

# BY DESIGN

## Supplementing cattle on pasture

by Reinaldo Cooke, Texas A&M University



With the arrival of the spring and green grass growing, beef producers can provide high-

quality nutrition to their cattle by combining grazing with strategic supplementation programs. That's particularly important in categories with high nutritional demands, such as yearlings and primiparous cows. For this strategy to be successful, producers need to design and develop feeding areas that allow adequate access to the supplemental feed without impairing pasture management and utilization.

Some key points to take into consideration when preparing these feeding areas include:

- ▶ Plan for  $\geq 100$  feet (ft.) of grass between the bared area where feedbunks are placed and drainage channels. The proximity to streams and waterways can cause environmental concerns and needs to be carefully evaluated when designing feeding facilities for grazing cattle. The 100-ft. (or more) grass strip serves as a buffer to filter manure runoff from the feeding site. Rainfall, type of soil and topography should also be considered when preparing feeding areas and

sizing the grass buffer strip.

- ▶ The feeding area can be strategically built on open ridges to alleviate excessive water drainage into the feeding site and maximize the opportunity for runoff infiltration into the soil. Place feedbunks in a north-south orientation to allow the sun to dry the areas on both sides of the bunks. Make sure cattle can access both sides of the feedbunks and have bunk space of 16-24 inches (in.) per head. Fenceline bunks should be placed in areas with plenty of grass availability to ensure adequate buffer protection.
- ▶ Build the feeding area to facilitate collection and removal of manure from the bared area near the feedbunk, which will improve sanitary conditions for cattle, alleviate the potential for manure runoff, and create the opportunity to use manure as fertilizer.
- ▶ Water availability and quality are of critical importance to cattle nutrition and feeding programs. A water source should supply 1.5 gallons of water per 100 pounds of



PHOTO BY SHAUNA HERMEL



liveweight within the 60-minute period after feeding. If water

troughs need to be built, plan for structures that allow 15% of the herd to drink simultaneously.

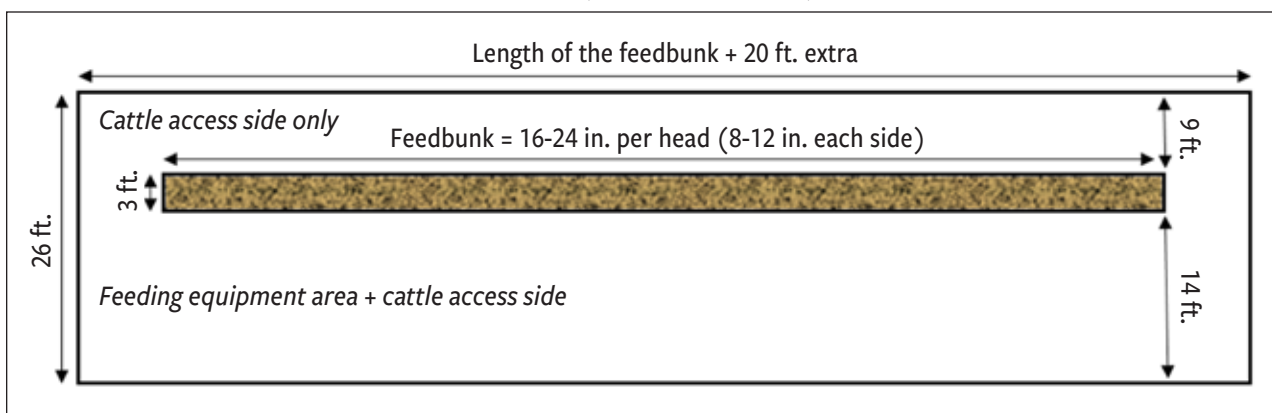
Use of permanent fencing and structures will prevent the opportunity to move the feeding site if needed, so plan for any

permanent constructions with caution. Permanent feedbunk pads should be at least 26 ft. wide when built on pasture. The example provided in Fig. 1 features a 26-ft.-wide pad providing 14 ft. on one side for equipment to deliver feed, 3 ft. for the feedbunk itself, and 9 ft. on the opposite side for cattle access.

The 14-ft. side is of extreme importance to ensure any equipment used for feeding can be fully driven on the pad and tires will not roll off the pad, which would create trenches and allow manure runoff to accumulate.

The success of any supplementation program depends on adequate feed intake and use, which in turn relies on proper design of feeding areas. ■

Fig. 1: Example of feedbunk pad built on pasture (crushed rock base)



Editor's note: "By Design" is a regular column of the *Angus Beef Bulletin* featuring facility and homestead design for cattlemen. Reinaldo Cooke is professor of beef cattle production at Texas A&M University.