

The Forager

THE NORTH CAROLINA FORAGE AND GRASSLAND COUNCIL
IN COOPERATION WITH
THE GRAZING LANDS CONSERVATION INITIATIVE

FORAGE ID: INDIANGRASS (*SORGHASTRUM NUTANS*)

Indiangrass is a native warm season perennial grass found in most counties of NC. It has a bunch type growth habit and can grow up to 7 feet tall. Growth begins in the spring, later than switchgrass, and makes most of its growth between June and August but remains green until the first frost.

Distribution and Adaptation

- Best adapted to deep moist soils from heavy clay to deep sands
- Found on sites where little mowing or grazing are routinely practices
- Tolerates sites that are slightly acidic or alkaline

Use and Potential Problems

- Used primarily for grazing but may be harvested for hay
- Highly palatable with high nutritive value when harvested before seed set. Generally better quality than switchgrass and bermudagrass at similar stages of growth
- Due to its attractive seed head at maturity, the plant is used in gardens and flower arrangements.
- Persists best when defoliated infrequently and not below 6 inch stubble.
- Planting the “fluffy” seeds can be a challenge and seedling vigor is relatively weak.

(Indiangrass ID continued on page 2)



Fig. 4

A cow's only sweat glands are in its nose!

Preorder The Forager for your next event!

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UPCOMING EVENTS

- ⇒ JAN 29; COASTAL CAROLINA CATTLEMEN'S MTG, CORAPEAKE, NC
- ⇒ JAN 31-FEB 3; NAT'L CATTLEMEN'S BEEF ASSOCIATION MTG, NASHVILLE, TN
- ⇒ FEB 23-24; NC CATTLEMEN'S CONFERENCE, HICKORY, NC
- ⇒ MAR 9-10; APPALACHIAN GRAZING CONFERENCE, MORGANTOWN, WV, 304.293.6131
- ⇒ MAR 17; BEEF FIELD DAY, WAYNESVILLE, NC
- ⇒ MAR 27; WEED CONTROL FOR PIEDMONT PASTURES, SILER CITY, NC

FORAGES SERVING SOCIETY: GREASE APPLICATION TO NC GRASSLANDS

Grasslands provide feed for grazing animals, habitat for wildlife and serve as an essential tool for conservation. In conjunction with the soil, grasses have an incredible capacity for accepting, utilizing and filtering many liquid byproducts of society. Did you ever wonder what happens to the grease produced from the hamburger combo meal you just purchased?

Numerous cities throughout North Carolina have introduced a Fats, Oils, and Grease (FOG) program to minimize the costly effects of clogged sewer lines that would result if grease traps weren't installed in most restaurants. The Composting and Land Application Branch within the Department of Environment and Natural Resources' Division of Waste Management permits companies to pump and transport grease from restaurants.

Currently, permits are issued for over 2,000 acres of agricultural land for the disposal of domestic septage

and grease. Land application site operators are required to follow a nutrient management plan that allows for a 12 month application window, but requires the rates to follow the growth curve of crop (s) being grown. Most land application sites are permitted for 25,000 gallons of grease or 50,000 gallons of domestic septage per acre per year (an acre inch of water is 27,000 gals). All grease must be diluted at least 1:1 with domestic septage or water when land-applied over perennial vegetation. The grease is also lime-stabilized with hydrated lime to a pH of 12 for at least two hours for pathogen and vector control prior to land application.

The primary crops suitable for land application are pearl millet, small grain, tall fescue, and bermudagrass. These forages can be cut for hay or grazed 30 days after the last application. Annual soil samples are taken on all land application sites by the Division

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THE NC FORAGE & GRASSLAND COUNCIL NEEDS YOU!

The NC Forage & Grassland Council was organized more than 30 years ago, but for the last several years, support and commitment have waned; we need your energy to bring it back. There has always been a role for the organization to play, but few people realized the need to keep things going. The major activities that have continued are the hay show at the state fair, a meeting at the cattlemen's conference, and the Environmental Stewardship award; in 2006 four Newsletters were developed and made available at www.forage.ncsu.edu. If you utilize or benefit directly or indirectly from NC's pastures and grasslands, then you have a vested interest in supporting responsible stewardship of this valuable resource. Joining a network of like-minded individuals can enhance your own management or share your wealth of knowledge with others.

What can the NCFGC do for me?

Some past examples of the NCFGC's support of education and training were the NC Grazing Schools, publication of The Forager, organization of the Hay Show at the NC State Fair, and sponsorship of field day events. The council has the potential and charge to address policy issues within the agriculture sector. Example opportunities that currently exist include input on environmental regula-

tions, defining of USDA standards for "organic" meat and milk production, check off funds, conservation policy issues, educational and training certification programs. Members of the NCFGC have the opportunity to host events on their farms and generate publicity or solicit assistance.

