Making Decisions Before Drought Strikes

The Drought Decision Calculator

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Environmental Factors that Affect Forage Growth

Other Factors:
- Soil type
- Solar rad.
- Previous season

This Season’s Precipitation

Temperature
Long-Term Average Monthly Precipitation

Average Annual Growth Curve

Cheyenne, WY
Average Precipitation = 15.1 inches
Precipitation and Forage Growth

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~30% of annual variation in forage production is explained by May precipitation

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Average Precipitation = 15.1 inches
Precipitation and Forage Growth

What does a knowledge of May precipitation really Mean?

Does a reduction in May precipitation by 50% mean a 50% reduction in peak standing crop?

What if both May and June have 50% of average precipitation? Does that mean there is no forage growth?
DROUGHT DECISION CALCULATOR
RFA-5084 Agreement Number: 05IE08310221
United States Department
Of Agriculture
Risk Management Agency
Agricultural Research Service
NRCS Natural Resources
Conservation Service
Protect America's Greatest Resource: Farmers and Ranchers
19% Reduction
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<th>Month</th>
<th>2006</th>
<th>2007</th>
<th>Change</th>
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<td>January</td>
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<td>7.19</td>
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<tr>
<td>February</td>
<td>8.53</td>
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<tr>
<td>March</td>
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<tr>
<td>April</td>
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<tr>
<td>May</td>
<td>39.66</td>
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<tr>
<td>June</td>
<td>55.86</td>
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<td>July</td>
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<td>October</td>
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<td>November</td>
<td>10.20</td>
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</tr>
<tr>
<td>December</td>
<td>7.86</td>
<td>7.86</td>
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<tr>
<td>Total</td>
<td>253.0</td>
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**34% Reduction**

Over Grazing During Drought Conditions Will Reduce Next Year’s Forage Regardless of Next Year’s Rainfall

**Percent of Normal Herd Size the Grazing Land Can Carry Based on Rainfall During Months Critical for Grazing Growth**

*Carry Over Effect is calculated based on rainfall in certain months of the previous year but not the whole year. Carry Over Effect MAY be affected by above average rainfall in April, May, and June of the current year.*

*Carry Over Effect* is 66% positive.

Please begin by selecting the number (1 to 4) for the section of the state that is relevant to you.

Rainfall Probability Tool

Choose an appropriate weather station:
- Adams 7 SSW

Choose the month of interest:
- June

Enter the amount of rainfall:
- 0

This is the percent chance you have of receiving this amount of rainfall or more in:
- June 81%
Drought Decision Calculator will be available soon for the following states:

North Dakota
South Dakota
Nebraska
Montana
Wyoming
Colorado
Utah
New Mexico
Nevada