BODY CONDITION SCORING EWES AND LATE GESTATION NUTRITION

Mark A. McCann
Animal and Poultry Sciences, Virginia Tech

An affordable management tool available to all sheep producers is the scoring of ewes for their body condition or body fatness. Being aware that ewes are too fat, too thin, or just right can be a helpful barometer of one's flock management throughout the year. Body condition scoring describes the condition of a ewe, is convenient, and is much more accurate than a simple eye appraisal.

A body condition score estimates body fatness with scores ranging from 1, very thin to 5, obese (Figure 1). The scoring is based on feeling by hand the degree of muscling fullness and fat cover over and around the vertebrae in the loin region (last rib to the hip bone). Ewes should be standing level and be relaxed when be scored. If handling over the spine feels very sharp, checking over the forerib for condition can confirm whether the ewe is a 2 or 3. If ewe are in full fleece be sure that you are handling through the wool and not being biased by the fleece.

The nutritional adequacy of ewes during the first 90 days of pregnancy can be assessed by tracking changes in body weight and body condition. During the first month after breeding, ewes should, if possible, maintain their weight and body condition. Short periods of either severe underfeeding or excessively high levels of feeding at this time can adversely affect embryo survival. In many cases, it is not possible to prevent some loss of weight and condition following breeding, but it is important that any losses are gradual and don't exceed 3 to 4 percent of the ewe's weight at breeding.

During the second and third months of pregnancy, a change in a ewe's weight becomes more difficult to interpret because of the increase in her weight due to fetal products (fetus, uterine wall, placenta, fluid, etc.). For example, at 90 days of pregnancy a 150 pound ewe carrying twins would have 10 to 11 pounds of fetal product included in her body weight or 6 to 7 percent. Taking into account this increase in weight due to the uterus and its contents, an acceptable body weight change during the second and third months of pregnancy would be a net loss of between 4.5 to 9 pounds (3-6% of ewe's body weight). Losses greater than this are likely to affect fetal growth and hence birth weight and lamb vigor may become adversely affected. Identifying thin ewes in early or mid gestation can allow you alter your feeding program to move the condition to 3 or 3.5 by lambing.

In late pregnancy (last 60 days), the rapid growth of the fetus makes changes in body weight difficult to interpret. The ewe's requirements for energy and protein increase rapidly during this period and especially during the final few weeks of pregnancy. Approximately 70% of the fetal growth occurs during the final six weeks. The difference in a ewe's weight between a single fetus and twin fetuses over this short period can be over 6.5 pounds. Although a ewe will generally be drawing on some body reserves during this time, her tissue weight loss should be more than offset by the increase in weight of the fetus or fetuses plus the uterine

fluid weight. As a general rule, a satisfactory level of feeding in late pregnancy should result in a body weight increase over the final eight weeks of about 10% in single-bearing ewes and 18% in ewes carrying twins. A 150 pound ewe carrying twins should increase her body weight by 27 pounds.

Body condition is a more meaningful way than body weight change of assessing the adequacy of nutrition during late pregnancy because its evaluation is independent of number of fetuses. Identifying thin ewes in late gestation will allow you to make a nutrition or management change that should improve the ewe's nutritional status. However, do not expect to significantly change body condition of the ewe in late gestation by increased feeding. The development of the fetuses take priority in late gestation and overfeeding now will only increase lamb birth weight and not ewe condition. Thus, for thin ewes in late gestation, make a moderate change in their supplementation and ewes will produce heavier, more vigorous lambs and produce more milk in early lactation.

Poor Nutrition during Late Pregnancy

The importance of ewe nutrition in late gestation cannot be emphasized enough. Poor nutrition during this period can have the following results:

1) An increase of ketosis (pregnancy disease).
2) An increase chance of losing ewes from pneumonia or starvation, especially older ewes.
3) An increase in light-weight lambs. In itself, light-weight lambs are not bad because you have fewer difficult births. However, some of these light lambs will be weak lambs as well and if weather conditions are rough, these lambs will be the first to die or will require more special care.
4) Milk production of the ewes will be reduced as will lamb gains.

Managing Pregnant Ewe Lambs

- Ewe lambs should be fed to gain 35 to 40 pounds during gestation.
- Feed for growth as well as pregnancy. Be especially careful not to cheat her on energy during late pregnancy.
- Remember her calcium and phosphorous requirements are higher than an older ewe. A free-choice mineral supplement containing calcium, phosphorous, and a trace-mineralized salt should be made available.
- Feed high quality feedstuffs to the ewe lambs. Avoid low quality roughage.
- Manage and feed the ewe lambs separately from the older ewes.
- Avoid mixing them with older ewes.