Key ways you can help... NOW!

Send your mailing address via email or postal mail to The Forager (see back cover of this issue). You will receive a membership brochure.

Plan to attend the "Resurrection" meeting of the Council on February 23 at 2 PM at the Cattlemen's Conference at the Hickory Metro Convention Center, Hickory, NC. We plan to elect new board members and officers and talk about activities for 2007.

If you are interested serving as a board member or officer or committee member please reply to Forager@cropsci.ncsu.edu or 919 515 2390 with your name, address and expression of interest.

By Laws and the Membership Brochure for NCFGC may be viewed or downloaded from www.forage.ncsu.edu by searching **NCFGC**.



QUESTIONS FROM THE FIELD

Q: What is the best tactic for controlling annual bluegrass in bermuda and fescue? I have visited several farms over the last two weeks that have a medium to high infestation. It appears to be decreasing the amount of stand vigor in the bermuda.

A: Annual bluegrass germinates in the fall and goes through its life cycle early in the spring. It comes into pastures when the grazing or fertilizer management is not favorable for the target crop. As a general rule, it invades pastures where there is lack of vigor and competition from the desired plants. On dormant bermuda fields, annual bluegrass may be grazed prior to bermuda green-up or it could be controlled using several herbicides before the bermuda greens up. If it is in fescue it's usually in thin stands that have been closely grazed, compacted, or improperly fertilized over the previous years. There are no labeled herbicides to control annual bluegrass in fescue pastures. Fertilizing according to soil test reports and using the proper start and stop grazing or mowing heights for the target crops will generally minimize the amount of annual bluegrass in a stand.

Q: What forage crops can be planted this spring with reasonable expectation of success?

A: It is difficult to say for sure what will succeed because many things (amount of existing residue, soil moisture, soil temperature, fertility, animal traffic, seeding rates etc) affect the degree of success but the following should be considered: overseed white and red clover anytime before the existing grass greens up; the earlier the better. For example, spread seed before end of February. Cool season grasses (fescue, orchardgrass, bluegrass) planted in the spring generally do not establish as well as when planted in the autumn,

INDIANGRASS ID CONT'D

Fig. 1



Fig. 2

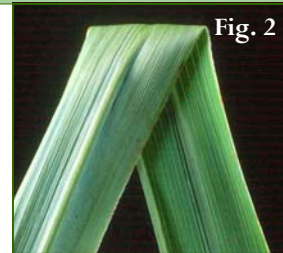


Fig. 3

Identification Characteristics

Leaf sheath and leaf blade: Vernation: rolled in bud-shoot (Fig 1); **Leaf sheath:** generally shorter than internodes **Leaf blade:** 10 to 24 inches long, flat, tapered to a narrow base where it joins the sheath, sometimes hairy, light green (Fig. 2); **Collar:** broad; **Auricle:** absent; **Ligule:** membranous, claw-like, notched at tip (Fig 3). **Stolon/rhizome/roots:** no stolons; short rhizomes; fibrous roots;

Inflorescence: long, dense, golden panicle (Fig 4); 4-8 inches long, spikelets paired hairy (fuzzy)

but if one is planting then do it early (February-March). Perennial native grass seeds (switchgrass, bluestem, indiangrass, gamagrass) have high dormancy therefore they may be planted in late winter also, however, if the dormancy is low then these seeds may be planted in April-June. All late winter and spring plantings will be stressed with competition from summer weeds, therefore planting early is usually the best option.

If you would like to send a question for this section, please email your question to forager@cropsci.ncsu.edu. Names will not be used

GREASE APPLICATION CONT'D

Spreading a load of grease and septage on a bermudagrass field in Martin County.



of Waste Management. For additional information, contact Michael Scott, Composting and Land Application Branch, at 919-508-8515 or www.wastenotnc.org



Martin County Land Application Site:

There are approximately 2,700 acres permitted for the land application of domestic septage, grease, and portable toilet waste.

YOUR INPUT ON THE 2007 FARM BILL IS NEEDED!

The NC Agricultural Development Forum will be held at the State Fairgrounds on **Feb 1, 2007**. The NC Forage Council will have the opportunity present questions/comments relative to the components of next USDA Farm Bill. Several national agricultural leaders and congressional staff will be on the program, including Congressman Charlie Stenholm; Bob Stallman, Pres., American Farm Bureau Federation; William Steel, National Grange, and others.

We are inviting you to submit questions through the Forage council so that we might organize and forward to the appropriate coordinator. Questions should focus on 1) Commodity programs, research, livestock, poultry, dairy, and specialty crops; 2) Conservation & Farmland Protection Programs; 3) Bio-Mass Energy, Risk Management & Agricultural Financing.

