

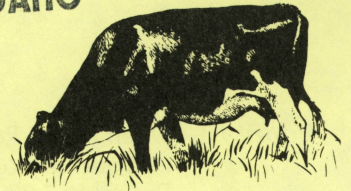


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Drought Planning for Livestock and Dairy Producers

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The shortage of water in Idaho will greatly affect the livestock and dairy producer in the 1977 crop year. Feed quality and quantity will be reduced by drought conditions across the state. Higher prices for feed will surely accompany short supplies.

To cope with drought, livestock and dairy producers must develop a plan of action. The objective of the plan is simple — *Match the feed and the livestock*. To do the most effective job of matching feed and livestock, you must consider these factors:

1. **Age of livestock** — This has a direct bearing on the amount of nutrients required.
2. **Kind of production performed** — Production may be growth, milk, reproduction or maintenance. All have different requirements.
3. **Feed availability** — Consider both quality and quantity of feed available for purchase of growing.

Planning for Livestock Producers

Write your plan out so you can refer to it occasionally. What are the considerations as far as the livestock are concerned? Feed needs are based on the

daily requirements for each animal and the number of days to be fed. If ordinarily your winter feeding time is 100 days, and the drought will cut fall feed availability to the point where winter feeding time is increased by 25 days, you can estimate feed needs accurately by the example in the table below.

Let's carry the example one more step and assume that you ordinarily produce enough alfalfa hay, 272 tons, for the inventory of cattle shown in the table. With drought conditions, what happens to hay supply and needs?

1. First, water limitations will decrease your hay production, possibly by as much as 25%. Instead of producing 272 tons of alfalfa, your production would be 204 tons.
2. Second, the shortage of fall feed would increase winter feed requirements by 25% to 340 tons.

Actually, then, you will be short 136 tons of winter feed — 340 tons needed, only 204 tons produced.

How do you adjust cattle numbers or feed supplies to do the most effective job of matching feed and livestock? You have these possibilities:

1. Buy additional feed.
2. Reduce livestock numbers.

Calculating drought effects on winter feed needs — an example.

Animal inventory	No. Head	Normal feeding period			Drought period	
		Alfalfa fed (lb./day)	Days fed	Total feed (tons)	Drought factor	Total feed (tons)
Mature cows	100	x 25	x 100	125	1.25	156
2 to 3-year-old cows	30	x 24	x 100	36	1.25	45
Replacement heifers, bred	20	x 20	x 100	25	1.25	31
Replacement heifer calves	30	x 14	x 100	21	1.25	26
Bulls	8	x 35	x 100	24	1.25	30
Carryover to yearlings	60	x 35	x 100	41	1.25	52
Total feed required (tons)				272		340

3. Look for alternative sources of feed.
4. Reduce feed consumption.
5. Manage for less waste in feeding, harvesting and storing.

If you choose to reduce numbers, again follow a plan so future production will not be jeopardized severely. Follow these priorities for reducing numbers:

	Feed savings per our example	
	<u>Head culled</u>	<u>Tons saved</u>
Priority 1. Open cows. Pregnancy test and sell open cows. Probably 10% of all mature cows and breeding heifers will not be bred. 130 x 10% x 1.58 tons =	13	20
Priority 2. Cull 15% of cows 7 years and older. In our example, there would be 47 cows of this age group. 47 x 15% x 1.58 tons =	7	11
Priority 3. Reduce heifer calves by 20%. 30 x 20% x .87 tons =	6	5
Priority 4. Sell calves normally held over for yearlings.	<u>60</u>	<u>14</u>
	86	88

A planned reduction of numbers such as this would save about 88 tons of feed without appreciably reducing the future production of the herd. Only 7 producing cows and 6 replacement heifers have been sold, plus the calves you would normally carry over to yearlings. And your projected feed shortage has been reduced from 136 to 48 tons of hay.

Planning for Dairy Producers

Planning on the dairy farm begins with an inventory of animals and feeds. "Matching the feeds to animal needs" is extremely important in maximizing return over feed expense.

Divide your milking herd into production strings. Usually three or four strings are required for maxi-

imum benefits. Cows in early lactation should receive your highest quality feeds, especially roughages. High quality alfalfa hay will be scarce and expensive for most of 1977 and early 1978. Make every effort to provide alfalfa hay about 18% in crude protein to high-producing, recently fresh cows. Mid-lactation and low-producing cows can produce adequately on lower quality alfalfa or high levels of corn silage. Providing high quality alfalfa to top producers will reduce your need to purchase additional protein.

Feed a minimum amount of alfalfa hay to dry cows. Corn silage, grass hay and cereal grain hay can make up the major portion of the diet. Consider the addition of calcium, phosphorus and vitamin supplementation if low quality roughages make up the total diet. If grain becomes favorably priced, it can replace some of the roughage in dry cow diets. Replacement heifers can also be fed lower quality feeds. If roughage price becomes extremely high, replacing part of the roughage with grain may be economical. Grain can also be used to maintain a steady growth rate on replacement heifers receiving limited or low quality roughages.

Reducing cow numbers is also a sound approach to fighting tight feed supplies. Cull borderline cows and replacement heifers that are substandard in conformation, size or genetic background. In most cases, putting the same amount of feed into a fewer number of cows will increase your return over feed expense. This is especially true when quality feeds are expensive and in short supply.

Formulate the ration for each class of livestock based on their nutritional requirement. Severe underfeeding can be expensive if adequate levels of production are not maintained. Feed testing and ration planning must be the objective of your feeding program.

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