Stockpiled Cool-Season Grasses for Winter Grazing

Stephen J. Herbert, Masoud Hashemi, Wen Xu, and Xiaobing Liu
Dept. of Plant and Soil Sciences

Pasture has long been accepted as a source of forage during the summer months, but stored winter feed is one of the grazier's largest expenses. In most years grazing provides forage for only 5 to 7 months. However, with proper management, stockpiled pasture can be a practical and inexpensive source of quality forage throughout the fall and winter months, and it would reduce the need for stored feed. Stockpiling is a management practice in which forage is accumulated on pasture in late summer until the forage growth has either slowed down significantly or stopped altogether. This stockpiled forage is then available for grazing throughout the fall and winter, until there is deep permanent snow cover. Stockpile grazing is chosen primarily to reduce feed and feeding costs. Animals which are on pasture later in the season also spread their own manure back onto the pasture, and thus save the cost of hauling and spreading the manure.

It is known that digestibility of stockpiled grasses will decline over winter, so this practice might best be suited to maintain sheep, dry cows, and cattle, not high producing animals. The quality and yield of the stockpiled forages can be controlled by the initiation date, which is the date the pasture starts to grow and accumulate for the cold months. Stockpile grazing can be incorporated into a rotational grazing system, however, it is important to plan for the stockpiled forage needs for winter.

Research in Wisconsin and Ontario has shown an early initiation date (mid July), when summer grazing ends and stockpiling begins, can provide a higher yield but quality will be lower. Delaying initiation until mid-late August will result in some loss in yield but a gain in quality. The decision as to when to initiate the stockpiling will depend on various factors, such as the requirements of the livestock grazing the forage, the expected time when the stockpiled forage is required, and the amount of pasture that can be set aside for stockpiling purposes. While perennial grasses such as timothy, tall fescue and bluegrass have been traditionally used for stockpile grazing, other forages can be used with correct management. This might include annual grasses such as triticale and the forage Brassica crops.

As part of a Speciality Crops grant from USDA through Mass. Dept. of Food and Agriculture an investigation into stockpiling cool-season grasses is being conducted at the University of Massachusetts Agronomy Research Farm in South Deerfield and with farm cooperators. Kentucky Bluegrass, Orchardgrass, Reed Canarygrass, Smooth Bromegrass, Tall Fescue, Timothy and Triticale are being compared in a replicated study. Date for ending the summer grazing period and initiation of the stockpile growth will be varied. Stockpiled grasses will be sampled for dry matter yield and quality on 3 dates. The first harvest will be taken just after the first killing frost (usually early October), the second harvest in December representing early winter, and the third harvest in March representing early spring prior to green-up of pasture.