

Stocking Rates for Grazing Sugar Beet Tops

As an Agriculture Extension Educator, one of the main duties is answering various questions that are randomly asked by the clientele. An intriguing question that was received this fall was, “What is the stocking density for cattle grazing on sugar beet tops?” This question highlights the ritual task of removing crop residues from the field. Crop residue is the portion of a harvested crop that remains in the field after the marketable portion of that crop is removed. The most economical means of removing crop residue from the field is through grazing.

Unfortunately, there is no stocking density for grazing sugar beet tops in the research literature. Furthermore, grazing sugar beet tops are barely mentioned in the latest research because the advancements in defoliating technology have limited the usefulness of this crop residue, and a majority of farmers have moved away from this practice.

For those in Wyoming still following the practice of grazing sugar beet tops, here is a summary of the information that is available in the literature. Sugar beet tops can be grazed by either sheep or cattle with sheep making the best use. Colorado State University established that sugar beet tops are comparable to corn and sorghum residues as a supplemental feed source with all three having a digestible dry matter content of 52%. In terms of crude protein, sugar beet tops provide the best source of protein with 12.7%, followed by sorghum residue at 6.0% and cornstalk residue with 4.2%. The highest forage quality available for all crop residues is found immediately after harvesting and diminishes the longer it remains in the field.

Crop	% Crude Protein	% Digestible Dry Matter
Rye	3.0	3.1
Wheat	3.6	45
Barley	4.1	48
Oats	4.4	50
Corn	4.2	52
Sorghum	6.0	52
Sugar Beets	12.7	52

Table. Crop residue at plant maturity.

*Shanahan, J., D. Smith, T. Stanton, and B. Horn, 2004. Crop Residues for Livestock Feed. Colorado State University Extension. No. 0.551

The diminishing value of the feed is contrary to the needs of the livestock during this time of year (November and December), especially mid-gestation livestock. Crop residues are typically inadequate to provide much weight gain to young livestock and insufficient for mid-gestation livestock since their needs increase the closer they get to their last trimester. To assure livestock receive the necessary nutritional requirements, it is highly recommended that alfalfa hay be provided in their ration. When grazing crop residue in the field, this can be accomplished through feeding hay bales or allowing access to adjacent alfalfa fields. Even though sugar beet tops are relatively high in crude protein, they should not be the sole roughage source in the diet. Providing free choice hay provides more roughage in the diet while balancing nutrients such as calcium and phosphorus. One concern for grazing beet tops is the potential for livestock to choke on small beets that remain in the field after harvest. For further discussion on this topic or others please contact your local extension office.