



March 2008

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Acreage Living is published monthly. Please share it with your acreage neighbors. Call your local ISU Extension Office for more information or contact an ISU Extension staff member listed below to suggest topics for future articles.

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Welcome to Acreage Living!

By Gerald A. Miller, Associate Dean, College of Agriculture and Life Sciences, Director, Ag & Natural Resources Extension

Welcome to Acreage Living! For some of you, this is a welcome back to a newsletter you've seen before. To others, this may be your first look at Acreage Living. Either way, we are glad to have this opportunity to bring you news and information about living at a rural residence.

Our purpose in offering Acreage Living is to help you manage your country home and land and to enhance your rural living experience. Rural residents face some unique issues, and we want to provide you answers and information from Iowa State University Extension and other land grant universities across the nation. Each month Iowa State University faculty and staff and other authors will share brief articles on a variety of topics related to home maintenance, water and wastewater, safety and emergency preparedness, grounds management, natural resources, machinery, business enterprises, animals, public affairs, and family life. Authors will provide basic information and will connect you to further resources or expert assistance.

Our web site will connect you to the current issue along with six years of back issues packed with useful articles. Access to the online newsletter is offered at no charge and we hope you will share Acreage Living with friends and family. If you want to be notified by email when the latest issue is posted, please send an email message to Shawn Shouse at sshouse@iastate.edu requesting email notification.

Our editors and authors are always open to your suggestions for topics, so let us know what questions you have about acreage living. Thank you for joining us!

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the U.S. Department of Agriculture, Jack M. Payne, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.



Pasture Management and Forage Production

(Part 1 of 3 Fertilizing Pasture)

By Stephen K. Barnhart, ISU Professor and Extension Forage Agronomist

Among the ways to boost pasture yields probably the most economical and practical is proper pasture fertilization management.

Acreage owners with pasture-based livestock come from a wide array of backgrounds. Whether long-time producers or 'new to the game,' using the correct terminology helps us communicate efficiently with ag suppliers, our various 'advisors,' veterinarians, and each other. Here are some basic pasture forage terms.

Grass pastures – grasses are the narrow-leaved plant species that we manage in lawns and pastures. Pastures with a high proportion of grass are considered to be 'grass-based,' or 'grass dominant.'

Mixed legume/grass pastures – legumes are the class of pasture plants that includes alfalfa and the clovers (as well as a few others). Legumes have some desirable traits in pasture production and management including high nutritional quality, often better summer production than grasses, and the ability to produce much of their own nitrogen (and share it with associated grasses). Legumes are frequently and incorrectly lumped in and collectively called 'grass.'

Cool-season and warm-season species – of the many forage

grasses and legumes that grow in the mid-west U.S., the majority are classified as 'cool-season,' meaning that they grow most efficiently and are most productive during the cooler growing months of spring and autumn. Many cool-season forage grasses have a distinct 'summer slump' in production, presenting a management challenge during the hotter summer months most years. There are also some 'warm-season' forage species that offer interesting complimentary management opportunities in pasture and livestock management.

Grass-based pastures respond well to nitrogen, particularly the first 40 to 50 lbs/A. Suggestions for Kentucky Bluegrass-dominant pastures: early spring, 60-80 lbs Nitrogen/Acre (N/A); late spring (optional) additional 30-40 lb N/A; and/or late-summer (optional) additional 30-40 lbs N/A. For tall, cool-season grasses-dominant pastures (such as orchardgrass, smooth brome grass or tall fescue): early spring, 80-120 lbs N/A; late spring (optional) additional 40-60 lbs N/A, and/or late summer (optional) additional 40-60 lbs N/A. Mixed legume-grass pastures: if less than 1/3 legume – treat as a grass pasture; if more than 1/3 legume – no nitrogen is recommended. To encourage more

legume presence, use modest early spring N and defer some of the season's total N to late-spring or late-summer.

For grass-based pastures, try to maintain soil pH (a measure of soil acidity) at 6.0 to 6.5 To encourage and maintain legumes, try to maintain a pH of 6.5-7.0. Yield responses to phosphorus (P; sometimes called phosphate) and potassium (K; sometimes called potash) are not dramatic or consistent.

Forage plants will respond to added phosphorus (P) and potassium (K) when applied to soils with 'low' or 'very low' soil P and K test levels. Soil test pastures to determine P, K, and pH correction needs. Ag lime is generally applied to neutralize or correct a low soil pH. Talk to your supplier or agronomist about recommended rates.

Quick points:

1. Grass-dominant pastures respond well to N fertilization
2. To encourage and maintain legumes, limit spring N rates and defer some N to late spring and or late summer
3. Maintain optimum soil pH, P, and K levels for the type of pasture
4. Consider trying to incorporate more legumes into the pasture. (seeding methods will be covered in a later article.)

