Disaster Recovery

Livestock

Soybeans for forage

If harvested early enough the soybean crop may be salvaged as forage. Soybean hay and silage are not new concepts. During the 12-year period, 1935 to 1946, an average of 3.3 million acres were harvested as soybean hay with an average yield of 1.3 tons per acre. Soybean hay was considered comparable to alfalfa, except for a 10 to 20 percent increase in wastage due to sorting of the stems.

More recent research has been conducted evaluating modern varieties, row spacing, harvest maturity, and plant density on soybean forage quality and yield. The effect of harvest stage on soybean forage quality and yield is shown in Table 1.

Soybean forage was comparable to alfalfa in protein and fiber concentration across maturity stages. As seeds develop, fat content of the forage increases. Dry matter yield increases with advancing stage of maturity. It is recommended, however, to harvest prior to significant seed development due to complications from the high fat content of the forage and increased waste potential due to stem development.

If soybeans must be harvested at later maturity stages, harvest as silage would be preferred to reduce waste. Limiting forage to no more than 50 percent of the diet is recommended to reduce negative effects of the high oil content. Do not harvest soybeans for forage after leaf loss begins, as much of the nutritional value of forage is lost at this stage. It is important to consider pesticide restrictions before harvesting soybeans as forage.

For more information, ask for *Soybean pesticides—are they a problem for silages or grazing*, Recovery-18, available at county extension offices.

Table 1. Effect of harvest stage on soybean yield and quality

Harvest Stage	Yield T/A (DM)	Crude Protein (%)	Acid Detergent Fiber (%)	Fat (%)
R1	1.07	20.1	28.2	-
R3	1.74	18.1	31.9	-
R5	2.54	18.2	33.7	0.9
R7	3.30	19.2	29.3	10.5

Hintz et al.(1992)

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