

Brood Cow Wintering Rations With Short Hay Supplies

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Mature beef cows can be wintered successfully on a wide variety of feedstuffs and combinations. There is no one "best" ration, but some feedstuff combinations may offer greater economy than others in attempting to supplement drought-curtailed hay supplies. For most of the wintering period the ration should furnish at least 9 lbs of total digestible nutrients (TDN) and 1.2 lbs crude protein daily. Total ration allowance should be increased by at least 15 percent during late pregnancy when fetal development is most rapid. After calving the requirements increase to 16 lbs TDN and 2.4 lbs of crude protein per day.

Grains or other concentrate feedstuffs should be considered as partial substitutes for good hay for part of the ration. Although experimental information is not available, it would seem advisable to make certain cows receive at least 7 lbs roughage in long or coarsely ground form daily to insure normal rumen function and maintain some indigestible feed material or ballast in the rumen.

Low-grade roughages are typically deficient in carotene or vitamin A potency. Vitamin A needs of all cattle except lactating females are approximately 1,000 I.U. vitamin A per lb of air-dry feed consumed. It is common practice to furnish somewhat more vitamin A than this minimum requirement. Since it is a fat soluble vitamin, it need not be fed each day but can be injected, incorporated into range cube supplements, fed every five days or weekly in multiple daily amounts, or mixed into salt or minerals fed free choice.

Phosphorus is also likely to be lacking in the diet. Providing a phosphorous supplement free choice or incorporating the mineral into a range cube formulation would be wise. Range cubes should be formulated to provide a daily equivalent of at least 0.06 lbs (1 oz.) of a mineral containing 12 percent or more phosphorus.

The following combinations of feedstuffs are offered as possible alternatives to purchase and transportation of hay in hay-short situations. While these ration combinations may seem unconventional to most people for wintering brood cows, they should be considered in roughage deficient situations where some feed will need to be purchased or where the supply of good quality hay is sharply reduced from normal.

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SUGGESTED COW RATIIONS FOR HAY-SHORT OR EMERGENCY SITUATIONS*

RATION	Lbs. Per Day										
	I	II	III	IV	V	VI	VII	VIII	IX	X	
Low-protein range cubes (20%)	2	3	4	—	—	4	2	—	—	2	
Alfalfa hay	—	—	—	—	—	—	—	—	3	—	
Prairie hay	7	5	4	—	3	—	2	—	—	—	
Legume-grass hay	—	—	—	3	—	—	—	3	—	—	
Grain straw or slough hay	11	11	12	14	8	8	6	8	7	7	
Grain (12% + protein) or grain screenings	—	—	—	4	7	—	5	4	2	—	
Corn silage	—	—	—	—	—	—	—	15	25	40	
Beet pulp	—	—	—	—	—	5	3	—	—	—	

*Other ration suggestions can be found in Circular AS-591, North Dakota Cow-Calf Production.

Ration quantities suggested above should be adequate for mild winter weather (above 10° F) with limited wind chill. For periods of bitter cold weather, the above feed allowance should be increased by as much as 15 to 25 percent.

As a thumb rule, 1 lb grain and 4 lbs grain straw can be substituted for 5 lbs hay, up to a maximum limit of straw as 60 percent of the ration. DO NOT ATTEMPT TO USE STRAW OR COMPARABLE LOW GRADE, POORLY DIGESTIBLE, SLOW-DIGESTING ROUGHAGES AT LEVELS HIGHER THAN 2/3 OF THE COW RATION FOR PERIODS OF LONGER THAN ONE WEEK. Attempts to use excessively high proportions of poor roughage for extended periods of time can result in substantial condition loss and possible stomach impaction and death.