

Goat Nutrition Standard Edition Modules

Goat Edition to the BRaNDS software

Purpose:

The Goat Nutrition Standard Edition Modules are designed for ration evaluation and manual formulation of growing and mature dairy, meat, and mohair goats. The software utilizes the guidelines outlined in the National Research Council's 2007 publication *The Nutrient Requirements of Small Ruminants* as the primary basis for these guidelines.

Computer system requirements:

This software utilizes Microsoft Excel to display information and will require the program to operate successfully. Any version of Excel installed on a Windows or Mac capable of opening an .xls file will work. Additionally, reports can be printed to a .pdf file for sharing.

General features:

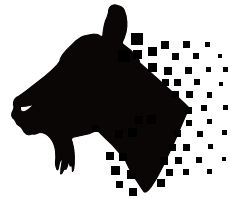
A default feed library is included with a fairly inclusive list of ingredients and their analysis, but this library is designed for easy additions for the user's actual feedstuffs and nutrient values.

- Dry matter intake, energy, protein, fiber, vitamin, and mineral components can be addressed in each formulation.
- Diet cost and cost per unit of weight gain or per day are included in all results along with the status on adequacy of each nutrient.
- Batch sheets, ration summaries, supplement reports, and diet analysis reports are part of this package as well.

Unique features:

- Metabolizable protein is used for addressing protein needs so both rumen degradable and non-degradable protein are used in assessing protein adequacy.
- Effective neutral detergent fiber (fiber particle size and quantity) is considered in diet formulation.

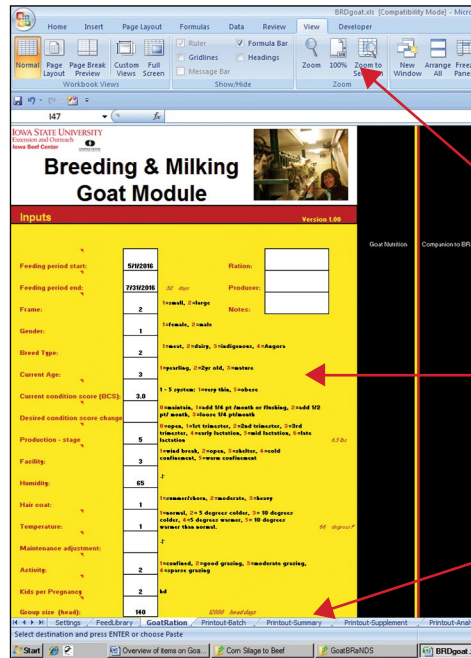
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Utilize the Excel menu to save and print reports.

Input Screen – quick and easy inputs with balancing section immediately below.

Easy tabs for navigation to things like settings, feed library, and reports, etc.



Formulate a supplement to provide 0.72 pound			
Nutrient	the following per head per day.		Feeding Rate
Net Energy	Mcal NE m		Mcal/lb
Crude Protein	pounds	0.00	3.3 % CP
Salt	grams	18.52	34.02 %
Calcium	grams	10.07	18.49 %
Phosphorus	grams	4.90	9.00 %
Magnesium	grams	1.03	1.90 %
Potassium	grams		%
Sulfur	grams	2.23	4.10 %
Selenium	milligrams	1.79	33.0 ppm
Zinc	milligrams	213.68	3925.6 ppm
Copper	milligrams	68.59	1260.2 ppm
Manganese	milligrams	73.50	1350.3 ppm
Cobalt	milligrams	0.38	6.9 ppm
Iodine	milligrams	2.74	50.4 ppm
Iron*	milligrams		ppm
open	milligrams		ppm
Vitamin A	IU x 1000	9.43	78586 IU/lb
Vitamin D	IU x 1000	2.36	19647 IU/lb
Vitamin E	IU	785.86	6549 IU/lb
open	grams		
Ionophore	milligrams		Write in desired amounts to provide per head per day.
open	milligrams		
open	milligrams		

Supplement Report

This report provides a guideline in terms of what the mineral and vitamin supplement needs to include after the base ration is provided.

