



Cattle Producer's Handbook

Range and Pasture Section

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Irrigated Pasture Grass and Clover Selection for Areas without Summer Rain

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A major advantage of irrigated pasture over dryland range is having more forage species planting options because of supplemental water provided with irrigation. Pasture managers have the ability to choose the appropriate forage to match the key attributes of the pasture. These key attributes include irrigation, grazing management, soils, climate, and seasonal forage needs.

This fact sheet is intended to be useful to those developing permanent pasture. Therefore, all grasses discussed in this fact sheet are perennial, which means they live for 3 or more years. The information presented applies primarily to areas of the West characterized by cool, wet winters and warm, dry summers. It is assumed that without irrigation, the soils would become too dry for plants to survive summer drought.

In some cases, however, pasture species such as orchardgrass (berber) and tall fescue (prosper, flecha) have varieties with summer dormancy traits that allow their use in dryland situations. However, the goal of this fact sheet is to highlight options for increasing forage availability in areas that experience summer drought, thus, discussions are limited to the varieties within species that readily respond to irrigation.

Key Attributes for Initial Consideration

Irrigation

The availability of irrigation water will determine whether it is possible to plant species such as orchardgrass and perennial ryegrass, which will require a timely source of water all summer long. Deep-rooted grasses may be a better fit when circumstances such as irrigation district deliveries make the irrigation intervals farther apart than what is optimal. If water is available for only a limited duration, grasses with the ability to induce dormancy once the irrigation water supply is exhausted may be required. In this case, plant species such as intermediate wheatgrass, smooth brome, or meadow brome may be required.

For shorter lengths of drought the orchardgrass varieties Paiute, profile, or Paiute 2 may be possibilities. In

mild summer climates, some deep-rooted grasses such as tall fescue may also work in systems with a limited amount of irrigation water.

Management Options

The main ways to harvest irrigated pasture forage is haying and/or grazing. Depending on the market conditions and other ranch resources, a producer may want to choose one or the other or a combination of both.

Haying Management—The quality of hay from irrigated pasture is strongly influenced by the species used. However, forage quality is influenced more by plant maturity than the species harvested. A dramatic drop in quality (energy and protein) occurs as the plants become more mature. Hay fields harvested in the vegetative stage are of higher quality but lower yield than those harvested later in the plant cycle.

Multiple cuttings during the growing season can help maintain the quality of hay produced. Cutting 30 to 45 days after the previous harvest will generally provide reasonable yield and high quality hay. However, multiple cuttings do require more resources (fuel, labor, etc.).

A combination of haying and grazing can maximize production. By haying during the early rapid growth phase, a producer can harvest forage that may otherwise mature faster than the animals can eat it. These hayed pastures can then be added to a pasture rotation system to provide additional forage later in the growing season. This can help to reduce the presence of sharp awns from tall forage and alleviate problems in cattle such as pink eye. In addition, all pastures may be hayed and the aftermath used for grazing later in the season.

Grazing Management—Traditional grazing is either continuous (set stocked season long) or rotational, management-intensive grazing, or a combination of methods for irrigated pastures. It is important to understand the growth cycle of plants in your area to determine a grazing plan.