

Extending the Forage Season by Stockpiling

If forage grows 6-7 months a year, how can cows graze for 8-9 months? Stockpiling has allowed many to do just that. Stockpiled forage is forage that is allowed to grow for use at a later time.

Extending the grazing season or reducing machine harvest of hay ground by using stockpiled forage has proved to be an economical way to feed dairy, beef and other livestock—even if only for another 3-6 weeks.

Most Common Stockpiling Practices are those that allow forage to accumulate during the last 70 or so days of the growing season just prior to frost dates. The forage that grows during this autumn period is leafy and high in nutritive value. In NE Iowa, this means the forage is cut or harvested around August 1 and the forage allowed to accumulate until frost dates.

Stockpiling research in southern Iowa and southwest Wisconsin shows that about one ton of dry matter per acre can be stockpiled over a 70 day period. Longer periods of stockpiling resulted in better forage yields, but forage digestibility and protein were greatly reduced.



Dairy Cows and Heifers grazing stockpiled forages to extend grazing or assist summer slump.

Strip Grazing extends forage quality more than continuous grazing. If given unrestricted access to a pasture or hayfield, livestock will selectively graze plant parts highest in digestibility and protein concentration first and greatly reduce forage uniformity over time. To increase uniformity of forage nutritive quality, erect temporary electric fencing which allow strip grazing.

Stockpiled hay stands or other crops can work for extending the grazing season as many alfalfa stands are grazed in latter crops around the country. Grazing-type alfalfa varieties are typically better able to withstand the hoof traffic. Other crops such as oats or winter rye after an early corn silage harvest have also been used along with other crop residues

(i.e. corn stalks). The winter rye can also provide spring forage for haying or grazing.

Some grass species stockpile better than others. For instance, tall timothy, smooth brome and quackgrass are most suitable for fall grazing. Late maturing orchardgrass is best used by December. Tall fescue, early maturing orchardgrass and reed canarygrass are best for late-winter grazing. Yields in a Wisconsin study showed Tall fescue and orchardgrass stockpiling the highest yields while smooth brome and quackgrass stockpile were the lowest. Other species such as reed canarygrass and timothy yielded in between.

Fertilization of Stockpiled Forage depends on legume content but can be a valuable for forages that are primarily grass or have a moderate mixture of legumes. Applying 40-50 lbs of nitrogen in early August can boost the forage dry matter 50% or one-half ton.

Extending the Forage Season can have disadvantages as well. Untimely rain, sleet or snow can lead to forage losses or reduction in nutritional value of stockpiled forages. Yields are typically able to be harvested in the October to December time frame. However, if stockpiled forage is to be used in the January to March time frame, yields tend to be reduced by half. The physical effect of snow on grazing stockpiled forages may not be as great as might be expected. While snow will restrict access to forage, cows are willing to graze through up to 9" of snow. On the other hand, as little as ¼ inch of ice on top of snow may totally halt grazing.

It is important to be flexible and be able to manage through adverse weather periods. Grazing on frozen soil causes minimal pasture damage, but when soil conditions are muddy it can lead to soil compaction and long-term damage to pasture or alfalfa sod.

Stockpiled areas should be carefully considered as to accessibility to supplemental feeding, water and livestock handling. On farms where corn crop residues are available for gleaning, weathering losses and nutritional considerations indicate corn-crop residue fields should be grazed first, followed by stockpiled forage. A sound supplemental feeding program is needed to meet the nutritional needs of various livestock classes eating stockpiled forages without excessive costs. Thoughtful planning of stockpiling forages can be an economical part of a livestock enterprise.

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