

Pasture & Grazing

Illinois Drought Fact Sheet

2012 Drought Overview

As drought conditions continue to impact Illinois, NRCS has developed a plan to communicate information and resources to help you develop pasture management strategies for next year and in future drought years.

The summer of 2012 will go down in the record books. It was one of the driest on record for several Illinois locations and one of the most significant droughts across the area since the mid-1950s. Combined with days of heat stress, many crops quickly showed signs of failure. Areas in the Central and Southern Illinois were the hardest hit and considered severe. A few counties in the state received spotty precipitation (mainly in the Northwest), but not enough to significantly improve growing conditions. Late summer rains may have helped the soybean and forage crops to recover slightly; however, the drought is not over since the subsoil moisture is still low in many areas.

Droughty conditions greatly reduced forage availability across Illinois. First cuttings of hay had some reduction in yield and, in most areas, no second cutting was feasible. A third and fourth cutting was minimal. Pastures suffered yield reductions and normal production was cut in some areas by at least 50 percent from the average.

Grazing vs. Haying

Most cool-season forages such as orchardgrass and tall fescue will go either partially or completely dormant. Managed grazing of these stands may have less negative impact than haying, because it will open up the sod less and protect valuable cover. Pastures with good cover, dry or not, maintain a cooler soil temperature than ones with poor cover. Cooler soil temperatures could make the difference in whether the forage survives or not. With air temperatures above 100 degrees, pastures with poor cover could have soil temperatures ranging from 90 to 101 at two inches of depth. Pastures with fair to good cover could have soil temperatures from 74 to upper 80's. Cooler soils, even though dry, will be better for plant revival and should also slow oxidation of valuable carbon in the soil.

Grazing Periods

Forages will do best if allowed to rest after grazing periods to allow the plant to try and replace carbohydrate reserves. Producers often panic and become increasingly afraid they are running out of forage to graze. They mistakenly open up all the gates and let the livestock pick and choose at will. This drastically reduces adequate rest and promotes overgrazing, leading to weak and progressively slower responding forages. These overgrazed pastures will take much longer to recover once sufficient moisture returns, and if damage is prolonged enough, could be detrimental to the stand itself. Good productive forage stands are expensive to establish so care should be taken to prevent damage when possible.

Regrowth

Regrowth of pastures and grasses during a drought can be very limited. Livestock should ideally be allowed to graze to the desired ideal grazing heights as outlined in the 528 Prescribed Grazing Standard. Most tall cool season forages which are in question would have an average "stop" grazing height of about four inches. This minimum stubble height is needed to sustain the forage plant, its root base and solar panel. Leaving more leaf material after grazing, keeps root systems healthier, resulting in a quicker response of new growth once moisture and improved conditions return.

Dry Matter Inventory

It is recommended that producers conduct an inventory of forage dry matter on hand and estimate livestock present and future requirements and needs. Inventory all grazing livestock and assume at least three percent dry matter needs per body weight per day. Next, walk pastures noting any potential grazing forage present and estimate the amount of available dry matter present per acre. For a rough estimate, figure 250 pounds of dry matter per average acre inch present and subtract 3-4" that should be left behind. The total estimated from pasture and from hay reserves can then be weighed against livestock requirements. This figure represents what is present