Online resources:

Pm-869. Fertilizing Pastures <http://www.extension.iastate.edu/Publications/PM869.pdf>

Pm-1688. Nutrient and Lime Recommendations <http://www.extension.iastate.edu/Publications/PM1688.pdf>



Iowa's Changing Rural Population

By J. Gordon Arbuckle Jr., ISU Assistant Professor and Extension Sociologist; and Andrea Rich, Graduate Student, Department of Sociology

Not so long ago, the communities that dot Iowa's landscape consisted of farm families on nearly every 160 acres of land and bustling small towns full of businesses, many of which catered largely to farmers. In 1950, a majority of Iowans lived in rural areas, and the farm population made up nearly 60 percent of those rural residents. As farms have grown larger, the farm population has dropped significantly, from nearly 800,000 in 1950 to just over 170,000 today. The rural non-farm population, on the other hand, has grown substantially, nearly doubling since 1950 (from 580,000 to 970,000) and growing by 14 percent between 1990 and 2000. Today, the rural non-farm segment of the population makes up 85 percent of rural residents, and 33 percent of the state's population overall.¹

Growth in the rural non-farm population tends to be concentrated in counties with urban centers or within commuting distance of urban areas. For example, Harrison, Pottawattamie, and Mills counties, all considered part of the Omaha-Council Bluffs metropolitan area, experienced substantial increases in their rural non-farm population between 1990 and 2000. Moving further east, Cass, Montgomery,

and Shelby counties also experienced rural non-farm population growth, with Cass leading the group with a 22 percent increase. This trend is evident in counties surrounding all of Iowa's urban centers, as well as many counties beyond the urban fringe.

What is behind the expansion of the rural non-farm population? Much of the increase is related to the reduction in farm population as farm families transition out of farming, but a major component of that growth is attributable to people moving in, often from urban areas. Cass County's case is illustrative. Between 1995 and 2000, 1,916 people moved into the county. Over 30 percent of new residents moved from urbanized counties in Iowa, including Pottawattamie County (14 percent), Polk County (seven percent) and Woodbury County (four percent). Over 35 percent came from other states, both near (Nebraska, 12 percent) and distant (Florida, three percent).²

Substantial shifts in population can have both positive and negative impacts on local social and economic dynamics. For many people who relocate to rural places, quality of life considerations figure prominently in their decisions to move.

However, the very factors that contribute to that quality of life – close-knit communities, good schools, low crime rates, natural beauty, relatively low land and housing costs – can be threatened by population growth. In addition, people who are new to rural areas must adjust to realities such as self-provision of water and sewer services, the presence of large numbers of livestock (and their related odors), and unfamiliar social expectations. Where expectations and realities do not match up, conflict can occur.

Even though population changes can have downsides, there can be many positive effects as well. Economic benefits can include increased property tax revenue and higher home values. Newcomers may also bring diverse skills, fresh ideas, and extended social networks that can help to invigorate receiving communities. New businesses, tax revenues, and community projects associated with new residents can increase social and economic vitality in areas that have long suffered the negative effects of population loss. The face of rural communities will continue to change, but this new crop of rural residents may be one key to the long-term resilience of rural communities.

¹ Source: Unless otherwise indicated, all data from the Iowa State Office of Social and Economic Trend Analysis, <http://www.seta.iastate.edu>

² Source: U.S. Bureau of the Census, Decennial Census, Census 2000 County-to-County Migration Flow, <http://www.census.gov/population/www/cen2000/ctytoctyflow.html>. Prepared by: State Library of Iowa, State Data

Discarded Evergreen Trees and Storm Produced Tree Branches Can Be Beneficial to Acreage Living Rather Than a Burden

By Jesse Randall, ISU Assistant Professor and Extension Forester, and Rich Clayton, Extension Fisheries and Ponds Specialist

Winters in Iowa bring a mix of weather conditions from snow to sleet to inches of ice. Combine that wintery mix with the north-west wind that Iowa is also known for and even the strongest of trees can succumb to the extra weight of snow and ice. This often results in large amounts of downed branches that are ice coated and viewed as a burden rather than an opportunity.

Instead of dragging those branches to the bonfire pile, place them in a location that is out of the way and let nature take its course. A loosely piled brush pile will provide years of habitat for wildlife, a home for song and game birds and shade and protection for amphibians, and a host of other reptiles and small mammals. This pile can be added to over the years or be allowed to naturally decay and return to the soil.

In Iowa it is estimated that there are more than 100,000 farm/

acreage ponds. Many of these man-made ponds can benefit from additional fish habitat structure. Following the Christmas season when most people are looking to the curb to dispose of their Christmas trees, the acreage owner has a unique opportunity to potentially improve their aquatic ecosystem. This is done because fish use structure for protection from other predatory fish and from the midday sun.

Using a length of nylon rope long enough to suspend the tree about 6-10 feet below the surface of the water, tie a cinder block to the base of the tree and when there is a sufficient thickness of ice, place both the block and tree in an area of the pond where structure is needed. Care should be taken when placing the sunken trees as you do not want to place them in areas frequented by swimmers or boaters (e.g., around docks, etc.). Over successive years your pond structure will improve and the

fishing should as well. One caution to remember is that as these trees break down (decompose) in the water, they are adding additional nutrients to the pond.

A final option would be to chip or mulch these branches and trees. There are relatively inexpensive stand-alone or small tractor mounted PTO-powered wood chippers on the market that will turn branches and used Christmas trees into wood chips and mulch. These chips and mulch can be used on decorative flower beds around the home to reduce soil moisture loss and control weeds. Chips and mulch can be placed around both newly planted and established trees to reduce mower damage, increase soil moisture, and decrease summer soil temperatures.



Online resources:

SUL 12. Using Mulches in Managed Landscapes <http://www.extension.iastate.edu/Publications/SUL12.pdf>

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