

## 2012 Drought Overview

As drought conditions worsen in Indiana, NRCS has developed a plan to communicate information and resources that can keep you informed about programs and services that can benefit you.

As of today, Indiana is the worst hit of the major corn and soybean states. Reports from every corner of the state indicate moderate to severe conditions comparable to the 1988 drought. Combined with days of heat stress, crops are quickly showing signs of failure. Areas in the Northeast and Southwest are the hardest hit and are considered severe. A number of areas in the state have received spotty precipitation (mainly in the Northwest and Southeast), but not enough to significantly improve growing conditions. Some of these areas where rain has fallen have also received high wind and hail damage.

Additional information can be found at:

- [www.in.nrcs.usda.gov/technical/Coping\\_With\\_%20A\\_Short\\_Forage\\_Supply\\_2012.pdf](http://www.in.nrcs.usda.gov/technical/Coping_With_%20A_Short_Forage_Supply_2012.pdf)
- [www.extension.purdue.edu/dairy/forage/ForageNitrate2012.pdf](http://www.extension.purdue.edu/dairy/forage/ForageNitrate2012.pdf)

Droughty conditions have greatly reduced forage availability in many parts of Indiana. First cutting of hay had some reduction in yield and, in most areas, no second cutting was feasible. Currently, pastures have suffered yield reductions and normal production has been cut in some areas by at least forty percent from the average.

## Grazing vs. Haying

Grazing instead of haying at this time is advisable. Most cool-season forages such as orchardgrass and tall fescue have gone either partially or completely dormant. Managed grazing of these stands may have less negative impact on the stand 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 recent air temperatures above 100 degrees, pastures with poor cover had soil temperatures ranging from 90 to 101 at two inches of depth. Pastures with fair to good cover had 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 their 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 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. The more leaf material left, generally the more roots being maintained and the quicker the response of new growth once moisture and improved conditions return.

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Rotational Grazing



Droughty Pasture



# NRCS Drought Fact Sheets

## Dry Matter Inventory

It is recommended that producers do an inventory of dry matter on hand and estimate livestock present and future requirements. 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 subtracting what should be left behind. The total estimated from pasture and from hay reserves can then be weighed against livestock requirements. This is what is present now. Lastly, estimate the potential fall regrowth on the conservative side for any possible stockpile or annuals. The grazing efficiency or harvest efficiency also influences the amount of this hay or pasture that is consumed or wasted; rough figure is at 50 percent. This will provide an idea of how much dry matter or hay is needed or 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 the livestock down and concentrating them for very short durations will allow them to consume the best forage present, increase utilization and waste less. Allocating the forage in strips with temporary fence greatly increases control of the livestock and efficiency. During extended drought, rest periods can often exceed 60 to 90 days or more as compared to our normal 30 to 45 days during summer months.

## 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 and feed the livestock hay and supplements as needed. If no sacrifice area is available, then temporary fence could be used to create an area. The sacrifice area should have a fresh adequate water supply and some shade for periods with extreme temperatures. When air temperatures are over 85 degrees and humidity is also 85 percent or higher, shade becomes a necessity for at least during the heat of the day. Feeding hay is better than allowing livestock to continuously graze forages and thus severely overgraze, weakening the pasture, reducing intake of the animals, and compromising most chances of any good regrowth once adequate moisture returns. Protected reserves have more potential of increased dividends of valuable forage for later on.

## 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 nitrates in corn being harvested for feed; you can't be too careful. This also falls true for the CRP and easement ground that is being grazed or hayed. Johnsongrass on these sites can concentrate nitrates and have prussic acid problems under stressed conditions.

As conditions slowly improve, we will get increasing opportunities to plant some annual forage this late summer and fall that can really help solve some problems. Combinations, such as oats, turnips and cereal rye, planted by early 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 following a drought stricken corn crop. Herbicides and pesticides utilized on those fields should also be checked and then follow any label restrictions.

## Reducing Numbers

Though it is not the first choice by most producers, reducing animal numbers may be one of the best options. 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 reserves, reduce any hay or supplements needed and allow for longer rest periods for the pasture.

<http://www.in.nrcs.usda.gov/drought.html>