

Virtual Perspectives of Management Strategies for Pastures and Beef Cattle: What to Look For

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The incoming of 2020 and the desired eyesight of 20-20 has introduced and perhaps forced an adjustment to “how we see things.” This year has seen a big increase in virtual interactions, such as Zoom meetings, web-based conferences, and even working from home, with less traditional face-to-face gatherings. Although these virtual venues may have been met with some early resistance, perhaps a benefit of online vs. in-person participation is the reduced need for travel. Travel is expensive and time-consuming; therefore, one could suggest that virtual interactions have saved us time and money. With this extra time and money, now is a good opportunity for property owners and managers to “take a closer look” at their land, livestock, and infrastructure resources, and discover possibilities for improvement.

The most important consideration to any pasture-livestock operation is that of the hardness or vegetational zone in which the property is located. Climate conditions and soil types set the boundaries from which production of forage and livestock can be projected. With the use of satellite maps, such as Google Earth, owned and leased property can be closely evaluated for the overall opportunities for forage x animal production in specific hardness zones (Figures 1 and 2).

Some of the components of the overall pasture-cattle operation that need to be considered or refined, and to examine more closely include:

- Soil test to determine specific pasture needs for fertilizer and/or limestone. The soil test is the best investment for efficient and effective forage production. In addition, soil type and topography are available at <https://websoilsurvey.sc.egov.usda.gov> which dictates forage species adaptivity.
- Forage species identification and overall pasture condition with respect to density of forage and extent of weed invasion. Forage species within a climatic zone sets the overall stocking conditions for the property.
- Location of corral(s) and use of portable or permanent equipment. Corral size, location, and specifications should include: a) wings for penning; b) sides strong enough and high enough to maintain specific cattle being used; c) traps, net wire, for weaning, etc.; d) water facilities in traps; e) electricity for lights, branding, dehorning, etc.; f) location of squeeze chutes for working cows and/or calves; g) pen design for least stress movement;

h) concrete alleyway-walkway; i) covered area for working cattle; j) loading and unloading facilities with appropriate access to roadway surface.

- Location of roads and potential for alleyways for penning.
- Availability and location of water via troughs and/or livestock ponds relative to number of animals and pasture size.
- Fencing considerations for permanent and/or electric fencing to set number and size of pastures.
- Methods of grazing for flexible stocking approach and opportunities for rotational stocking.
- Stocking rate that offers sustainability of soil and pastures and variable livestock numbers to match potential forage production.
- Animal decisions that include cow-calf and/or stockers; calving season(s); grazing seasons; overseeding potential; and supplementation requirements.

The virtual perspectives of planning can be time well spent, and useful and profitable when seeking comparative information on forage production within a specific vegetational region. The success of a pasture, rangeland, or livestock operation is dependent upon transforming the virtual aspects of management into what to “look for” to make strategic decisions and stocking strategies for sustainable pasture-animal operation. Perhaps the most useful factors to “look for” include forage height, pattern or selective grazing, and animal body condition. Forage height is a direct indicator of dry matter available for grazing or haying. Pattern grazing is an indicator of selection-refusal of forage based primarily on palatability of forage species and stocking rate. Forage density and ground cover are essential elements that define soil-pasture sustainability.

With respect to animal performance, body condition score (BCS) may be the most useful visual assessment of what to “look for” on a before- and after-the-fact management indicator for nutrition. Pastures, stocking rate, and/or other factors that reduce forage availability often reduce BCS. The best virtual management strategy is to be able to predict the potential changes in BCS that may affect maintenance, gain, or loss in body weight and related functions such as rebreeding. Some additional information related to BCS and pregnancy may be found at Herd and Sprott (1986). The virtual planning of management strategies enhances the level of experience and what to “look for” to make decisions ahead of changes in pastures and animals, and not be left behind the trailer load of cattle headed to the sale barn. The receptivity level and likely increased acceptance for virtual conferences has numerous advantages to fine tune management strategies. Virtual perspectives provide numerous opportunities to rethink and make time to confirm stocking and management objectives for the property. The least costs for inputs are those strategies that fit into the “What if” category of management. However, there are remaining questions for virtual meetings, such as “Where’s the Prime Rib or Barbecue?” The new trend may involve “Carry-Out.”

