

LIVESTOCK WINTER & SUMMER RATIONS

Producers of organic ruminant livestock (cattle, sheep, goats, buffalo) are required to provide a full description of feed rations and calculations of how much of the ration is provided by pasture during the grazing season. According to NOS §205.340(b) a producer of ruminant livestock must provide a minimum of 30% dry matter (DM) from pasture on average over the course of the grazing season. If you test feed and have % of DM, you may use those numbers in the calculations. Have testing documentation available at your inspection if you have feed tests.

Directions:

Below are reference tables for 1) dry matter content of common feeds, 2) dry matter demand of lactating cows based on size and milk production, and 3) dry matter demand for other ruminant groups as percentages of average body weight. Using information from the reference tables, complete the ration charts for winter rations, grazing season rations and the dry matter from pasture calculations from the grazing season rations. Complete a separate ration chart for each group (milking, dry, brood animals, etc.) of ruminants on your farm that is fed a separate ration. We provide you with 5 ration charts to fill out for the different feeding groups on your farm. Make copies of the charts if you have more than 5 separate groups. The Silo Capacity, Silage Bag Capacity, and Standard Weights tables on the back of this page may be helpful to reference when estimating feed intake. Any changes to your ration must be recorded throughout the year. We also provide the Grazing Season Ration Record Spreadsheet for calculating ration changes for one group of animals over the entire grazing season. This form is available on our website.

1. PERCENTAGE DRY MATTER (%DM) OF COMMON FEEDS
Hay (dry, both legume and grass) = 85% DM
Haylage (any chopped forage except corn) = 35% DM
Green chop (any green chopped forage) = 20% DM
Baleage (any baled and wrapped forage) = 60% DM
Corn silage = 40% DM
High moisture corn = 76% DM
Grain (dry corn, beans, small grains) = 89% DM
Sprouted barley = 10-20% DM (dependent on the age of the sprout)

2. DAIRY COWS DRY MATTER DEMAND (DMD)								
AVERAGE MILK PER DAY	SMALL BREED <900- 1200#+ DMD	LARGE BREED 1200- 1400#+ DMD						
10#	21#	27#						
15#	23#	28#						
20#	24#	30#						
25#	26#	31#						
30#	28#	33#						
35#	30#	34#						
40#	31#	36#						
45#	33#	37#						
50#	35#	39#						
55#	36#	40#						
60#	38#	42#						
65#	40#	43#						
70#	42#	45#						
75#	43#	46#						
80#	45#	48#						

3. RUMINANT GROUPS: DRY	MATTER
DEMAND AS A PERCENT OF BODY WEIGHT	AGE
Dry dairy cows	1.8%
Bred dairy heifers (14-24 months of age)	2.5%
Unbred dairy heifers (6-14 months of age)	2.5%
Beef cattle (more than 1 year of age)	2.25%
Beef cattle (weaned, less than 1 year of age)	2.75%
Sheep (brood or milking animals)	3.65%
Goats (brood or milking animals)	4%
Sheep (weaned, slaughter or replacement stock)	3.3%
Goats (weaned, slaughter or replacement stock)	2.25%

SILO	SILO CAPACITY: TONS OF CORN OR GRASS SILAGE (65% MOISTURE) IN SETTLED SILOS												
	INSIDE DIAMETER OF SILO IN FT												
DEPTH OF SILAG E IN FT	12'	14'	16'	18'	20'	24'	26'	30'					
8	11	15	20	25	31	45	52	70					
12	19	25	33	42	52	75	88	117					
16	28	38	49	62	77	111	130	173					
20	38	51	67	85	105	151	177	236					
24	49	66	87	110	135	194	228	304					
28	61	83	108	137	169	243	286	380					
32	74	100	131	166	205	295	346	461					
36	87	118	155	196	242	348	409	545					
40	101	138	180	229	280	403	473	630					
44	117	159	207	261	320	461	541	720					
50	137	186	248	310	389	560	673	875					
55	1	212	319	365	444	639	750	999					
60	-	-	383	415	500	720	845	1125					
70	-	-	-	-	574	827	970	1290					
80	-	-	-	-	650	1100	1330	1880					
90	-	-	-	-	-	-	-	2470					

CAPACITIES OF SILAGE BAGS AT 13 LBS DM PER CUBIC FT DENSITY (65% MOISTURE)												
	8 F	EET	9 FI	EET	10 F	EET	12 FEET					
BAG DEPTH IN FT	Silage Length Capacity wet tons		Silage Length Capacity wet tons		Silage Length	Capacity wet tons	Silage Length	Capacity wet tons				
100	84	80	82	100	80	115	76	160				
150	134	125	132	150	130	190	126	265				
200	184	170	182	215	180	260	176	370				
250	234	220	232	270	230	335	226	475				
300	284	265	282	330	280	405	276	580				

STANDARD WEIGHTS OF FARM PRODUCTS PER BUSHEL (estimated at 89% DM)									
Barley -	48 Lb.								
Rye -	56 Lb.								
Corn (shelled) -	56 Lb.								
Corn (ear) -	70 Lb.								
Oats -	32 Lb.								
Soybeans -	60 Lb.								
Wheat -	60 Lb.								

