Farm Views

Graze Conservatively Following Drought Year

When spring finally arrives, all pastures will green up like normal. But don't let that first growth fool you. Below ground, many plants still are suffering from the effects of last year's drought.

During normal years, over half of the roots in grass plants die and need to be replaced. Drought reduces root growth, thus lowering the plant's ability to replace dead roots. Grazing drought-stressed plants, especially heavy defoliation, simply worsens the situation.

Deep, healthy roots are needed to absorb nutrients and moisture from soil and to initiate new growth after grazing. If you grazed drought-stressed pastures heavily last year, early removal of spring growth this year could leave you with plants with little energy for regrowth or roots too short to reach deep moisture. That means lower yield, reduced carrying capacity and extra stress again this year.

So what should you do? Begin with realistic stocking rates. Even with average subsoil moisture and growing season rainfall, reduce stocking rates about 10 percent from normal to account for weakened root systems. Also delay turn out a couple weeks so plants develop enough leaf area to begin repairing injured roots. And when you do graze, always have at least a couple of healthy leaves remaining to harvest sunlight to energize regrowth.

To make up for this forage production shortfall, graze winter wheat or alfalfa. Plant oats or summer annual grasses for grazing. Or cross fence pastures to encourage better grazing distribution.

Don't risk long-term pasture injury for short-term feed gains. Manage grazing to help pastures recover from last year's stress.

Source: Bruce Anderson, Extension Forage Specialist, UNL. (TD)

Nebraska Pioneer Farm Awards Deadline May 1

The Knights of Ak-Sar-Ben Foundation and the Nebraska Association of Fair Managers welcome nominations for the 48th Annual Nebraska Pioneer Farm Awards. The program honors farm families in Nebraska whose land has been owned by members of the same family for 100 years or more.

To date, nearly 6,000 families in 93 Nebraska counties have been honored at various county fairs. Honorees receive an engraved plaque and gatepost marker as permanent recognition of this milestone.

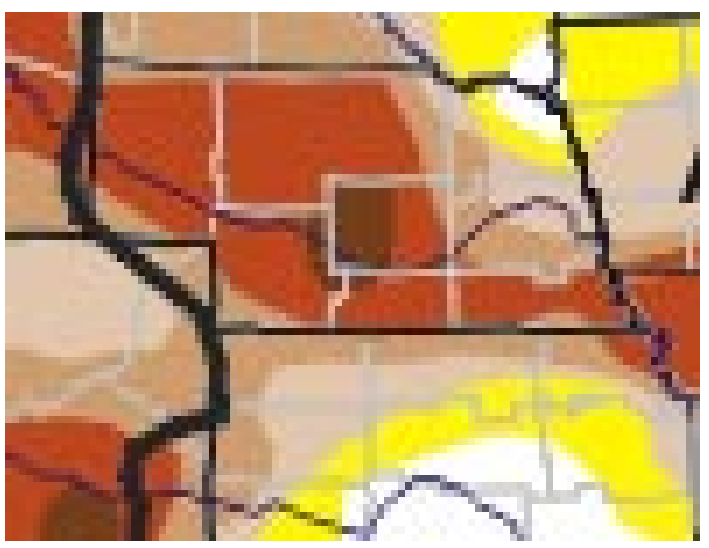
The awards will be presented at the 2003 Lancaster County Fair.

Nomination forms are available at the extension office, 444 Cherrycreek Road or the Lancaster Event Center office, 84th & Havelock. Forms must be returned to either office by May 1.

For more information, contact Deanna Karmazin at 441-7180. (DK)

Latest U.S. Drought Monitor Map

As of April, Lancaster County is in **severe drought** conditions with the following dominate impact types: Agricultural and Hydrological



For the most recent map, visit www.drought.unl.edu/dm

Security Concerns for Pesticides or Fertilizers

Recent terrorist events have created the need for people handling pesticides and fertilizers to re-evaluate the security of those materials. There are a number of concerns about poisonous or explosive materials ending up in the wrong hands.

Consider the following:

• How easy do you make it for an unauthorized person to gain access to pesticides and fertilizer? Can your vehicles or buildings be entered during times when employees are not present? Are locks and doors secure enough to deter a casual theft?

• If you are a pesticide dealer, how easy is it for an unfamiliar person to buy pesticides or fertilizer from your sales staff? Do all of your employees who sell pesticides or fertilizers know all of the customers and/or the people designated to pick up these products? Does your staff ask for identification of unfamiliar customers? Does your staff ask where these products will be used?