Mature Goat Batch Sheet							
Batch size >>>	Lbs. added		Scale wt. % AF	1800 lbs			
	100 lbs	70.0 lbs		630.0	630	665.0	665
barley seed	35.0	35.0	35.0%	630.0	630	665.0	665
corn-rolled	35.0	70.0	35.0%	630.0	1260	665.0	1330
soy-extr/roast	13.0	83.0	13.0%	234.0	1494	247.0	1577
soy-meal hi	15.0	98.0	15.0%	270.0	1764	285.0	1862
mineral	1.0	99.0	1.0%	18.0	1782	19.0	1881
yeast	1.0	100.0	1.0%	18.0	1800	19.0	1900
86.5 lbs DM							
	2000 lbs		2100 lbs		2200 lbs		
barley seed	700.0	700	735.0	735	770.0	770	
corn-rolled	700.0	1400	735.0	1470	770.0	1540	
soy-extr/roast	260.0	1660	273.0	1743	286.0	1826	
soy-meal hi	300.0	1960	315.0	2058	330.0	2156	
mineral	20.0	1980	21.0	2079	22.0	2178	
yeast	20.0	2000	21.0	2100	22.0	2200	

Batch Report

This report provides a guideline in terms of mixing large batches of feed



- Net energy requirements for body condition gain or loss are included along with the requirements for animal maintenance, pregnancy, and production.
- A built in supplement calculator that will generate a report indicating the necessary minerals, vitamins, as well as additional energy and protein still required to balance the existing ration is included.
- Environmental impacts are included in energy requirements as diets are formulated.
- Feed Cost per day and per pound gain, with the ability to account for feed shrink are calculated with each ration formulation.

To purchase the software go to:

<http://store.extension.iastate.edu/product/as9>

Photo credit: Garland Dahlke.

IOWA STATE UNIVERSITY Extension and Outreach Goat Nutrition				Mature Goat Ration Summary Sheet		Ration: Producer: Notes:
Date	5/1/2016 - 7/31/2016	Kids/Pregnancy	2	hd		
Breed Type:	dairy	Facility	shelter			
Gender:	large female	Humidity	65 %			
Age:	2yr old	Hair Coat	summer			
BCS:	3	Temperature	normal			
BCS Change:	maintain	Maint. Adj.	%			
Production:	mid lactation	Activity	good grazing			
	6.5 lbs					
Feed	% of DMI	Lbs./hd./day	%waste	Ration Summary		140 head
c-s-gr-early boc	46.6%	6.50	5.0	Dry matter intake	lb/hd/day	6.8
corn-rolled	38.3%	3.00	0.5	Estimated DMI		7.1
soy-extr/roast	15.0%	1.10	0.5	Consumption		93%
				NE Requirement (%)		96.3%
				MP Requirement (%)		96.1%
				DMI : Wt		4.0%
				ADG (lbs)		-0.27
				BCS change		-0.41
				Milk (lbs)	6.5	4.00% 3.20%
				grams - provided vs. required		
				Salt	2.34	19.82
				Calcium	11.95	25.47
				Phosphorus	9.44	14.24
				Magnesium	5.59	7.44
				Potassium	39.33	32.29
				Sulfur	5.36	6.87
Feed delivered per head		10.60 lbs.		Feed cost /hd/day		\$0.55
Feed consumed per head		10.25 lbs.		Feed cost /hd/period		\$50.63
Ration levels						
Dry matter	64.6%	TDN	78.8%	Cr. Protein		17.1%
ADF	19.4%	NE m (Mcal/lb)	0.87	DIP ratio		91%
eNDF	15.2%	NE g (Mcal/lb)	0.54	Lys:Met		3.02
Wg. A (M/U)		Est	8.2%	Ca : P		1.27



Ration Summary Report
Provides a general overview of the ration on what is provided and how well it satisfies the nutrient needs of the animal. More detailed reports and analysis are contained in the program itself.

... and justice for all

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the U.S. Department of Agriculture. Cathann A. Kress, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.