TECHNICAL NOTES
U.S. DEPARTMENT OF AGRICULTURE BOISE, IDAHO SOIL CONSERVATION SERVICE

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DROUGHT TIPS FOR RANGELAND AND PASTURELAND

The following tips are suggested as ways to modify the adverse effects of drought and help prevent irreversible damage to rangeland, pastureland, and related resources. Such damages can result in permanently reduced forage production, springflow and streamflow.

Tips are suggested for management of forage, water, livestock, supplemental feeding, range improvements and soils.

1. Forage

-- Inventory forage reserves. Adjustments in periods of grazing or use of reserve forage supplies should be made as quickly as practical after it becomes apparent that forage will be in short supply.

-- Determine additional forage needs - lease additional pasture if available or purchase forage.

-- Avoid overgrazing. Overgrazed forage plants lose vigor and are unable to use nutrients (natural or applied) for growth. Overgrazing shortens the effective growing season of plants by delaying early season growth and causing early dormancy.

-- Develop planned grazing systems which designate where, when, and how long (tempered with observation) livestock will be grazed. Design to fit the individual operating unit and revise as needed.

-- Most well established introduced grass seedings can tolerate occasional close grazing better than native range.

-- Grazing readiness means allowing range forage to grow to enough volume to provide good quality feed and prevent damage to the plants. In drought years, this may occur considerably later in the season. By allowing rangelands to reach grazing readiness, thirty to sixty percent more total forage production will result. Livestock turned on ranges prior to range readiness frequently lose weight which in drouth years will be difficult to recover.

2. Water

-- Repair leaks in pipelines, water storage facilities, troughs, and float valves.

-- Reduce evaporation on ponds, troughs, etc. through use of evaporation retardants.

-- Spring development should receive high priority.

-- Fence springs and ponds. Provide water from tanks and troughs where possible. Improperly managed water facilities waste water, increase parasite and disease problems, and result in less gains on livestock.

-- Develop water storage facilities. Low producing wells and springs can be better used by piping into large storage facilities.

-- Establish watering facilities to meet travel distance to water requirements of livestock. This results in more efficient use of forage in all parts of the grazing unit.

-- Control excess shrubs in watershed of springs and ponds. Shrubs generally use two to three times as much water to produce a pound of air dry matter as do grasses and forbs.

-- Hauling water to temporary troughs is often practical in areas where the grazing period is relatively short and other sources of water are too costly. Make arrangements for hauling water as soon as the need is anticipated.

-- Include additional features at stock water developments which will allow small animals and birds safe access to water (these are usually not expensive and are easily installed).

3. Livestock

-- Cull the breeding herd more closely than normal. Reduce livestock numbers to balance with forage supply.

-- Market calves and lambs early in the season or as soon as the probability of a feed shortage becomes apparent.

-- Rent bulls or rams during the breeding season or use artificial insemination where possible.

-- Sell horses not needed for ranch work.

-- Control internal and external parasites. Animals heavily infested with parasites still use forage, however, do poorly. Fly control will keep livestock from running and using up energy and water.

-- Maintain flexibility in animal herd composition. This practice protects the integrity of the breeding herd, which is often established over a period of years at great expense.

4. Supplemental Feeding

-- Don't buy high protein feeds (cottonseed meal) where high energy feeds (corn, barley, grains) will meet the needs. Water intake rates increases with high protein rations.

-- Liquid protein supplement should be used only where there is adequate roughage (carbohydrate source) available, otherwise death loss will occur.

5. Range Improvements

-- Defer range seedings and pasture plantings until more favorable conditions exist.

-- Poisonous plants should be controlled or watched closely for use. Most poisonous plants are generally unpalatable to livestock but are usually green and available when other plants are dry and grazed off.

-- Defer chemical brush management until more favorable soil moisture - plant growth relationships exist.

6. Soils

-- Maintain protective cover, through proper grazing use, to avoid loss of topsoil. Topsoil loss can result in permanent reduction of productive ability of the soils.

-- Avoid overgrazing or otherwise destroying stream bank vegetation (it will be needed to prevent erosion, reduce sediment, and provide food and cover for wildlife).

References

SCS - Water Conservation Tips for Stretching Water on Pasture and Range.

SCS - National Range Handbook (1976)

SCS - Range Technical Notes (Various)