

# Summertime *and the Living Is Easy?*

Plants, like people and animals, need to store food to continue being productive.

## By Paul D. Ohlenbusch

It's hot. It's dry. That's outside! But inside the house or vehicle, hopefully, it's cool and comfortable. That's what we people feel!

How about the plants growing in the pasture? Well, it's hot and dry and the plants are suffering. As the soil dries out and the temperature rises, the plants begin to protect themselves by preparing for dormancy. Dormancy is when a plant shuts down all but the basic systems.

Another perennial plant function that is involved is stored food. All perennial plants (grass, forbs, and woody) store food for re-growth and extreme events. The storage is in the stems, crown, and upper roots. As a general rule, plants use stored food to produce each year's new growth. Stored food continues to be used as the vegetative growth develops. At some point, the new leaves are able to produce more food than needed for growth and storage begins. When reproductive growth is initiated, stored food is used for a while. Storage for the future then continues until dormancy occurs. In some species, storage will continue after plant dormancy.

There are other times stored food is used. Excess defoliation from events such as overgrazing, wildfire, and hail are examples of events that require stored food for recovery. When the plant is excessively defoliated before the end of the growing season, stored food is used to produce new leaves. Depending when defoliation occurs, food storage for the future may be limited. If excessive defoliation occurs for several years, the plant may become very weak or die.

How much defoliation is too much? As a general rule, if over half of the leaf area is removed, the plant has at least some stress. The more leaf area lost, the greater the stress. Controlling grazing is always important but is an even more important factor during drought. This is true for grass, forbs, and woody plants.

Dry periods or drought are a separate set of extremes. When the plant is stressed and becomes dormant before the end of the growing season, little or no food is stored for the future. If rain occurs and the plant starts new vegetative growth and dry weather forces it back into dormancy, stored food supplies are lowered. If this happens several times or the drought lasts for several years, plants

become very weak or die.

How long does it take for plants to recover? Hard to say. It depends on how long the stress (defoliation, drought) has been in place, what species are still present, and the weather pattern. Prevention is the best approach rather than recovery.

As one rancher used to tell me, "Take care of your land and vegetation and it will take care of you." His approach was to have a "worst case" management plan prepared to put in place when needed. Waiting until drought or other extreme event occurs to decide what to do usually means decisions are made quickly and maybe without a complete evaluation of the options. Each manager has their own unique preferences and basis that tend to dominate under pressure. *!!*

**Next time: Can management bring back species that have been lost?**

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