• Do you or your staff know what a "sentinel event" is? A sentinel event is a situation or specific occurrence that may indicate someone is testing their plans or your security. Sentinel events could be obvious or unnoticeable. Sentinel events could be things such as unsuccessful forced entry marks on locks or doors, unusual or curious tire marks near pesticide or fertilizer storage facilities, dead animals found in unexpected areas (not road kill), unexplained spills or stains in or near pesticide or fertilizer storage areas, unexpected discovery of tools stolen or left in storage areas or unusual telephone calls requesting the availability of fertilizer or pesticides.

This open shed is not a secure storage place for pesticides.

The Nebraska Department of Agriculture and University of Nebraska Cooperative Extension wants the public to avoid developing unneeded paranoia about their security, however, we feel it is prudent to raise your awareness of the issues impacting all of us in today's world. If you would like further information on security issues or sentinel events call Tim Creger or Rich Reiman at the Nebraska Department of Agriculture (NDA) at 471-2394.

Information may also be found on the NDA Web site at: www.agr.state.ne.us/division/bpi/pes/security.htm. A link to this information and other information has been added to the Crops/Pesticides page of the Lancaster County Web site lancaster.unl.edu/ag/crops/pesticid.htm

Source: Tim Creger, Nebraska Department of Agriculture, Pesticide Program Manager. (TD)

Managing Fertilizer Use in Dry Soils

With below-normal soil moisture prevalent in eastern Nebraska, producers may consider changing how they use fertilizer this spring. Dry soil influences how fertilizer can be applied and what happens to it after application.

Application Rates

Producers should carefully consider application rates this spring, particularly for nitrogen, which is usually based on expected yield. With low subsoil moisture in much of the area, the yield potential for dryland crops will be reduced compared to "normal" years. Farmers should be realistic when setting yield expectations. Consider fertilizing for lower yields than last year on dryland fields.

Anhydrous Ammonia

Many producers fall-apply anhydrous ammonia in the heavy soils in the eastern part of the state. If the anhydrous was applied after the soil temperature was below 50°F it would have taken most of the winter for all of it to convert to nitrate, which is the form of nitrogen subject to leaching. The other factor in leaching of nitrogen is there must be excess moisture that percolates below the root zone. Since nitrate is carried in the soil water, water that escapes below the root zone carries nitrate-nitrogen with it. Thus far, only the top 18 to 24 inches of soil has built significant soil moisture since harvest last fall. Even that zone is below field capacity (it could hold more moisture). An educated guess would be an additional six-inches of effective rainfall is needed to fill the root zone in most locations in the area. The good side is, the dry soil will have held all of the fall-applied nitrogen and it will be in the root zone when the crop needs it this spring.

The primary concern with spring application of anhydrous ammonia into dry soil is retention of the fertilizer. Silt loam and heavier textured soils in eastern Nebraska generally contain adequate moisture to react with and retain ammonia, even when seemingly very dry, as long as the injection depth is five to six inches below the soil surface and application rates are not excessive, according to Richard Ferguson, extension soils specialist.

Of greater concern is the ability to seal the injection slot. If the soil is very dry and cloddy, the farmer may observe white "smoke" behind the applicator. This "smoke" is actually water vapor condensed from the air by escaping ammonia. Although it takes a lot of "smoke" to add up to any significant fertilizer loss, it's still best to try to minimize fertilizer loss. If vapor loss cannot be minimized by 1) going to a deeper injection depth; 2) slowing down; or 3) reducing the application rate, it may be advisable to wait for better soil conditions or switch to a different form of nitrogen fertilizer.

Broadcast Fertilizers

Both dry and liquid fertilizers broadcast on the soil surface will be influenced by large amounts of residue, which may not have decomposed significantly due to the dry winter. Urea (46-0-0) and nitrogen solutions containing urea (28-0-0) can lose nitrogen to the atmosphere through ammonia volatilization when surface applied unless incorporated by tillage or rainfall amounts over one-half inch. Losses are higher when the urea is intercepted by crop residue which insulate it from contact with the soil.

Starter Fertilizers

Producers should be cautious about applying starter fertilizer with the seed this spring. Starter fertilizers which contain nitrogen and potassium are particularly hygroscopic—they will draw moisture away from the seed and seedling plants, resulting in germination damage and loss of stand. This effect will be accentuated with dry soils. Placing starter fertilizer in a band a couple of inches away from the seed will minimize the potential for germination damage. (TD)