Glenn Cox	Fredonia
<b>August 2008</b> Jeff Morris	Stanford	<b>August 2008</b> David Glover	Trenton
<b>September 2008</b> David Cassidy	Horse Cave	<b>September 2008</b> John McCoy	Bowling Green
<b>Best Overall Champion Alfalfa Hay 2008</b> Glenn Cox - Cox Farms, Inc., Fredonia, KY			

My thanks to the Kentucky Department of Agriculture Hay Testing Program for sampling, testing and compiling results.

### WEED FREE HAY AND STRAW CERTIFICATION PROGRAM

Kentucky Seed Improvement Association (KSIA), the seed certification agency of Kentucky, has recently been designated as the official agency to administer a Noxious Weed Seed Free Hay and Straw Program in the state by the Kentucky Department of Agriculture.

Use of certified weed free hay and straw will assist in limiting the spread of noxious weeds. KSIA's voluntary certification program is designed to assure that hay and straw sold with proper certification identification meets minimum standards designed to

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limit the spread of noxious weeds. Buyers are provided assurance that hay and straw certified through this program meets these minimum standards.

The program is in place beginning spring, 2009. Questions and comments can be directed to Kenny Hunter, Manager KSIA/KFSP, 3250 Iron Works Pike, Lexington KY 40511; phone: (859) 281-1029; fax: (859) 253-3119; email: kyseed1@gmail.com or [khunter.ksia@gmail.com](mailto:khunter.ksia@gmail.com).

### W.D. HOARD: THE FATHER OF ALFALFA CULTURE

William Dempster Hoard, a former governor of Wisconsin, purchased a dairy farm near Ft. Atkinson, WI, in 1899 primarily to prove to University researchers that alfalfa was a valuable and profitable feed for dairy cattle. A substantial part of W.D. Hoard's career was devoted to the education of dairy farmers on how to successfully utilize alfalfa in their dairy operations. W.D. once said, "Dairy farmers certainly work hard enough, but they are using 15¢ of knowledge to do \$1,000 worth of business."

- Use rich land.
- Make a fine seedbed 8" deep.
- Choose a field with the water table 15-20' below the surface (alfalfa hates "wet feet" and alfalfa roots will easily reach this depth).
- Apply lime and potash fertilizer (alfalfa flourishes where lime dust falls from nearby roads).
- Seed at 30 lbs. per acre.
- Harvest the grain nurse crop for hay when it heads out – no later!
- Never let a hoof on the field. Grazing will bruise the alfalfa crowns.
- Take first cutting about May 25 and other cuttings every 4-6 weeks.
- Curing hay is a "hard row to hoe". Hay cocks should be covered with canvas whenever possible.
- Rest alfalfa in the Fall if you want the crop to work for you next year.

(SOURCE: W.D. Hoard's Rules for Growing Alfalfa (circa 1902) in *The HAYMAKER*, Winter 2009)

### NEWLY REVISED FACT SHEET NOW AVAILABLE

The University of Kentucky Plant Pathology Department has recently revised Fact Sheet #PPFS-AG-F-04 "Emergency" Inoculation for Poorly Nodulated Legumes. For your convenience, we have put a link to this publication on our Forage Extension website at: <http://www.uky.edu/Ag/Forage/ForagePublications.htm>

## BENEFITS OF LEGUMES

Reducing pasture expenses can help your bottom line. But don't try to starve a profit from pastures or livestock. Sometimes you need to invest. This spring, invest in legumes. More in a moment.

Spring-like weather in February should get you looking forward to next growing season. I'm sure one thing you won't look forward to, though, is paying for nitrogen fertilizer on your pastures.

Avoid this expense by adding legumes to your grazinglands. Five years of grazing research in eastern Nebraska showed that brome/legume pastures produced almost four-tenths of a pound higher average daily gain on yearlings than did straight brome pastures fertilized with 50 pounds of nitrogen.

That may not sound like a lot to you, but that much faster gain for the full season produced an extra fifty-one pounds of beef per acre. With no nitrogen fertilizer. Adding the value of heavier yearlings plus reduced fertilizer expenses resulted in more than an extra fifty dollars per acre profit. That's fifty dollars – per acre!

Similar research was conducted with warm-season grasses with nearly the same results.

February and March are good months to start adding legumes. Red clover is the easiest one to establish because seed can be broadcast on pastures even if they are covered with several inches of snow. As snow melts and temperatures fluctuate in early spring, the seeds will get worked into the soil, germinate, and start to grow. With a little attention to controlling competition from the existing grass, new red clover plants can start increasing your pasture production by summer.

Don't become trapped by the never ending cost of nitrogen fertilizer. Use legumes to reduce costs and increase production. (SOURCE: Bruce Anderson, Extension Forage Specialist, University of Nebraska)

## BAY MINETTE COMPANY'S RENEWABLE DIESEL WOWS EXPERT

Cello Energy sprouted quietly here as a truly homegrown industry. But it won't stay that way, said David Bransby, professor of energy crops and bio-energy at Auburn University.

