

Corn Stover in Missouri

Frequently Asked Questions

September 2012

What is corn stover?

Corn stover is a co-product that is produced from corn grain production. Corn stover consists of the husks, cobs, leaves and stalks that are left in fields after grain is harvested.

Can corn stover be fed to livestock?

Corn stover or cobs can be fed to beef cattle. One method is to temporarily fence off a corn field after harvest and release cattle into the field to “glean” off a portion of the residue. Generally, one acre of corn residue will provide 60 days of grazing for a 1,000 lb. animal. Corn stover can also be baled or accumulated like silage for further treatment to improve digestibility for cattle. This practice can be accomplished with existing hay or silage harvesting equipment.

What is the nutritional value of corn stover?

Corn stover and/or corn cobs rank low in protein and energy. Supplementation is usually necessary to meet the nutritional needs of cows and calves during fall and early winter when corn residues are normally fed.

Nutrient Content of Corn Residues

	Dry Matter (%)	Crude Protein (%DM)	Total Digestible Nutrients (%)
Corn stover	90	4.8	45%

How much tonnage of corn stover can I harvest per acre?

Corn stover yields will vary with seed variety, soil and climatic conditions. Volume of corn stover is generally based on a dry weight of corn grain to residue ratio as 1:1. Each 35-45 bushels (56 pounds/bushel with 15.5% moisture) of corn grain per acre will produce approximately one ton of corn stover per acre. Missouri's five-year corn yield average (140 bushels per acre) would represent approximately 3.33 dry tons per acre of corn stover.

How much does it cost to harvest corn stover?

Harvesting costs depend upon field operations used. At a minimum, harvest consists simply of direct baling the stover left in the swath behind the combine with no raking (approximately 30 percent of stover collected). Alternatively, harvest may consist of cutting, raking, baling and net wrapping (approximately 50 percent of stover collected). Iowa custom rates for 2012 indicate: cornstalk baling averages \$12.00 per bale, raking averages \$6.20 per acre, mowing averages \$10.80 per acre. Total stover harvest typically averages approximately \$20 per bale. In addition, corn producer may seek to be reimbursed for the nutrients removed. Iowa 2011 data indicates \$11.81 worth of nutrients per ton of dry matter of stover are removed at grain harvest.

What price can I expect to pay or receive for one ton of stover?

Currently, prices for baled corn stover are \$60 to \$100 per ton (\$25 to \$45 per large round bale) due to the 2012 drought. Future price expectations are \$45 to \$75 per ton for delivered corn stover.

If drought-stressed stover is high in nitrates, at what percentage is it dangerous to feed?

Before feeding drought-stressed stover, have it tested for nitrate levels. If nitrates are less than .25 percent, then stover is safe for all animals. At .25-.50 percent, limit to half of your ration. From .50-1.5 percent, you should limit to a quarter of the ration and do not feed pregnant animals. Anything higher, do not feed.

Sources:

University of Missouri Extension, “Feasibility of Corn Stover in Missouri” (<http://agebb.missouri.edu/commag/resources/CornStoverReport.pdf>).

University of Missouri Extension, “Drought-Related Issues in Forage, Silage and Baleage” (<http://extension.missouri.edu/p/agw1017>).