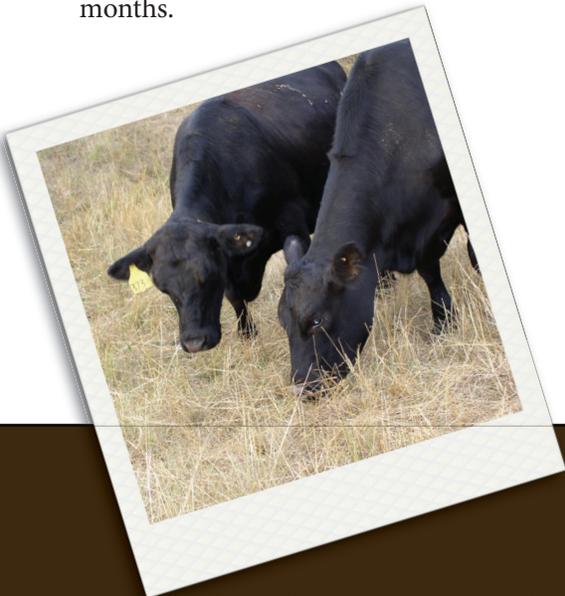




now. Lastly, estimate the potential fall regrowth on the conservative side for any possible stockpile or annual forages. The grazing efficiency or harvest efficiency level also influences the amount of hay or pasture that is consumed or wasted; roughly estimate this figure at 50 percent. This exercise should provide an idea of how much dry matter feed or hay is needed or how much will be in surplus until next season.

Rotational Grazing

Rotating livestock allows forages to rest between grazing periods. During drought conditions, longer rest periods are better. If there happens to be heavier amounts of forage available, slowing down livestock movements and concentrating grazing to very short durations allows them to consume the best forage present, increase usage and waste less. Allocating the forage in strips (strip grazing) with temporary fencing greatly increases control of the livestock and their grazing efficiency. During an extended drought, rest periods can often exceed 60 to 90 days or more as compared to more typical 30 to 45 day spans used during summer months.



For more information contact your local
USDA Service Center, NRCS office.

Sacrifice Areas

If pastures have been grazed down to their minimum recommended heights and no regrowth has occurred, then producers should consider moving livestock to a sacrifice area where they can feed the livestock hay and supplements as needed. If no sacrifice area is available, then use a temporary fence to create an area. The sacrifice area should have a fresh adequate water supply and offer some shade for periods during extreme temperatures. When air temperatures are over 85 degrees and humidity is also 85 percent or higher, shade becomes a necessity, especially during the heat of the day. Feeding hay is better than allowing livestock to continuously graze forages and overgraze. Overgrazing will weaken the pasture, lower animal intake, and compromise most chances of any good regrowth once adequate moisture returns. Protected reserves have more potential for increased growth of valuable forage for later or once the rain returns.

Looking Ahead and Monitoring

Continue to monitor for poisonous weeds in droughty pastures, especially where they may be one of the few green plants present. Also continue to monitor for high nitrate levels in corn stover harvested for feed; you can't be too careful. This also is true for CRP and easement ground that is grazed or hayed. Johnsongrass on these sites can concentrate nitrates and cause prussic acid problems under stressed conditions. As conditions slowly improve, landowners will get increasing opportunities to plant annual forages late in summer or early fall. Annual

forages can really help solve some drought induced short forage supplies. An inventory of pastures and hayfields should be conducted. Look for larger open areas between plants where seeding of grass and/or legumes may be needed. Interseeding hayfields with a grass and pastures with grass and/or legumes are good options to consider.

Combination seedings of annuals, such as oats, turnips and cereal rye, planted in August or September with adequate moisture can supply a nice amount of fall and early winter grazing and then later provide more grazing opportunities in the spring. Nitrates should also be monitored if these annuals are grown following a drought-stricken corn crop. Herbicides and pesticides used on those fields should also be checked and always follow all label restrictions. A bio-assay will help determine if any row crop chemicals are present that could harm the annuals to be planted.

Reducing Numbers

Though it is not the first choice by most producers, reducing animal numbers may be one of the best options for drought management. Culling late or out-of-season calving cows, old or hard-to-maintain body condition score animals is a good place to start. Readily marketable animals should be next, such as stocker cattle or retained heifers. Early weaning of calves can also be an option. Reducing numbers, especially if numbers are possibly excessive even for a good year, will help stretch forage reserves, reduce any hay or supplements needed and allow for longer rest periods for the pasture.

Additional drought information can be found at:

- www.il.nrcs.usda.gov
- http://www.il.nrcs.usda.gov/technical/grazing/grzmgmt.html#Drought_Planning_Considerations
- www.in.nrcs.usda.gov/technical/Coping_With_%20A_Short_Forage_Supply_2012.pdf
- www.extension.purdue.edu/dairy/forage/ForageNitrate2012.pdf
- <http://www.noble.org/drought/>