For More Information

Check with your local USDA Service Center providers:

- *Natural Resources Conservation Service*
- *Conservation District*
- *Farmers Home Administration*

Consult your local irrigation district or irrigation equipment suppliers

Contact your Cooperative Extension Service office

Check these Web sites:

- *www.usda.gov/drought*
- *http://droughtmonitor.unl.edu*
- *http://www.extension.org/pages/64730/drought-resources-content*

Other Tip Sheets

- *Water Conservation Tips for Stretching Irrigation Water*
- *Water Conservation Ideas for Dryland Farmers*
- *Water Conservation Tips for Stretching Water on Pasture & Range*
- *Crop & Irrigation Management During Drought*

To download these tip sheets go to: http://www.ut.nrcs.usda.gov/farmers.html

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Water Conservation Tips for Stretching Water on Crops & Soils

in Utah

NRCS
Natural Resources Conservation Service

www.ut.nrcs.usda.gov

Crop & Soil Actions to Conserve Water

Adjustments Farmers Can Make

The threat of water shortages from drought in Utah means that many farmers will have to make some difficult pre-planting decisions this year.

The acreage you normally plant and the type of crops planted may need to be adjusted. Some crops use more water and others need water later in the growing season when water may no longer be available.

Experiments have proven that fertile soils make more efficient use of irrigation water. If you cut back on acreage, make certain you plant your most fertile acres. Concentrate available water on those acres rather than trying to stretch it over the entire farm.

Knowing soil type is important. It is your guide to rate and frequency of irrigation.

Checklist

Here's a checklist of things to consider during this year's cropping season:

►Know precisely how fast your soil can accept water and its total water-holding capacity. This will allow you to decide how much water to apply at a given time.

►Determine the need for irrigation by shovel, auger, moisture meter, or the feel method. (see accompanying table)

►If you plant fewer acres, plant drought tolerant cover crops or leave standing stubble on unplanted fields to protect them from wind erosion.

►Irrigate fewer acres rather than spreading short water supplies over the entire farm.

►Consider minimum tillage. Every trip over the field with equipment results in moisture loss. Leave some residue on the surface to reduce moisture loss.

►Use chemicals rather than tillage to control water-using weeds.

►Apply fertilizer, particularly nitrogen, at a level to achieve near maximum yield. It is better to reduce acreage than to under-fertilize.

►Monitor insect levels and control as necessary to protect yields.

►Alfalfa and some cool season grasses can survive with minimal water. But, the stand will suffer, particularly if grazed too heavily.

►Decide whether you will have a little water all season, or more in the spring and none later on. Vary crops accordingly. For instance, alfalfa, cool-season grasses, corn and potatoes need water all season, but wheat, barley or oats need water early in the season.

Irrigation is needed when your soil feels and acts this way:

Soil Texture	A Handful of Soil will:
COARSE	Tend to stick together slightly, but will not form a ball.
MEDIUM	Be crumbly, but will form a ball
FINE	Be pliable, and will form a ball

Critical Water Need Times

All plants have critical water need times. Make sure you can provide your crops with water during their critical growth stages. Here are some examples of critical water need periods:

Crop	Critical Water Need
Alfalfa	Just after cutting for hay; at the start of flowering for seed production.
Corn	Early ear formation; from tasseling to silking stage.
Potatoes	Needs high soil moisture levels until potatoes are well-formed
Small Grains	Boot to heading stage.
Sorghum	From boot to grain formation.
Tomatoes	Flowering to fruiting stage.

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This publication provided as a service to Utah farmers and ranchers by the Utah state office of the Natural Resources Conservation Service
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For further assistance contact your county NRCS field office listed in the phone book under USDA.