



# **MANAGING IRRIGATED PASTURES**

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# MANAGING IRRIGATED PASTURES

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 dividing your pasture into two or more parts. The division, easily made with an electric fence, makes it possible to graze part of your pasture while part is being irrigated and allowed to regrow.

Plan your rotations so irrigations can be made every 15 to 20 days. If such frequent irrigations are not made, the top 2 feet of soil will dry out, and pasture production will be poor.

Irrigated pastures should not be overstocked. Your rotation should be planned so livestock is moved while there is still 4 to 6 inches of growth on the field being grazed. If a pasture is grazed closer, it takes the grass longer to regrow. Slower regrowth means less stock can be carried on your pastures.

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

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 clipped. Your stock doesn't like mature grass. If the grass isn't clipped, the production of the plant is lost. Your stock will avoid mature grass and eat legumes. This increases the danger of bloat.

2. 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 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.

3. 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 pasture roots. It is not necessary to irrigate deeper. Allow your pasture about 2 weeks for regrowth after it is irrigated—By then it will be ready to graze again.

4. If your irrigated pasture contains a legume such as alfalfa or clover, it should respond well to an application of from 150 to 200 pounds of 0-43-0 per acre. You can broadcast it either in the spring or late fall. Manure will help your pasture. Be sure the manure you use on your pasture has heated. Heating kills parasite eggs.

5. 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 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 makes grass grow. Alfalfa or clover in your pasture makes bloat a danger. If you don't have legumes like these it will take 600 pounds or more of 33-0-0 commercial fertilizer per acre to provide the nitrogen these legumes will supply.

Nitrogen, either from legumes or fertilizer, is needed to keep your pasture growing well. Legumes are much more productive than most grasses in the hot weather of July and August.

There is much that isn't known about bloat. Here are some precautions you can take that will make it less likely to occur:

(1) There is less danger of bloat if not more than half the forage in your pasture is legume. If grasses are allowed to mature, your stock will avoid them and eat a higher proportion of legumes. Bloat danger increases later in the summer. Most grasses produce less as weather gets hot. The proportion of legume in your pasture will increase in July and August. If your pasture maintains a 50-50 ratio of grass to legume forage during this period, the chances of bloat are slight.

(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 a mixture of 1/3 limestone, 1/3 odorless steamed bonemeal, and 1/3 trace mineral salt available to your stock when on irrigated pastures.

(4) Keep drinking water available in irrigated pastures at all times.

(5) Don't turn your cattle and sheep on lush legumes if they are hungry.

(6) If you can't leave your cattle and sheep on pasture over night feed them roughages before turning them on in the morning.

(7) Pastures seem more dangerous when wet with dew and on mornings following first frosts.

(8) 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.

(9) It may help to cut a few random swaths through your pasture. If you do this, make sure it is several days before stock are 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.

- Bloat is likely to occur when water or minerals are lacking or low.

- Keep a trocar and cannula, or a good knife, handy.

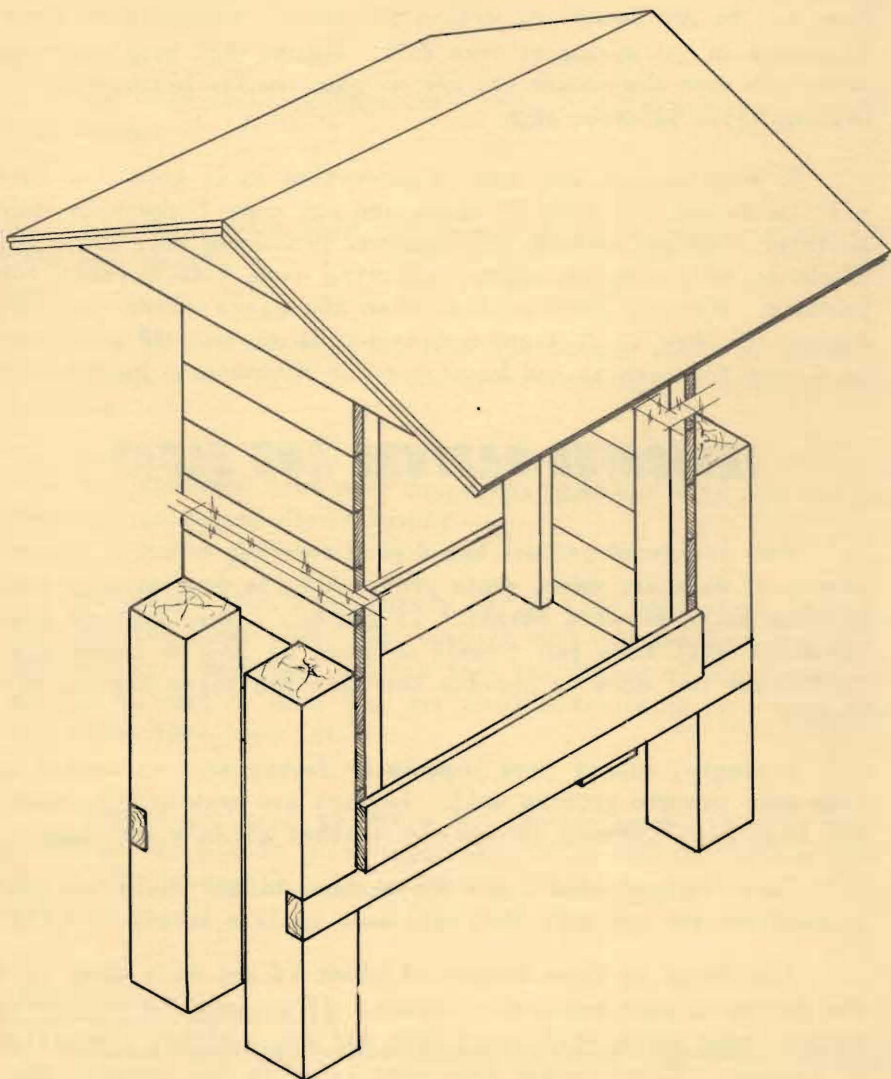
● Keep a supply of bloat medicine on hand. You can get it with instructions for its use from your veterinarian.

● Some animals are chronic bloaters. If you have one in your herd that bloats often, replace it as soon as you can.

## RECOMMENDED PASTURE MIXTURES

Brome	8 lbs.	or	Brome	14 lbs.
Meadow Fescue	4 lbs.		Alfalfa	3 lbs.
Alfalfa	2 lbs.		(Ladak or Ranger)	
(Ladak or Ranger)				
Alsike Clover	1 lb.			
Red Clover	1 lb.			

Other legumes and grasses, such as birdsfoot trefoil, Ladino clover, Reed canary grass and Orchard grass, are promising, but have not yet been proved adaptable for irrigated pasture use in most of North Dakota.



Saltbox that can be used in a divided pasture - Available to animals on either side of fence.

Assistance was given in the preparation of this circular by Dr. W. E. Dinusson, Associate Professor of Animal Husbandry; Dr. J. F. Carter, Associate Professor of Agronomy, and Dr. Glenn C. Holm, Professor of Bacteriology and Veterinary Science.