The company has been in startup for about two months, making renewable diesel fuel from tires, hay, straw, wood chips and switchgrass. Full production should begin in March, with a goal of 20 million gallons a year, produced for well under a \$1 gallon, company officials said.

Created, built and financed by the father-and-son team of Jack and Allen Boykin of Daphne, the company will "shock the world," Bransby said.

I've been involved in this industry for 20 years and watched it evolve slowly, and there is no other technology that even comes close to what they have," Bransby said.

"It takes a long time to fully appreciate what this technology is going to mean to the U.S. and world — it's revolutionary," he added.

Allen Boykin said that the recipe is the main difference between Cello Energy's fuel and biodiesel or ethanol. Biodiesel generally uses vegetable oil, while ethanol generally requires corn.

The Boykins' fuel calls for cellulose, the compound in the cell walls of most plants.

"We don't know of anyone else taking cellulose and turning it into diesel fuel," said Allen Boykin. "We don't turn food into fuel."

Trash from a nearby city, waste tires from local shops and crops grown within 50 miles will provide the cellulose.

Bransby agreed that no other company in the U.S. is making renewable diesel of this quality and quantity. Bransby is working under a \$195,000 state grant to determine how to use Bay Minette's household and other waste at Cello Energy.

Jack Boykin said that he began conceiving of such a fuel in 1993 when, returning from a chemical engineering job in China, he was reading how oil might one day hit \$100 a barrel.

"I thought, 'That will break our nation,'" said Jack Boykin.

Fast forward 16 years to the plant constructed between March and November last year.

"We can take 15 to 20 pounds of raw material and turn it into a gallon of diesel. In 22 minutes we can do what it takes 15 to 20

million years to do in nature," said Allen Boykin, a graduate of Daphne's Bayside Academy and Huntingdon College.

Years of brainstorming, designing, testing, trial and error, have yielded a high-tech operation of grinders, pumps, "digesters" and storage tanks, the Boykins explained. All necessary state and federal permits are being obtained, they said.

The \$25 million operation will employ 35 people at full capacity, with about half on board now, according to the company.

Asked why the technology hasn't been tried by others, including major corporations, Jack Boykin said he believes that they just started earlier in piecing together both the necessary science and the mechanical engineering.

Jack focused on chemistry, Allen the facility. Now, they have a model that could be replicated elsewhere, they said.

"I could build one of these in the parking lot of Wal-Mart, just as quickly as we could get the equipment ordered," Allen Boykin said.

Bransby will lead a symposium Tuesday at the Auburn University Gulf Coast Research and Extension Center in Fairhope to encourage local farmers to grow energy crops.

"It's mind-boggling to think what they have there, and that they did it in one year," Bransby said. (SOURCE: Press-Register, February 14, 2009)

## RYEGRASS AIN'T RYEGRASS

Perennial ryegrass, annual ryegrass, Italian ryegrass, and even cereal rye. It's enough to confuse anyone. In a moment I will try to sort out their differences and where they fit your forage program.

Interest in ryegrass has increased in our area in recent years. But there is much confusion because there are many different types of ryegrass, so let's see if I can help reduce this confusion.

Let's begin with perennial ryegrass. This may be the highest quality perennial grass in the world and is used widely in many mild climates. Perennial ryegrass does not like hot, dry summers or dry winters so it does not survive well in our climate. I suggest using it only in mixtures for short-term use with animals that respond greatly to high quality, like dairy cows or stockers.

Most of the confusion comes from annual ryegrass because there are two types. The more traditional annual ryegrass is the Westerwold type. Westerwold annual ryegrass grows very rapidly after spring planting but goes to seed in early summer. If grazed or clipped it usually regrows, although slowly, and forms seed heads again. It will not survive winter. As a result, Westerwold is used best as an emergency forage.

The other type is called Italian ryegrass. The best ones act like biennials – they don't form seed during the year of planting. Instead, they go to seed the next spring and often die. After planting, they start growing fast in about June and continue to grow rapidly up until frost. And all the growth is high quality leaves. Winter survival is not very dependable and varies from year-to-year and by variety. Extra confusion occurs because botanically, Westerwold also can be called Italian ryegrass. So be very specific when buying these ryegrasses. If you want one that acts like a biennial, be sure to ask for it that way.

With the right type, ryegrass can provide outstanding feed. (SOURCE: Bruce Anderson, Extension Forage Specialist, University of Nebraska)

## UPCOMING EVENTS

- JUN 21-24 American Forage & Grassland Council, Grand Rapids, MI
- JUN 27 UK Equine Field Day, UK Maine Chance/Spindletop Research Farm, Lexington
- JUL 23 UK All Commodity Field Day, Research & Education Center, Princeton
- SEP 17-19 National Hay Association Annual Conference, Deadwood, SD



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