

This program is designed to help producers determine supplement needs for full fleeced gestating ewes grazing winter range, crop residues, or other potentially low quality or dormant forages. The program makes the assumption that ewes with below 2.5 (early gestation) or 3.0 (late gestation) average body condition score need to gain body weight, while a ewe with a relatively high body condition score can mobilize some of her energy and protein reserves to offset winter feed costs. The program is based on the 1985 NRC Nutritional Requirements of Sheep (<http://www.nap.edu/books/0309035961/html/>) and sheep winter grazing research conducted by the late Dr. Verl Thomas and Mr. Van Horn at Montana State University's Red Bluff research ranch, as well as other pertinent published research. The program takes into account the positive associative effects that a protein supplement may have on intake and digestion of low quality forage. The recommendation of no more than .2 to .3 pounds of grain/100 wt per day per ewe is based on the negative associative effects high amounts of starch can have on intake and digestion of low quality forages.

To use this program a producer must know stage of gestation and ewe body condition. Stage of gestation for the flock can be determined based on breeding dates. If body condition scoring all the ewes is not practical, body condition can be estimated on a subset of ewes (approximately 10%) that represent the condition of the flock or band. See the information on the main menu page titled "Body Condition Scoring by Thompson and Meyers, Oregon State University. The winter range supplement program is based on a more liberal interpretation of body condition score than that presented by Thompson and Meyers. During mid-gestation, the winter supplement program is designed to increase body weight gain on ewes with a BCS less than a 2.5, maintain body weight on ewes with a 2.5 BCS, and use incrementally increasing body energy and protein reserves to offset winter feed costs-clarify on ewes with a BCS of 3 or greater. During late-gestation the winter supplement program is designed to increase body weight gain on ewes with a BCS less than a 3, maintain body weight on ewes with a BCS 3, and use incrementally increasing body energy and protein reserves to offset winter feed costs on ewes with a BCS of 3.5 or greater-clarify.

Forage availability and forage quality estimates are subjective. Forage availability impacts the ewes' ability to consume. Factors such as above ground available biomass, previous grazing, wildlife use, snow cover, plant density, travel time, distance to water, and availability of snow for water all impact forage availability. Forage availability can change drastically from day to day. This program is designed for long term strategic supplementation goals and overall winter conditions. Short term events such as excessive snow cover must be considered independent of the program. High forage availability means the ewe has access to all of the forage she can consume. Low forage availability mean the ewe can only consume 75% of what she would typically consume. Scaling between these values is a skill left up to the producer. If forage availability is so low that the ewe can not consume 75% of her ad libitum (all she can eat) intake, then we recommend moving the ewes to a more confined area and using the Balance a Diet program to formulate a complete ration.

Forage quality is based on an estimate of protein content in the available forage. Again these are subjective estimates by the producer. High, medium and low forage quality correspond to greater than 9 % CP, 6 to 8% CP, and less than 5% CP, respectively.

These values are based on what the ewe selects - not an estimate of forage quality based on clipped samples. Clipped samples are typically lower in crude protein than the actual diet of the sheep.

Although the program attempts to consider and adjust for a variety of animal, forage, and environmental factors, it may not be correct for all situations and combinations of variables. In addition, the information generated by the program can be no better than the data entered. We strongly suggest that users save each year's conditions and results, match these results with lambing records, and compare and fine-tune the winter supplementation program based on this combination of information. The program does not list all possible supplementation strategies, rather use this program as a tool along with your sheep and forage management skills to increase the probability of the most profitable winter supplementation strategy.