Figure 1. USDA hardiness zones of the I-20 corridor

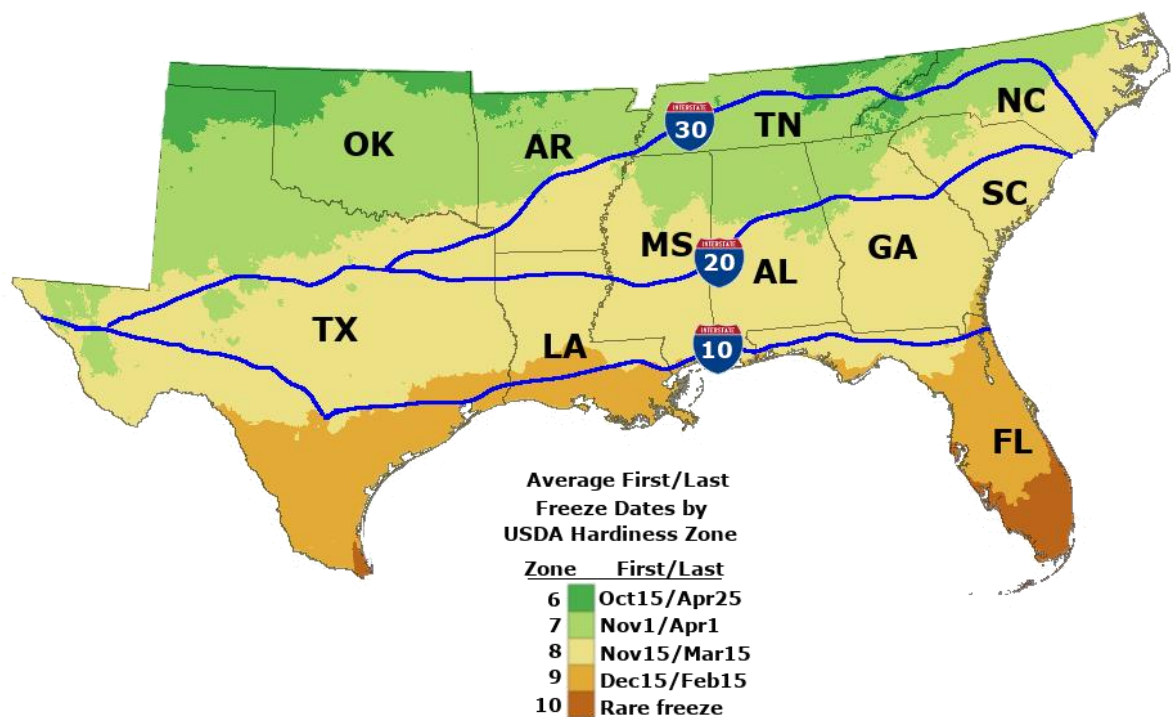
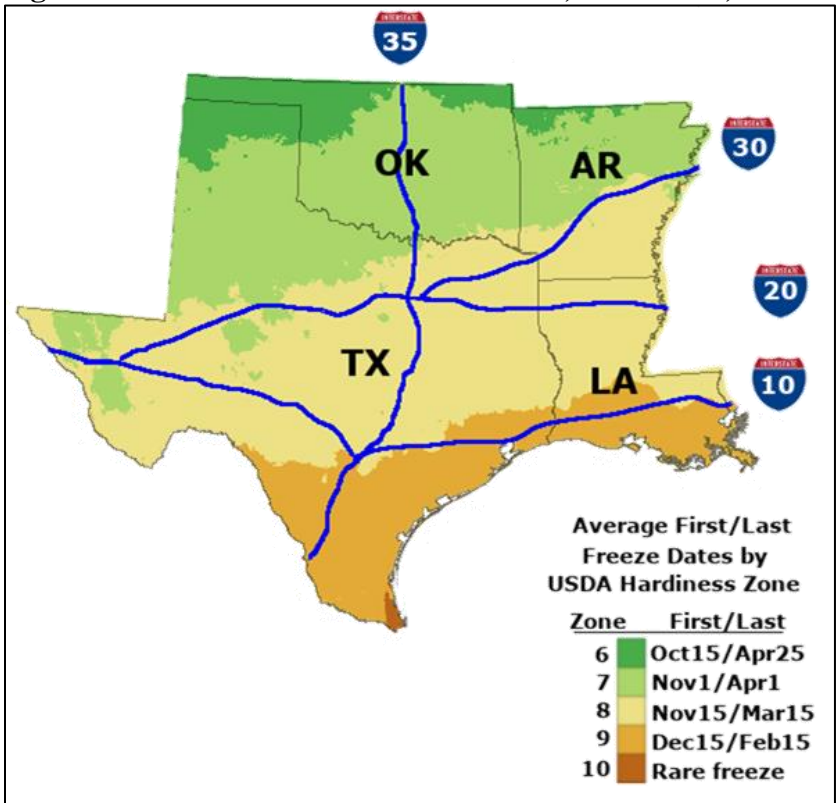


Figure 2. USDA hardiness zones of Texas, Oklahoma, Arkansas and Louisiana



Literature Cited

1. Herd, D.B. and L.R. Sprott. 1986. Body condition, nutrition and reproduction of beef cows. Texas Agric. Extn. Serv. Texas A&M Univ. B-1526.