

April 6, 2023, RWFM Vegetation Management Class Lab at the ENRTA- Putting it all together

Rangeland is not treated with the same tools of management that would be used in farming, such as plowing, fertilization, and irrigation. In farming the land manager is trying to grow a single crop (cotton, corn, sorghum or bermudagrass) on the soil of a pasture or unit and all management is directed toward growing that single species. In contrast, Texas rangelands are the home of a variety of plant kinds and many species. Some rangelands were prairie, but they grew grasses, forbs or herbaceous plants and legumes. Other kinds of rangelands like savannahs and shrublands grew a great variety of plants including grasses, forbs, legumes, grass-like plants, half-shrubs, vines, shrubs and trees which led to a diverse population of native animals. Most farmlands are flat and rolling, while rangeland can have a varying topography of flats, rolling hills, to steep slopes, creating many niches for a large variety of plants and animals to live. Realize though, that the deeper soils and flatter lands of rangeland, became farmland in Texas.



- In 1973, Drucker described management “as the art and science of making the correct decision”
- The tools of management include seeding, unwanted plant control, prescribed burning, control of livestock numbers, time of grazing, fertilization, ripping, running an Airway or chisel, etc
- Brush and weed control practices include chemical, mechanical, biological and fire
- Do all people need the same practices?
- Practices help solve problems, but what caused the problem to begin with? Therefore, management is selecting the right things to do.



**What do warm season perennial grasses need to grow?**

1. **Plants need sunlight**
2. **Plants need water from rainfall events stored in the soil**
3. **Plants need soil and nutrients in the soil**
4. **Plants need CO<sub>2</sub> from the atmosphere**
5. **Plants need a growing space**

**If I as the manager do not meet all of these needs, the summer grasses will not grow or will not attain their genetic capability.**

**What tools of management will I use? So we hear the most marketing (education) on getting a soil test done in January or prior to spring green-up and we hear about removing competition. For pastures, I should not fail to provide 200 lbs of fertilizer no matter what the conditions are, or I may lose the competitiveness of the grass stand to invaders I do not want. Our grasses need rest to recover their chlorophyll area after a grazing event. Man is said to do two things in life, we mine it, or we grow it.**

**Our daily activities and our management decisions made that disturbance you see on the soil surface, making the soil surface bare and allowing the mineral soil surface to be exposed to full sunlight, or we removed protective plant cover that can either be live growing grass or the litter from previous seasons. These actions produce a result that are the exact environmental conditions that drive an annual weed system. A lot of land managers are learning how to grow more weeds.**

**On the rangeland resource, weeds are normal and are a part of the natural community of plants. When we note that there is an abundance of weeds, this tells us that a disturbance has taken place and certain parameters of the land are out of balance. E.J. Dyksterhuis wrote a book titled "A Philosophy on Man's Role in the Ecosystem" (1970). He wrote that the goal of management is to work toward bringing things back into "balance".**

#### **Conclusion**

**Most management practices affect plant succession and alter the plant community. What will it become?.**

#### **Final Conclusion**

**Life – Grass = Zero**

**How you treated the people and the land, not your wealth or accomplishments, is the most enduring impact you can leave on earth.**

**Barron S. Rector, Extension Range Specialist  
Texas A&M AgriLife Extension Service  
Rangeland, Wildlife and Fisheries Management  
[barron.rector@ag.tamu.edu](mailto:barron.rector@ag.tamu.edu)**

**BSR/**