

Grass-Cast: An Experimental Grassland Productivity Forecast (look for it online in Spring & Summer!)

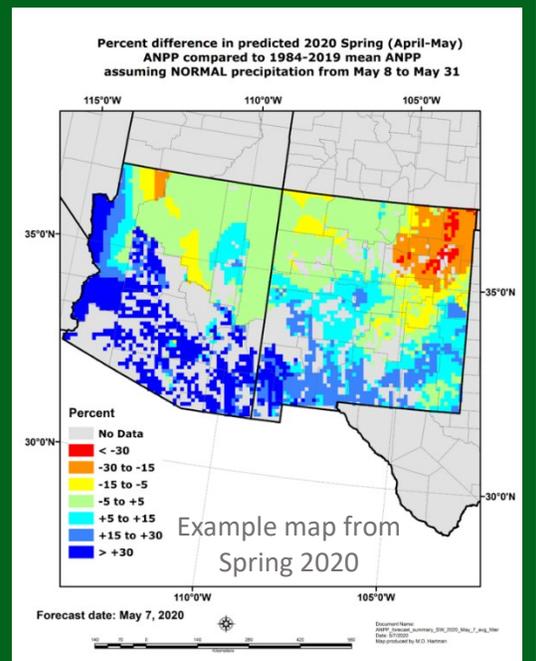
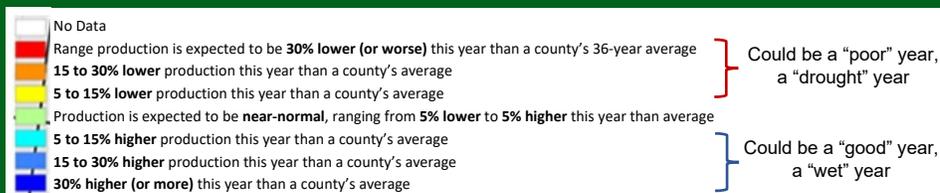
For livestock producers, Extension, NRCS, and other rangeland managers in the Southwest—a new forecast of peak standing grassland biomass for the spring and summer growing seasons.

How does it work?

Grass-Cast uses well-known relationships between historical weather and grassland production. It combines current weather data and seasonal climate outlooks (from NOAA Climate Prediction Center) with a well-trusted grassland model (*DayCent*) to predict total biomass (lbs/acre) for your local area, compared to its 36-year average.

Grass-Cast is an optional tool that managers can use to form a more-educated guess about the upcoming spring & summer growing seasons. It can help inform the design of proactive drought management plans, trigger dates, stocking dates, and grazing rotations.

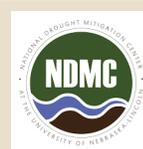
For more info visit <https://grasscast.unl.edu>



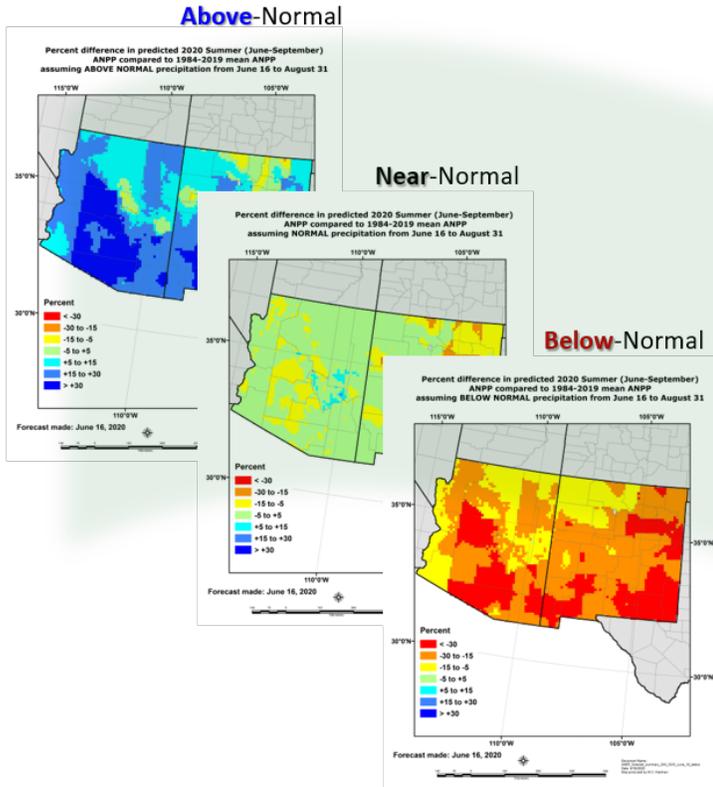
Have questions about the interpretation or science behind Grass-Cast? Contact **Dannele Peck** by email or phone: dannele.peck@usda.gov or 970-744-9043

Producers and agencies should not rely on Grass-Cast as a sole source for making management decisions. Nor should they look at Grass-Cast just once during each growing season. The accuracy of Grass-Cast improves with time as the growing seasons unfold, so it should be consulted every 2 weeks, when it is updated with newly observed weather data. Agencies are discouraged from using Grass-Cast as a sole source of information for setting stocking rates, determining turnout dates, or other aspects of lease agreements, allotments or permits.

A COLLABORATIVE EFFORT BY:



How much **more** or **less** grass will my area have if precipitation during the growing season is...



Why 3 different maps? Because forecasts are sometimes wrong! With 3 maps, you can explore 3 different “What-if” scenarios:

- 1) What if...your area receives **above**-normal precipitation in **Apr-May** (or in **Jun-Aug**)? How much *rangeland vegetation* might grow in **spring** (or **summer**), compared to your area’s 36-year average? The **top-left** map shows this scenario (using summer 2020 as an example).
- 2) What if your area receives **near**-normal precipitation? The **middle** map shows vegetation growth under this scenario.
- 3) What if your area receives **below**-normal precipitation? Consult the **bottom-right** map.

For those wanting to “look under the hood,” this diagram shows how the Grassland Productivity Forecast or “Grass-Cast” maps are made.

For details, go to: grasscast.unl.edu or email: dannele.peck@usda.gov

The “Grass-Cast” Procedure

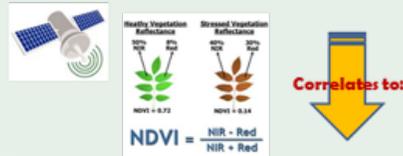
1. **Observed weather + Forecasted weather**



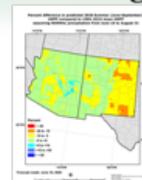
2. **Evapotransp.** for the growing season



3. **Greenness** for the season



4. **Lbs/Acre** of Veg for season



FUNDED BY:
 United States Department of Agriculture

Natural Resources Conservation Service
 Agricultural Research Service
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July 2020