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Soybeans for Hay or Silage Rob Kallenbach, Craig Roberts, Bill Wiebold, Bill Johnson

When dry weather reduces potential yields from soybean or forages, many farmers consider harvesting drought-damaged soybean for hay or silage. Soybean is a good alternative or emergency source of livestock feed if a managed correctly.

Ideally, soybean hay should be harvested when 50% of the pods contain immature beans. In practice, soybean can be cut for forage at any stage from the time the pods start forming until beans are almost fully developed. Quality of soybean hay is quite variable, but typically soybean hay contains 16 to 19% crude protein and 50 to 55% TDN (total digestible nutrients) if harvested when 50% of the pods contain immature beans. Once leaf-drop begins, forage quality drops rapidly and soybean probably should not be harvested for forage.

A common problem with soybean hay is that immature seeds dry slowly in the pods and often mold. Crimping the hay with a mower conditioner will make the drying more even, but the pods are still the slowest drying part of the plant. Waiting to bale until the pods dry fully will reduce this problem, although more leaves will be lost. Chopping soybean for silage is an alternative that minimizes this problem.

Another problem with soybean hay is that it does not weather well when stored outside. Large round bales of soybean hay when left unprotected from rain will deteriorate much more rapidly than grassy hay. It is common to lose 50% of the forage to weathering if soybean hay is left unprotected. Storing soybean hay in a well-drained and covered stack or in a barn is imperative.

Often soybean hay is stemmy and may be refused by livestock. Typically, 10 to 20% of the soybean hay is wasted during feeding due to the coarse stems. If soybean is harvested for silage, or if soybean hay is chopped in a tub grinder, cattle will eat almost all of the forage. However, the stems contain high levels of fiber and low amounts of digestible nutrients. It may be more efficient to simply feed more hay and allow the cows to leave the stems.

Soybean plants treated with many herbicides CAN NOT be used for livestock feed. If in doubt, **read the label**. Examples of herbicides that prohibit feeding of soybean hay or livestock to livestock are: Assure II, Blazer, Canopy XL, Classic, Command, Fusilade, Lasso Micro-Tech, Linex, Lorox, Pinnacle, Pursuit, Scepter, Storm, and Tri-Scept. Roundup ready soybean varieties treated with Roundup Ultra can be harvested for hay or silage unless the Roundup Ultra was used as a harvest aid.