Precision Flock Management
Technology That Can Save You Money

SheepBytes.ca
Ration Balancer

Precision Flock Management

Precision Flock Management (PFM) is a systematic management approach for getting the most from your flock. RFID technology and management tools can be used to enhance your production and financial performance.

THagedorn, AARD

What is SheepBytes?

The Alberta Lamb Traceability Project (LTP) collected data that confirms 40% of the cost of producing a market lamb is in feed. The SheepBytes software program was developed to assist producers in building feed rations that are cost effective and provide optimal nutrition for every sheep in every stage of production. You can use SheepBytes to fine-tune flock feeding: to improve flock productivity; to reduce feed wastage and to manage feed costs.

What can SheepBytes do?

Using SheepBytes you can formulate rations for different animal types: mature ewes and rams, replacement ewe lambs and ram lambs, early weaned lambs, growing lambs and finishing lambs.

Rations are based on the latest Nutrient Requirements of Small Ruminants (NRC 2007) data. That means you can now balance rations for larger, more productive ewes and more rapidly growing lambs.

SheepBytes also allows you to take into consideration various environmental conditions, different animal body weights, and different body condition scores. The program balances rations for all major nutrients and key micronutrients. You can add in water test results when needed. SheepBytes will alert you to nutritional deficiencies that can compromise milk production, lamb growth, fertility, and lamb survival. It also provides alerts when feed ingredients or excess feed is costing you money.

Handy colour codes provide quick information: green means all is well; orange means proceed with caution; red means stop and take a close look. Be aware that due to the combined art and science of feeding sheep it can be almost impossible to have absolutely no red show up in a ration. Red is a warning you just need to look to see if there is a problem. If the problem is nutritional, you need to contact a nutritionist for help with the ration. If it's a cost warning, you need to look at other feed options.

SheepBytes Ration Balancer — Welcome back, Demo User | Help | Change Password | Logout

Title: Growing Lamb Demo • Growing Lambs | Large Size Breeds | Wt 29 kgs | ADG 0.2 kgs

Tabs: Ration | Animal | Feeds | Feeding Information | Yardage Calculator | Water | Notes | Client | Calculator | Reports

Add Feeds | Edit | Remove Feeds | Create Mix | Un-create Mix | :: Ratios   NOTE: All nutrients must be entered on a dry matter basis

Feed Name	As Fed (kgs)	DM Fed (kgs)	As Fed (%)	DM Fed (%)	DM (%)	NEm (Mcal/kg)	NEg (Mcal/kg)	Protein (%)	Calcium (%)	Phosphorus (%)	Cost As Fed ($/unit)	Unit Weight (kg/unit)	Magnesi (%
BARLEY SILAGE	1.5876	0.5842	68.6	47.2	36.8	1.39	0.81	11.10	0.46	0.27	40.00	907	
OAT GRAIN	0.4990	0.4501	21.6	36.3	90.2	1.82	1.19	11.30	0.08	0.34	3.00	15	

Dry Matter Intake	Maximum(kgs): 1.21	Recommended(kgs): 1.15	Supplied(kgs): 1.24	As Fed(kgs): 2.31	Pred. ADG(kgs): 0.30	Days To Gain ½ BCS: 7	Cost($/HD/Day): 0.26

Results		Dry Matter	NEm (Mcal)	NEg (Mcal)	Protein (g)	Calcium (g)	Phosphorus (g)	Cost ($/HD/Day)	Copper (mg)	Magnesi (g
Recommended Nutrients Per Day		1.15	0.78	0.74	180	3.7	2.8		5	
Supplied In Feed		1.24	0.78	0.76	188	13.7	4.7	0.26	5	

The power of a tool like SheepBytes is evident when you look at the numbers in flock profitability. Top performing flocks in the LTP project had average feed costs of $44 less per lamb marketed than the lowest performing flocks. With 130,000 lambs slaughtered in federal and provincial Alberta facilities in 2011 it is easy to see how reducing feed cost by $44 per lamb marketed could save producers millions of dollars of in feed cost annually.

How does SheepBytes work?

SheepBytes is not the old DOS version Alberta producers have used since the 1990's. It isn't a traditional software program that you install on your computer. SheepBytes is written using modern web application frameworks that provide the flexibility of being able to work with leading edge technology (mobile handhelds, mobile phone applications). It also enables you to access and work with your rations on any computer; in your office, in the barn, at your vet's or in the feed company office. A web application can be continuously improved to provide you with automatic updates every time you sign in; you never need download an update again. And, above all SheepBytes has been developed to meet the needs of your rapidly changing lamb business.