1. RATIONS AND PASTURE CALCULATION FOR LACTATING DAIRY COWS													
A. DRY MATTE	R DE	MANI	O (DN	ID)									
NUMBER OF COW THIS GROUP			AVERAGE MILK PER DAY PER COW IN LBS			DRY MATTER DEMAND FROM DAIRY COWS DRY MATTER DEMAND CHART ABOVE							
B. WINTER (NO							C. SUMMER (G						
	M X AV	ERAGI	E LBS I	FED = DRY MA		FED		M X AV	ERAGE I	LBS F	ED = DRY MAT		FED
LIST ALL FEED TYPES	% DM OF FEED AVERAGE FED PER C			AVERAGE I FED PER C		DM FED	LIST ALL FEED TYPES	% DI	M OF FEE	ΞD	AVERAGE L FED PER CO		DM FED
Example: Grain, corn	89%	(.89)	X	10#	=	8.9#	Example: Grain, corn	89%	(.89)	X	10#	=	8.9#
			X		=					X		=	
			X		=					X		=	
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			Х		=					х		=	
Total DM Fed											Total DM F	ed	
D. PASTURE CALCULATION													
DMD (from A)	inus		DM Fe	=	sture D Fed	divided by	DMD (from A)	= _			_ X 100= _		percent from pasture

2. RAHUN	S AND P	AST	URE CAL	_CU	LATION								
Which Group						Number of a	nimal	s in tl	his g	roup:			
A. DRY MATTI the left two digit				DMD	as a percentage	of average body	weight	. Aver	age v	weight x % (n	nove	the decimal to	
	SE WEIGHT PER			DMI		/EIGHT FROM RUMIN HART ABOVE	ANT	DRY MATTER DEMAND					
			х				=						
B. WINTER (N						C. SUMMER (
LIST ALL FEED TYPES	M X AVERAGE		AVERAGE L FED PER I	LBS	DM FED	LIST ALL FEED TYPES		M OF FE		FED = DRY MA AVERAGE L FED PER H	BS	DM FED	
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	+	X		=					X		=		
			Total DM I	L					~	Total DM I			
DMD (from A)		I DM Fed rom C)		Fed		(from A)						percent from pasture	
3. RATIONS													
	S AND P	AST	URE CAL	.CU	LATION								
Which group	?					Number of a			_				
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4. RATIONS	S AND PA	STU	RE CAI	CU	LATION									
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_	E WEIGHT PER			Di	MD AS % OF BODY W		RT		DRY MATTER	R DEM/	AND			
			х				=							
B. WINTER (N						C. SUMMER (GRAZING) RATION (Do not list pasture)								
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Grain, corn	89% (.89)	х	10#	=	8.9#	Grain, corn	89% (.89)	+	10#	=	8.9#			
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	-	X X		=			-	X X		=				
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		х	-	=				х		=				
		х		=				х		=				
			Total DM F	Fed					Total DM F	ed				
DMD (from A)		DM Fed m C)		sture DN Fed	divided by	DMD (from A)	=		_ X 100= _		ercent from pasture			
										_				
5. RATIONS		STU	RE CAI	CU	LATION	Al longfor	· 1. i	11 12 22						
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the left two digit								Taye w	Elgili X 70 (iii	000 11	ne ucumar to			
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			х				=							
B. WINTER (N						C. SUMMER (GRAZING) RATION (Do not list pasture)								
LIST ALL FEED	% DM OF FEI		AVERAGE L	LBS	F ED DM FED	% DM X AVERAGE LBS FED = DRY MATTER FED LIST ALL FEED % DM OF FEED AVERAGE LBS DM FED								
TYPES Example:	89% (.89)	X	FED PER H	HD =	8.9#	TYPES Example:	89% (.89)		FED PER HI	ID =	8.9#			
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D. PASTURE O	'ALCULATIO	X X	Total DM F	=					Total DM F	=				