

# Summer Management of Replacement Ewe Lambs

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Successful development, breeding, and lambing of ewe lambs is one of most important tasks of the shepherd. Summer is a critical time for the development of replacement ewe lambs as they make the transition from weaning to members of the breeding flock. Proper management of replacement ewe lambs during this time is critical to their future productivity and profitability.

In most breeding systems, replacement ewe lambs will be generated from within the flock. Therefore, attention to maternal traits in the rams siring potential replacements is critical. Additionally, preference should be given to crossbred ewe lambs. Crossbred animals have two major advantages over straightbred animals: 1) Crossbred animals exhibit *heterosis* (hybrid vigor), and 2) Crossbred animals combine the strengths of the breeds used to form the cross (breed complementarity). Crossbred females are superior to straightbreds for reproductive performance due to advantages received from heterosis. Crossbred ewes exhibit significant advantages in fertility, prolificacy, and lamb survival resulting in advantages of up to 18% in pounds of lamb weaned per ewe exposed compared to straightbred ewes. From the existing pool of potential replacements, the following are important considerations for selection:

1. **Performance Record:** Ewe lambs should be retained from highly productive dams. Identifying these dams through a record-keeping system is therefore the first step in identifying potential replacements. Dams that lamb early in the lambing season, produce multiple births, and excel in pounds of lamb weaned (reflective of milking ability) are the best candidates to produce replacements. In the absence of such records, identifying maternal potential in ewe lambs based solely on visual appraisal is difficult.
2. **Age:** Preference should be given to ewe lambs born early in the lambing season (first 50 days). These ewe lambs are more likely to reach puberty earlier, breed, and lamb in a timely fashion as yearlings. Older ewe lambs are also more likely to reach target body weight by their first breeding season than young ewe lambs, and this coupled with age enhance their ability to breed as ewe lambs.
3. **Conformation/Soundness:** Structural soundness and mouth soundness are critical for longevity. Additionally, ewes with adequate body capacity and muscling, and those which tend to be “easy keepers” are preferred.

Nutrition from birth to first lambing has an influence on the lifetime productivity of the ewe. Ewe lambs should be in production by the time they are 12 to 14 months of age, as ewes that lamb first as yearlings rather than two year-olds have higher lifetime production. As a guide, ewe lambs should be targeted to reach 70% of their mature weight at breeding. Therefore, most ewe lambs should weigh 100-150 pounds at breeding. To accomplish this under most management scenarios, ewe lambs should be identified and then managed as a separate group from the mature breeding flock as well as market lambs.

Winter born ewe lambs generally have early rapid growth resulting from creep feeding and grain diets prior to forage availability. Winter born ewe lambs that will be kept for flock replacements

should be prevented from becoming excessively fat. Excess fat deposition has been shown to reduce future milk production. Development of these winter-born ewe lambs is best accomplished through pasture grazing and additional grain supplementation as needed to enhance gains.

Early and late spring born lambs traditionally are developed primarily through forage-based systems. Potential replacements should be identified and weaned so they may be properly grown and managed. These ewe lambs may need to receive supplemental grain (.5-1.5 lb./head/day) to achieve daily gains needed to reach target body weight prior to breeding. The amount of supplement needed will vary with forage quality and availability, as well as anticipated breeding date. As forage quality and availability declines during the summer, supplemental grain feeding may become necessary if breeding dates are early. Shearing of replacement ewes will enhance growth rates during the hot summer months. An effective deworming program is also crucial for optimum gains.

The following table presents nutrient requirements for growing ewe lambs. The table demonstrates the dramatic differences in requirements for ewe lambs at different body weights and stages of development (requirements assume 180 pound mature weight). Older, heavier ewe lambs grazing native pastures of adequate quality will require little supplementation to continue growth and maintain optimum body condition (condition score of 3 on 5-point scale). However, smaller ewe lambs have a higher requirement for both energy and protein. The highest quality pastures available should be utilized for development of these ewe lambs, and grain supplementation may be needed depending on forage quality, rainfall, and other factors. The anticipated breeding date is also important as ewe lambs to be exposed in early fall need to reach puberty and be on a positive plane of nutrition going into the breeding season. This is more difficult to accomplish for early fall breeding, as typically forage quality during late summer is compromised as a result of lower rainfall and high temperatures. Conversely, as fall arrives and environmental factors change, forage growth and forage quality typically improve. Therefore, close attention to forage quality and quantity, age and weight of ewe lambs, and desired breeding date need to be considered in the construction of a proper nutrition program for developing ewe lambs.

#### Daily Nutrient Requirements of Ewe Lambs (pre-breeding)<sup>a</sup>

Body Wt. (lb.)	Wt. gain or loss (lb.)	DM Intake/day (lb.)	Energy TDN (%)	Protein (%)
66	.50	2.6	65	16
88	.40	3.1	65	13
110	.26	3.3	58	9
132	.22	3.3	58	9

<sup>a</sup>Values adopted from National Research Council for Sheep, 6<sup>th</sup> Ed.