If you would like to submit questions for these panels, please send them by **Tue. Jan 23** to Jim Green; Fax 919 515 5855 or Email: jim_green@ncsu.edu and he will forward to the organizers.

RESEARCH HIGHLIGHTS: FESCUE GRAZING WITH MEAT GOATS

The third year of a study by Dr. Jean Marie Luginbuhl at the Meat Goat and Forage Educational Unit on Trenton Rd was recently completed examining the performance of nursing meat goats grazing Kentucky 31 (endophyte infected), Jessup (endophyte free) and Jessup Novel (MaxQ) tall fescue varieties during spring. Goats had free-choice access to water and were fed a mineral mix three times a week.

Lactating crossbred (3/4 +) Boer does either maintained (2005) or lost some weight (2004 and 2006) while control-grazed on 96% endophyte-infected Kentucky 31 fescue. Conversely, lactating does control-grazed on Jessup non-infected or MaxQ fescue gained or maintained their weight.

In 2004, kids on the endophyte-infected Kentucky 31 fescue plots gained less weight compared to the kids on the endophyte-free Jessup and the MaxQ fescue plots. The same trend was noticed in 2005 and 2006. Kid gains on Jessup- and MaxQ were similar, although there was a slight trend in favor of MaxQ. Nursing weight gains were lower in 2004 because does had kidded two weeks earlier on average than in subsequent years and grazing had started later (2004: 16 April; 2005: 30 March; 2006: 4 April).



Forage protein levels averaged 19.3% in 2004 and 23.6% in 2005.

Blood samples taken from nursing does for the determination of plasma prolactin have not yet been analyzed. Low plasma prolactin levels are associated with poor conception rates.

By the end of the first spring grazing season, goats had eaten only 26% of the endophyte-infected Kentucky 31 seedheads whereas 97% of the endophyte-free Jessup and 99% of the MaxQ tall fescue seedheads had been consumed.

Although no visual health problems were detected during this three-year study, does grazing the Kentucky 31 endophyte-infected fescue were not able to maintain their body condition in 2004 and 2006 while nursing kids. Conversely, does grazing the non-infected fescue either gained weight (2004 and 2005) or maintained their body weight (2006). Nursing kids performed well while fed only on these three fescue varieties under controlled, rotational grazing management.

Future research will examine the performance of nursing does and their kids grazing these same fescue varieties when incorporating white clover into the Kentucky 31 endophyte-infected pasture.



Did You Know?

A female goat (called a doe) usually has 2 kids a year. Most births occur in the spring after a 5 month gestation period. A male goat is called a buck, and a neutered male is called a wether. Baby goats are referred to as kids. Also, goats have only two teats (cows have 4). Goats don't have any upper front teeth! Both male and female goats can have beards!



THE FORAGER

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If you would like to receive **The Forager** via email or postal mail, submit a question or upcoming event, or let us know how much you like the Newsletter contact us at

forager@cropsci.ncsu.edu

N.C. Forage & Grassland Council Membership Form

Name _____ Name of Operation _____
Address _____ City _____ State _____ Zip _____
Phone _____ Occupation: Farmer ___ Industry ___ Agency ___ Other _____

- _____ **Individual** — \$25.00 (open to producers, professional agricultural and industry personnel, etc.)
- _____ **Individual** — \$75.00 (membership for 3 years)
- _____ **Associate** — \$100.00 (open to farm supply dealers, formulators, distributors)
- _____ **Supporting** — \$300.00 (open to basic suppliers of chemicals, equipment, plant food, seed, etc.)

Make check payable to: N.C. Forage and Grassland Council
Mail to: 2228 N. Main St., Fuquay-Varina, NC 27526

* You must be a member of the NCFGC to receive a **printed** copy of The Forager in your mailbox

CONGRATULATIONS TO THE 2006 MASTER HAY MAKERS AT THE NC STATE FAIR !!! (BLUE RIBBON WINNERS)



Name and County	Crop Category	Visual Score (0-100)	Crude Protein (%)	TDN (%)
Joe Poplin, Stanly Co.	Alfalfa	80	22	65
Phyllis Greene, Columbus Co.	Bermudagrass	84	13	59
Russ Hanes, Ashe Co.	Fescue	91	14	67
David Walker, Orange Co.	Orchardgrass	89	18	71
Joe Poplin, Stanly Co.	Grass-Legume Mix	83	18	63
Leonard Farm, Franklin Co.	Other Warm Season Grass (Millet)	64	9	57
Dale Wineberg, Ashe Co.	Other Cool Season Grass (Mixed)	79	14	64
Edward Moore, Craven Co.	Other Legumes	92	14	59