United States Department of Agriculture

NRCS
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RANGE TECHNICAL NOTE NO. NM-102

SUBJECT: ECS – Drought Management Information for New Mexico Range Managers

Purpose: To distribute information to the field.

Effective Date: Effective when received.

Filling Instructions: File in office reference library also maintained on New Mexico NRCS web page.

Purpose of this Range Technical note is to make staff and others aware of this set of references on Drought Management in New Mexico.

The Climate portion of the New Mexico NRCS web page has been updated to make available references for rangeland drought modeling tools, drought weather information and drought impacts on in stream water flows. This information can be found at the following web address:

http://www.nm.nrcs.usda.gov/Snow/drought/drought.html

I want to thank Gale H. Dunn of ARS in Fort Collins Colorado and Arnold Norman of NRCS in Fort Worth, Texas for making the Drought Decision Calculator available for our use. I want to thank all the staff at Center for Natural Resource Information Technology (CNRIT) at Texas A and M University in College Station Texas for asking New Mexico NRCS to participate with them in testing the FRAMS application on selected New Mexico ranches.

Another drought monitoring tool that is now available for New Mexico NRCS' use and others is a complete set of the Normalized Difference Vegetation Index (NDVI) data observed by AVHRR satellites and provided by the EROS Data Center (EDC), U.S. Geological Survey. These maps are composited weekly and have 1.1-kilometer (0.6 mile) spatial resolution (Burgan and Hartford 1993, Burgan and others 1996, Burgan and Hartford 1996).

I want to thank Ray Hewett and Rusty Stovall of the BLM office in Las Cruces New Mexico. They, in conjunction with their leadership team are making weekly NDVI imagery available.

These images are a weekly comparison on a pixel by pixel basis of the current greenness reflectance index versus a running 20 year average for that pixel. The monthly map is the same concept except that the greenest or best index value for each week of the month is displayed for the monthly map. The pixels that show as white are areas where no data was collected (because of clouds or other interferance) for that week.

The numbers in the index that corresponds to a particular color is the percent deviation from that 20 year average. The following is a chart to help decide which BLM management unit corresponds to which NDVI map code. http://www.blm.gov/nm/st/en.html
CFO= Carlsbad Field Office FFO= Farmington Field Office LCDO= Las Cruces District Office RFO= Roswell Field Office RPFO= Rio Puerco Field Office SFO= Socorro Field Office TFO= Taos Field Office or you can just use the state wide map. At the web page below you can download one or more maps.

ftp://ftp.ftw.nrcs.usda.gov/cntsc/New_Mexico_NDVI_2008/

If you have any questions on this information please contact John Tunberg, State Rangeland Management Specialist at (505) 761-4488.

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