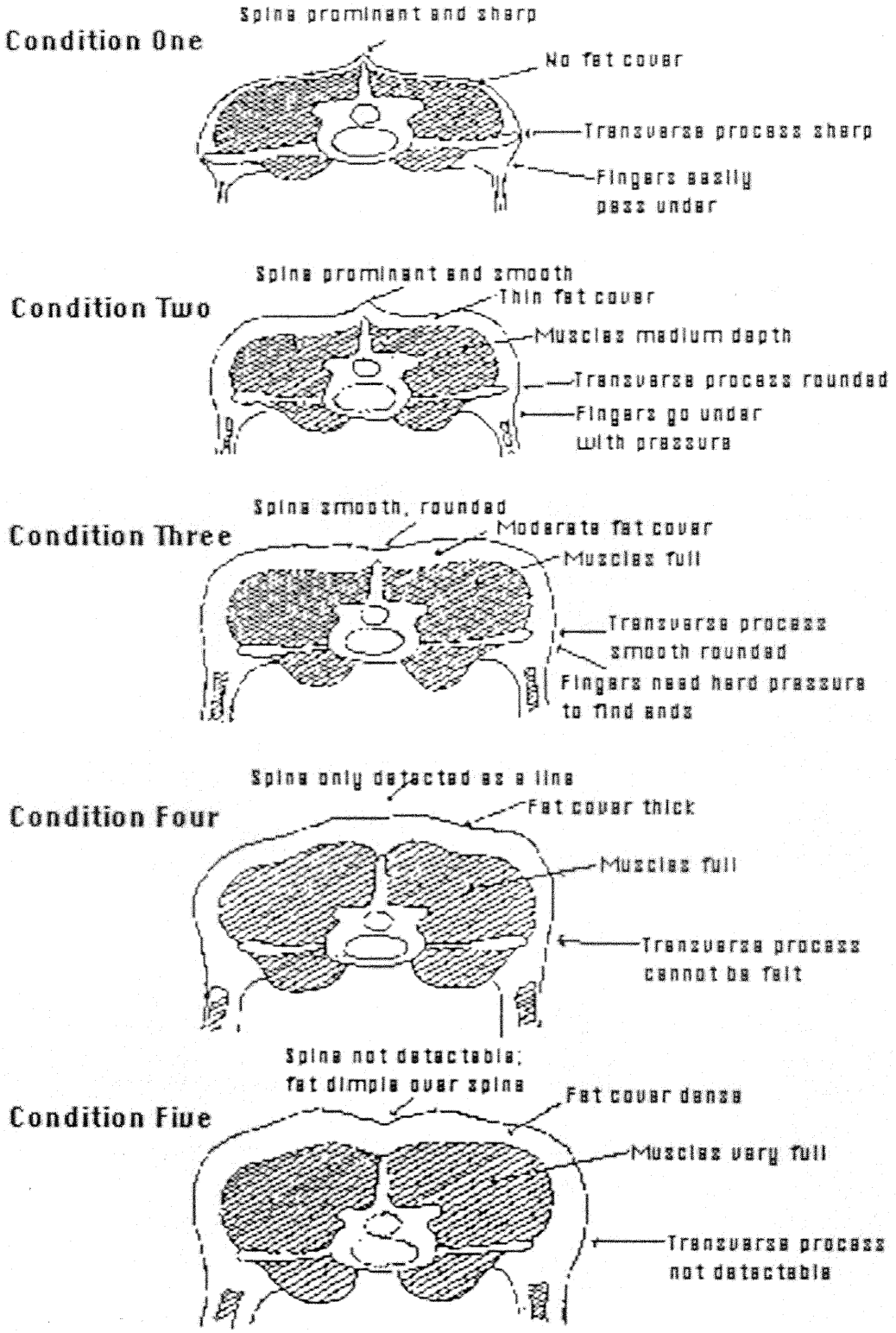

Figure 1. Body condition score examples

Supplementation table (180 lb ewe)[1]

Forage Analysis									
CP % of DM	TDN % of DM	Early[2] Gestation		Late[3] Gestation		Early[4] Lactation		Late[5] Lactation	
		Lbs SBM	Lbs Corn	Lbs SBM	Lbs Corn	Lbs SBM	Lbs Corn	Lbs SBM	Lbs Corn
11.2 & over	56 & over	-	-	-	.75	.5	2.5	.3	1.5
9.5 - 11.1	56 & over	-	-	.15	.75	.8	2.5	.45	1.5
	53 - 56	-	-	.15	.85	.8	2.7	.45	1.65
	50 - 53	-	-	.15	1.0	.8	2.9	.45	1.80
8.2 - 9.5	54 - 56	-	-	.25	.8	1.0	2.5	.55	1.5
	51 - 54	-	.2	.25	1.0	1.0	2.75	.55	1.75
	50 & under	-	.4	.25	1.2	1.0	3.0	.55	2.0
7.3 - 8.2	53 – 55	.1	-	.4	.8	1.1	2.5	.6	1.5
	51 – 53	.1	.2	.4	1.0	1.1	2.75	.6	1.75
	50 & under	.1	.4	.4	1.2	1.1	3.0	.6	2.0
Under 7.3	Under 48	.2 - .3	.5 – 1.0	.4 - .5	1.0 -1.5	1.2 -1.5	2.5 -3.5	.7 - .8	2.0 -3.0

[1] Recommendations are made on basis of 44 % soybean meal and ground shelled corn. Other supplements can be used to deliver the same amount of energy and protein.

[2] Dry ewes in the first 15 weeks

[3] Last 4 weeks of pregnancy (200% lambing rate expected).

[4] First 6-8 weeks of lactation suckling twins

[5] Last 4- 6 weeks suckling twins.