SheepBytes Ration Balancer — Welcome back, Demo User | Help | Change Password | Logout

Title: Growing Lamb Demo • Growing Lambs | Large Size Breeds | Wt 29 kgs | ADG 0.181 kgs

Tabs: Ration | Animal | Feeds | Feeding Information | Yardage Calculator | Water | Notes | Client | Calculator | Reports

Search: Feed Name — All | Byproduct | Chaff | Fats | Grain | Hay | Milk | Mineral | Mix | Search
Pasture | Salt | Silage | Straw | Supplement | Vitamin — Clear

New | Copy | Edit | Delete | New Mix | Reports •   Export XLS

	Category	Feed Name	DM (%)	NEm (Mcal/kg)	NEg (Mcal/kg)	Protein (%)	Calcium (%)	Phosphorus (%)	Cost As Fe ($/unit)	Unit Weight (kg/unit)	
✓ add	Byproduct	ALFAL SUNCURE	90.0	1.38	0.80	17.6	1.35	0.20	395.00	1000	
add	Byproduct	ALFALFA MEAL	92.0	1.34	0.76	18.9	1.37	0.25	235.00	1000	
add	Byproduct	APPLE POMACE-W...	22.0	1.60	0.99	5.4	0.23	0.11	25.00	1000	
add	Byproduct	BAKERY WASTE	92.0	2.23	1.54	9.0	0.15	0.24	50.00	1000	
add	Byproduct	BEET MOLASSES	78.0	1.79	1.16	8.5	0.15	0.03	19.00	25	
add	Byproduct	BEET PULP	91.0	1.78	1.15	8.8	0.66	0.11	8.85	20	

THagedorn, AARD

The science behind the software

SheepBytes has comprehensive feed libraries based on average nutrient analyses of many common, and not so common, feeds. You also have the option of adding a custom library of the feeds grown or purchased for use on your farm. The SheepBytes feed library options enable you to balance rations to meet your own flock nutritional needs and your flock management by providing many feed variables.

Individual feeds vary significantly depending on: where they were grown; weather conditions during the growing season; and, of course, there is the year-to-year variation in market price. By adding in the costs of feeds, the price per head is automatically calculated for every change you make in a ration. Print reports allow you to compare different rations then save the one you choose for a particular animal group in a particular year.

Rapid access to accurate information

Managing feed costs is one of the most important keys to better flock returns. Being able to rapidly access accurate ration information, in the farm office, in the barn, or at the feed company allows producers to have greater control over flock feeding and feed costs.

SheepBytes also allows users to easily share the information with nutritionists, veterinarians, and feed company consultants.

Specialized version for commercial users

The commercial subscription allows multiple users to interact with the data and with rations. That makes it ideal for use by feed companies, veterinary practitioners, academic institutions, any company with multiple locations and any consultant with multiple clients. It provides unlimited filing capacity so you can access a client's ration in the future to figure out a feeding problem or to duplicate a good ration.

SheepBytes can do more than just balance a ration. It generates printable reports for:

• Batch mixes for grains or supplements or total mixed rations
• Feed wastage during feeding
• Combined feed inventory for select animal groups
• Nutrients from water that can influence nutrient requirements

THagedorn, AARD

THagedorn, AARD

Try the free SheepBytes demonstration

This program is a result of strong industry collaboration between Alberta Rural Development (ARD) and the Alberta Lamb Producers (ALP) with funding support from the Alberta Livestock & Meat Agency (ALMA). Together they are looking for improved technologies that can help Alberta producers run more competitive and sustainable operations.

As market fluctuations, increasing foreign competition and increasing costs continue to challenge producers today, ALP and ARD are committed to finding new ways to encourage production of top quality lamb and to build sheep businesses to be proud of. Leading-edge technology like SheepBytes helps Alberta producers run more profitable and productive operations. In conjunction with other flock management tools like Radio Frequency Identification (RFID) technology and flock data management systems like the Flock Snapshot financial analysis tool, producers can hone their management processes, cut costs, and have the ability to verify that they are providing the best product available in the market today.

SheepBytes.ca
Ration Balancer

To find out more about the application and subscription information please go to:
www.sheepbytes.ca

Your partners in building better lambs

ALMA
Alberta Livestock
and Meat Agency Ltd

Alberta Lamb Producers

Government of Alberta