managing irrigated pasture

ASSOCIATE AGRICULTURAL ENGINEER

CIRCULARIA-195

MARCH 196

Management of irrigated pastures has three phases: Grazing, irrigation and regrowth.

For good results these phases must be recognized in setting up your pasture rotation. This means either green chopping the pasture in the field and carrying it to the stock, or dividing the pasture into six parts. The division, easily made with electric fence, makes it possible to graze part of the pasture while the rest is irrigated and allowed to regrow.

Plan so an irrigation can be made every two weeks. If such frequent irrigations are not made during periods of hot, dry, weather, the top 2 feet of soil will dry out, and pasture production will suffer.

Irrigated pastures should be carefully stocked. Plan your rotation so the stock will graze each section of pasture rapidly and move to the next. If each section is grazed down in from 5 to 7 days the system will provide from 25 to 35 days for regrowth. Figure 1 shows a normal irrigated pasture arrangement. Figure 2 shows the "strip" method which allows the stock on an area only large enough to support one day of grazing and requires daily moves.

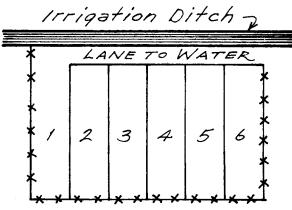


Fig. 1 - Pasture rotation. Fig. 1 shows pasture No. 1 open to the lane. After from 5 to 7 days of pasturing No. 1 is closed and the stock are moved to No. 2 etc. Electric fences separate the pastures.

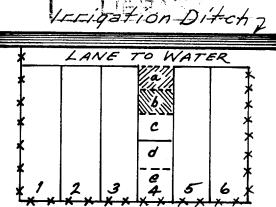


Fig. 2⁻² Strip grazing. The animals are in pasture No. 4. They grazed down 4a one day, 4b the next. They are now in 4c. They will finish 4d and 4e in two more days, and will go on to pasture No. 5a after that, etc. Electric fences separate the pastures.

A good irrigated pasture with a planned rotation should carry from 1-1/2 to 2 cows per acre during the pasture season.

You can increase the carrying capacity of your irrigated pasture by following these good management practices:

- 1. When the grasses in your pasture start to head they should be cut for hay. Your stockdoesn't like mature grass. If the grass isn't cut the production of the plant is reduced. Your stock will avoid mature grass and eat legumes. This increases the danger of bloat.
- 2. If your pasture is uneven when the animals are moved to the next section, clip it to assure uniform regrowth.
- 3. Drag your irrigated pasture once or more during the season to scatter manure. Your stock will avoid the rank growth around manure heaps. Any growth not eaten lowers the carrying capacity of your pasture. Time of dragging is

443

5.195

determined by the condition of your pasture. When you see that even grazing of the pasture is affected by manure, it is time to drag. A spike tooth or boss-harrow will scatter the manure effectively. Dry manure will spread best.

- 4. Irrigate your pasture as soon as you rotate your stock to another field. The top 2 to 3 feet of soil contain most of the grass and legume roots. It is not necessary to irrigate deeper.
- 5. If your pasture contains a legume such as alfalfa or clover, it should respond well to an application of from 100 to 150 pounds of 0-43-0 per acre. You can broadcast it either in the spring or late fall. If there are no legumes in the pasture, use from 100 to 160 pounds of nitrogen. Broadcast half in the late fall or spring, and the remainder in midsummer.
- 6. Your pasture may drop in production as it gets old. This will be especially true if there are not many legumes in your pasture. One way to keep your pasture producing well is to include it in a crop rotation, allowing from 3 to 5 years for pasture. Plow up your pasture when the grass crowds out the legume, or when it declines noticeably in the yield. If it is not in a crop rotation it can be cropped or reseeded to pasture.

IRRIGATED PASTURE AND BLOAT

Your irrigated pasture has a good carrying capacity because plenty of moisture produces good growth. Alfalfa or clover in your pasture makes bloat a danger. If the pasture contains no legumes 150 pounds or more if nitrogen must be provided by commercial fertilizer to make up for the nitrogen a legume would supply.

- Don't turn your cattle and sheep on lush legumes if they are hungry.
- 2. Dry roughage should be made available to stock on irrigated pastures. This helps keep a high roughage content in the animals' stomachs. Your cattle and sheep are not likely to bloat if they have plenty of roughage in their stomachs.
- 3. Keep limestone, odorless steamed bonemeal and trace mineral salt available to your stock while they are on irrigated pasture.

- 4. Keep drinking water available in irrigated pastures at all times.
- 5. If you can't leave your cattle and sheep on pasture over night, feed them roughages before turning them out to pasture in the morning.
- 6. Pastures seem more dangerous when wet with dew and on mornings following first frosts.
- 7. Don't pick a raw, windy day to turn your stock on pasture for the first time. The animals will eat too fast and look for shelter. When they eat too fast the danger of bloat increases. It is best to turn them out about mid-morning on a warm day, after they have been fed.
- 8. It may help to cut a few random swaths through your pasture. If you do this, make sure it is several days before stock is turned in. If it is too freshly cut, frothy bloat may result.

REMEMBER ----

- Bloat danger is worse when alfalfa or clover is growing rapidly.
- Animals bloat most readily after having gorged themselves when hungry.
- Keep a trocar and cannula, or a good knife, handy.
- Keep a supply of bloat medicine on hand. You can get it with instructions for its use from your veterinarian.
- Some animals are chronic bloaters. If you have one in your herd that bloats often, replace it as soon as you can.
- Inspect your cattle on irrigated pasture frequently.

RECOMMENDED PASTURE MIXTURES

Bromegrass 12 lbs.
Bromegrass 14 lbs. Alfalfa 2 lbs.
(Vernal or Ranger)

Don't seed pasture unless you have a good firm seedbed. Spring seeding is commonly practiced with irrigated pasture. Late fall seeding may be used if there is no legume in the pasture mix.

Don't put stock on an irrigated pasture the year it is seeded. Withhold grazing until the year after seeding. This gives the pasture a chance to get a vigorous start.

