

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

WYOMING

SOIL CONSERVATION SERVICE

BIOLOGY NO. 37

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FORAGE UTILIZATION BY GAME SPECIES

GAME BIRD CONSUMPTION RATES

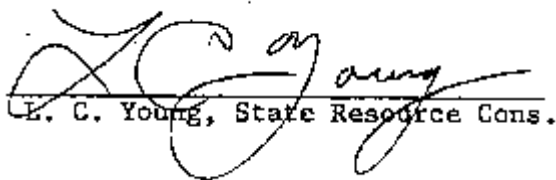
The following table lists the consumption rates of different species of game birds. At most damage occurs during the fall and winter seasons, only these consumption rates are listed.

	GRAIN
Canadian Goose	.38 lbs/day
Mallard	.20 lbs/day
Blue Winged Teal	.06 lbs/day
Canvasback	.07 lbs/day
Lesser Scaup	.05 lbs/day
Pheasant	.23 lbs/day
Turkey	.03 lb/lb body wt.
Sandhill Crane	1.5 - 1.75 lbs/day
Sage Grouse	.24 lbs/day

Taken from:

Compiled by Richard C. Rintamaki
State Biologist

Evaluation of Damage Caused by Wildlife,
J. Demaree, T. Fagan, January, 1981, Rev.
September, 1982., Wyoming Game and Fish


E. C. Young, State Resource Cons.

ANIMAL UNIT EQUIVALENTS

Based on 800 lbs/AUM

<u>Class of Livestock or Wildlife</u>	<u>AUM Conversion</u>	<u>A.U.E.</u>
Mature cow w/ calf	1.00	1.0
Mature bull	1.25	.8
Weaned calf	.60	1.7
Yearling, 12-17 months	.70	1.4
Yearling, 17-22 months	.75	1.3
2 yr. old 22-32 months	.90	1.1
Horse	1.25	.8
Mature ewe w/ lamb	.20	5.0
Ram	.20	5.0
*Bison	1.00	1.0
*Whitetail deer	.14	7.1
*Mule deer	.13	7.8
*Elk	.48	2.1
*Antelope	.09	10.8
*Bighorn sheep	.14	6.9
*Moose	.83	1.2

* Closer estimates would require hard composition data and approximation of ages of offspring.

The above data was compiled by Bill Hepworth from the Game and Fish Lab and Fee Busby and Jim Waggoner from the University of Wyoming.

To arrive at a fairly accurate amount of forage consumption for a group of animals, herd composition must be taken into account. The following tables and lbs/day consumption are based on data compiled by the Game and Fish lab in Laramie. By plugging in the different percentages of herd composition, the average weight per animal of the herd can be found. Further computation with the follow-up tables will result in lbs/day consumption and AUM conversion factors. Dietary composition should be used to further break down the forage consumed in a damage investigation. Analysis of collected fecal pellets will help this regard.

<u>Bighorn Sheep</u>	<u>Whole Wt (lbs)</u>		<u>Herd Comp (%)</u>		<u>Total lbs</u>
Lambs	60.2	x	15	=	903
Ewes	120.8	x	50	=	6,040
Rams	149.4	x	35	=	<u>5,229</u>
					12,172

Average wt = $12,172/100 = 122$ lb/sheep

122 lb bighorn = 1.22 cwt

1.22 cwt x 3.17 lb forage/cwt/day = 3.87 lb/day

1 bighorn unit month = 30 days x 3.87 lb/day = 116 lbs /month

800 lb/AUM

116 lb Bighorn UM = 6.9 sheep consume 800 lb forage/month

6.9 conversion factor: 1 AUM = 6.9 bighorn unit months

<u>Antelope</u>	<u>Whole Wt (lbs)</u>		<u>Herd Comp (%)</u>		<u>Total lbs</u>
Fawns	49	x	35	=	1,715
Does	97	x	43	=	4,171
Bucks	106	x	22	=	<u>2,332</u>
					8,218

Average wt = $8,218/100 = 82$ lb/antelope

82 lb antelope = .82 cwt

.82 cwt x 3.0 lb forage/cwt/day = 2.46 lb/day

1 antelope unit month = 30 days x 2.46 lb/day = 74 lbs/month

800 lb AUM

74 lb antelope UM = 10.8 antelope consume 800 lbs forage/month

10.8 conversion factor: 1 AUM = 10.8 antelope unit months

<u>Mule Deer</u>	<u>Whole Wt (lbs)</u>		<u>Herd Comp (%)</u>		<u>Total lbs</u>
Fawns	70	x	35	=	2,450
Does	121	x	45	=	5,445
Bucks	160	x	20	=	<u>3,200</u>
					11,095

Average wt = 11,095/100 = 111 lbs/deer

111 lb deer = 1.11 cwt

1.11 cwt x 3.1 lbs forage/cwt/day = 3.44 lbs/day

1 mule deer unit month = 30 days x 3.44 lbs/day = 103 lbs/month

800 lb AUM

103 lb deer UM = 7.8 deer consume 800 lbs forage/month

7.8 conversion factor: 1 AUM = 7.8 deer unit months

<u>Elk</u>	<u>Whole Wt (lbs)</u>		<u>Herd Comp (%)</u>		<u>Total lbs</u>
Calves	241	x	28	=	6,748
Cows	467	x	50	=	23,350
Bulls	461	x	22	=	<u>10,142</u>
					40,240

Average elk wt = 40,240/100 = 402 lb/elk

402 lb elk = 4.02 cwt

4.02 cwt x 3.1 lbs forage/cwt/day = 12.46 lbs/day

1 elk unit month = 30 days x 12.46 lb/day = 374 lbs/month

800 lb AUM

374 lb elk UM = 2.1 elk consume 800 lbs forage/month

2.1 conversion factor: 1 AUM = 2.1 elk unit months

<u>Moose</u>	<u>Whole Wt (lbs)</u>		<u>Herd Comp (%)</u>		<u>Total lbs</u>
Calves	413	x	33	=	13,629
Cows	831	x	45	=	37,395
Bulls	970	x	22	=	<u>21,340</u>
					72,364

Average moose wt = 72,364/100 = 724 lb/moose

724 lb moose = 7.24 cwt

7.24 cwt x 3.0 lbs forage/cwt/day = 21.72 lbs/day

1 unit moose month = 30 days x 21.72 lbs/day = 652 lbs/month

800 lbs AUM

652 lbs moose UM = 1.2 moose consume 800 lbs forage/month

1.2 conversion factor: 1 AUM = 1.2 moose unit months