



Cattle Producer's Handbook

Range and Pasture Section

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Use of Water and Other Tools for Improved Grazing Distribution

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Cattle that are grazing in pasture systems tend to be unevenly distributed across the landscape. This includes not only overgrazing in areas but also under-utilization of forage in areas of little or no use. Improving livestock distribution will allow landowners and managers the ability to more efficiently use resources across the landscape.

Understanding Current Distribution Patterns

The first step in the use of range developments for improved grazing distribution is recognizing problems and seeing opportunities to improve management. Monitoring livestock distribution, behavior, and pasture utilization helps cattle producers to identify potential problem areas and allows their assessment of needed improvements.

Visual Observation

One of the easiest ways to determine where cattle are located is through visual observation. Early morning observations of cattle will indicate where they have been grazing, within 400 to 500 yards, the past 15 hours (Lunt et al. 2011). These observations should be made weekly and marked on a topographical map along with weather conditions, range conditions, etc. This will indicate which areas of the pasture are being used and help indicate why changes took place.

Monitoring

Monitoring of range and pasture lands is detailed in Cattle Producer's Handbook fact sheets 518 and 520. Particularly relevant is the section on *Utilization Mapping* contained within 518. The data gathered from this type of monitoring will indicate which areas are heavily used and which are under-utilized.

Factors Influencing Grazing Distribution

Many factors (i.e., age and sex of cattle, vegetation type, slope, winds, and mineral availability) can be attributed to the disproportionate utilization of an area. Water is typically the major influence.

Class of Animal

The stage of a cow in lactation, and the age of her calf, may influence her tendency to travel and climb. Cows, in early stages of lactation, require more water and thus tend to stay nearer to the source. Additionally, those with younger calves may not be as apt to travel compared to dry cows or those with older calves.

Age and prior experience on the landscape have large influences on grazing distribution in rangeland pastures (Vallentine 1990). Cows that have grazed a pasture repeatedly tend to range more widely than yearlings grazing the area for the first time (Bell 1973). However, managers recognize that yearling steers, yearling heifers, and non-lactating cows typically utilize extensive pastures more evenly than cow-calf pairs.

Personal observations by the land manager will help adapt management specifically for the class of animal and pasture type. Managers may want to select animals based on their prior grazing patterns and terrain use for improving livestock grazing distribution (Howery et al. 1996). Selecting animals that prefer uplands slopes, higher elevations, or further distances from water may improve distribution in areas with these attributes. In turn, offspring from these animals may graze in the same manner (Bailey 2004).

Terrain or Topography

Cattle do not climb hills unless they must, and they do not climb well until they become acclimated to