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Forage News [2001-08]

University of Kentucky Department of Plant and Soil Sciences

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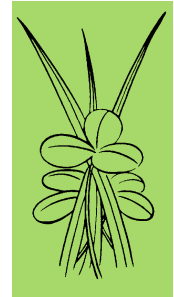
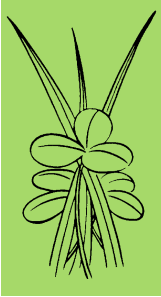
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FORAGE NEWS



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-

August 2001

Garry D. Lacefield and Jimmy C. Henning, Extension Forage Specialists • Christi Forsythe, Secretary

KENTUCKY GRAZING SCHOOL

The Kentucky Grazing School will offer a shorter program at a lower cost. The shorter program will only require participants to spend one night away from home if they do not live in driving distance of Princeton. The School organizers have "streamlined" the program to be more efficient in time management that will offer the same information and quality program while reducing the length by one-half day. Cost for the two-day school has been reduced to \$100.00 and includes all meals, breaks and refreshments, a Grazing School notebook, copy of Southern Forages and the Forage Crop Pocket Guide, along with many publications and handouts. The school will feature a combination of classroom and field activities which include fence and water construction, pasture assessment, weed identification, fencing demonstration, stocking rates and densities, and paddock design and layout. The school will be held October 16 and 17 at the University of Kentucky Research & Education Center in Princeton. To register or for more information, contact: Dr. Jimmy Henning, 859-257-3144, e-mail jhenning@ca.uky.edu or Ken Johnson, 270-487-6589, e-mail kjohnson@ky.nrcs.usda.gov.

COMPARATIVE ASSESSMENT OF AUTOTOXICITY RESEARCH AND MANAGEMENT RECOMMENDATIONS

Autotoxicity can cause establishment failure or poor growth of alfalfa (*Medicago sativa* L.) planted after alfalfa. A 1996 survey of agronomists in 41 states ranked autotoxicity second behind soil-borne diseases for importance in replanting alfalfa. Field

management strategies to reduce autotoxicity often include a rotation interval ranging from 2 wks to 2 yrs between successive plantings. Autotoxic effects may be more severe on sandy soils in the short term, but persist longer in heavier textured soils. Establishment and growth of new alfalfa was reduced within a 20-cm radius from old plants, thus making attempts at thickening declining stands unsuccessful. Seed-treatment fungicide did not improve success of interseeding alfalfa into old stands. Autotoxic effects are often considered only on establishment, but lingering sub-lethal effects that alter economics of production should be noted. In a review of 10 long-term experiments, average reduction in alfalfa plant density and yield was 18% and 22%, respectively. Young stands become autoconditioned such that plant density and yield are lower than controls. Autoconditioning may be defined as a change in plant morphology due to environmental or chemical factors during establishment that are retained at the population level. (SOURCE: John Jennings, Univ. of Arkansas, IN ASA/CSSA/SSSA Abstracts, November 2000)

FORAGE LEGUME INFORMATION ON THE WEB

Forage legumes have positive effects on production and profitability when a proper environment is provided and grazing or haying is. In spite of this, legumes are underutilized in pastures in most areas. One reason forage producers do not use legumes more is their lack of familiarity with these species. The World Wide Web is becoming an increasingly important means of transmitting information about a vast number of products and concepts, including agriculture. We developed a web

page for information about forage legumes. It is designed for forage producers, agricultural advisors, seed merchants, etc., and is intended to provide a brief exposure to many different forage legumes, including images of plants, plant parts, and fields. www.agr.okstate.edu/forage/legumes.htm is the URL for the web page. To facilitate use of this web site, forage legumes were divided into four major groups as follows, clovers, medics, warm-season annuals, other legumes. The clover group includes arrowleaf clover, ball clover, berseem clover, crimson clover, hop clover, persian clover, rabbitfoot clover, red clover, rose clover, subterranean clover, and white clover. The medic group includes black medic, bur medic (or burclover), button medic (or buttonclover) and rigid medic. Warm-season forage legumes group includes cowpeas, mungbean, peanut, and soybean. The other legumes group includes austrian fieldpea, birdsfoot trefoil, caleypea, cicer milkvetch, annual lespedeza, illinois bundle flower, sainfoin, sericea lespedeza, sweetclover and vetch. (SOURCE: John Caddel, IN AFGC and 37th North American Alfalfa Improvement Conference Proceedings, July 2000)

VALUE-ADDED TRAITS OF ALFALFA

ABSTRACT: Value-added traits of alfalfa are needed to provide farmers new high value profitable products. Processing alfalfa to obtain value added products includes three different fractionation methods: 1) wet fractionation; separation into juice fraction and a fiber fraction, 2) dry fractionation; separation into leaves and stems, and 3) fractionation by passage of the whole herbage through the digestive systems of ruminant animals, leaving a high fiber residue. Phytase from transgenic alfalfa has been tested in poultry and swine rations. Chicks supplemented with phytase from transgenic alfalfa juice or leaf meal had growth equal to chicks fed phosphorus supplemented rations. The manure from these chicks supplemented with alfalfa phytase contained less than half the phosphorus levels of manure from chicks fed inorganic phosphorus supplements. The economic value of phytase alfalfa product could generate \$750 to \$1500/A income from alfalfa grown in the Midwest. Alfalfa hay can be fractionated to yield stems and leaf meal. Alfalfa leaf meal has been shown to be acceptable supplement to replace a portion of alfalfa hay and soybean meal in diets of lactating dairy cattle, replace protein supplement in beef cow diets, finishing steer diets and diets of growing turkeys. Current energy costs in this country limit the use of alfalfa stems to generate electricity from gasification. The fiber portion of alfalfa can produce lactic acid and ethanol. The fiber from alfalfa manure has yielded press board and water filters capable of removing heavy metals from

contaminated water. (SOURCE: Neal P. Martin and Richard G. Koegel IN Proc. 29th National Alfalfa Symposium, Dec. 11-12, 2000)

KENTUCKY GRAZING CONFERENCE

With the success of the Grazing Conference held this past year in Bowling Green, the organizing committee has put together an outstanding program for November 29 in Lexington. The Conference will feature leading speakers from throughout Kentucky covering practical aspects of grazing. In addition, we are fortunate to have Mr. R. L. Dalrymple from Oklahoma, who is one of the leading grazing authorities in the USA, along with Dr. Gary Bates, Extension Forage Specialist from the University of Tennessee as our keynote speakers.

The conference will be held at the Fayette County Extension Office with registration beginning at 8:00 a.m. The registration fee will be a nominal \$15.00 and will cover refreshments, meal, proceedings and a number of grazing-related publications. Commercial and educational exhibits will be set up and staffed covering services and supplies related to grazing.

Additional information can be obtained by contacting Dr. Jimmy Henning, 859-257-3144, e-mail jhenning@ca.uky.edu, Dr. Garry Lacefield, 270-365-7541 X202, e-mail glacefie@ca.uky.edu or Ms. Christi Forsythe, 270-365-7541 X221, e-mail cforsyth@ca.uky.edu

This conference will be the Kentucky Forage and Grassland Council's Winter Forage Conference. A short business meeting will be held at lunch, highlighted by our annual Awards Program.

UPCOMING EVENTS

OCT 16-18	Grazing School, Princeton
NOV 29	Kentucky Grazing Conference
2002	
JAN 11	Forages at KCA, Bowling Green
FEB 21	XXII Kentucky Alfalfa Conference, Cave City

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