

53. BALING CORN STALKS

Lab tests showed a higher level of protein in our ranch hay than I thought we needed for the nutritional needs of our cow herd. Since we wanted to increase the carrying capacity of the ranch and expand our use of artificial insemination (AI) and calve earlier (all of which would require more feed), we went looking for a source of lower cost feed to stretch our supply of high-quality hay.

About ten miles east of us, in the *Buckeye* and *Waverly* areas, corn was being grown for grain and the stalks were going unused. To start with, I made an experimental deal with the Ackerman Farm to pay for corn stalks by the ton if we could figure out how to bale them. It is hard for me to imagine that we were among the first to bale corn stalks at scale, but the late 70s, early 80s was when the machinery came along that made it possible, so I suppose we were.

Forty years ago, tillage equipment still had some difficulty dealing with post-harvest organic matter left on the surface.¹ Some farmers used flail shredders to whack up standing corn stalks so they could be more easily turned under. I bought a used shredder, which Kent and I modified by welding up some baffle wings so that the stream of shredded stalks spewing out the back were directed into a windrow. It worked slick.

The idea was to bale the corn stalks with one of those new round balers. Kent got Dan and Larry Peterson to try their baler (Chapter 29), but the stalks just kept slipping on the belts, so we gave up on that.

However, really new-fangled big square balers were just coming into use for putting up hay. The brothers who had been hauling ear corn for us from Fort Morgan had just gotten one of these contraptions and were eager to try it out on our corn stalk project – by golly, it worked! We hauled several semi loads of big square corn stalk bales to the ranch that first fall.

The big square bales weighed about 800 pounds each, but they were easy to move with a loader tractor



This modern center-discharge shredder is pretty much a dead ringer for the machine that Kent and I cobbled together in the early 80s for windrowing corn stalks. (Loftness Manufacturing)

and stacked efficiently for transport and storage (opposite).

We would place a few bales in a corral pen where cows were being dry lotted with their calves for AI breeding (Chapter 19). The cows passed the time between feedings munching on the stalks while their calves could bed down on the leftovers around the edge of the bale.

For a few years, we enjoyed an abundance of cheap feed and bedding. Then it caught on and the price went up. That's the problem with ingenuity – mostly all you can hope for is a jump start.

Although definite advances have been made in adapting round balers for use with corn stalks, the current literature continues to describe the practice as problematic. For instance, with muddy conditions



The first large square baler was introduced by Hesston Corp. in 1978.



Round Corn Stalk Bales - Iowa State University

at harvest time, corn stalks can be quite dirty (and wet and moldy). The dirt is hard on equipment, not to mention cows' teeth. And then there is controversy...

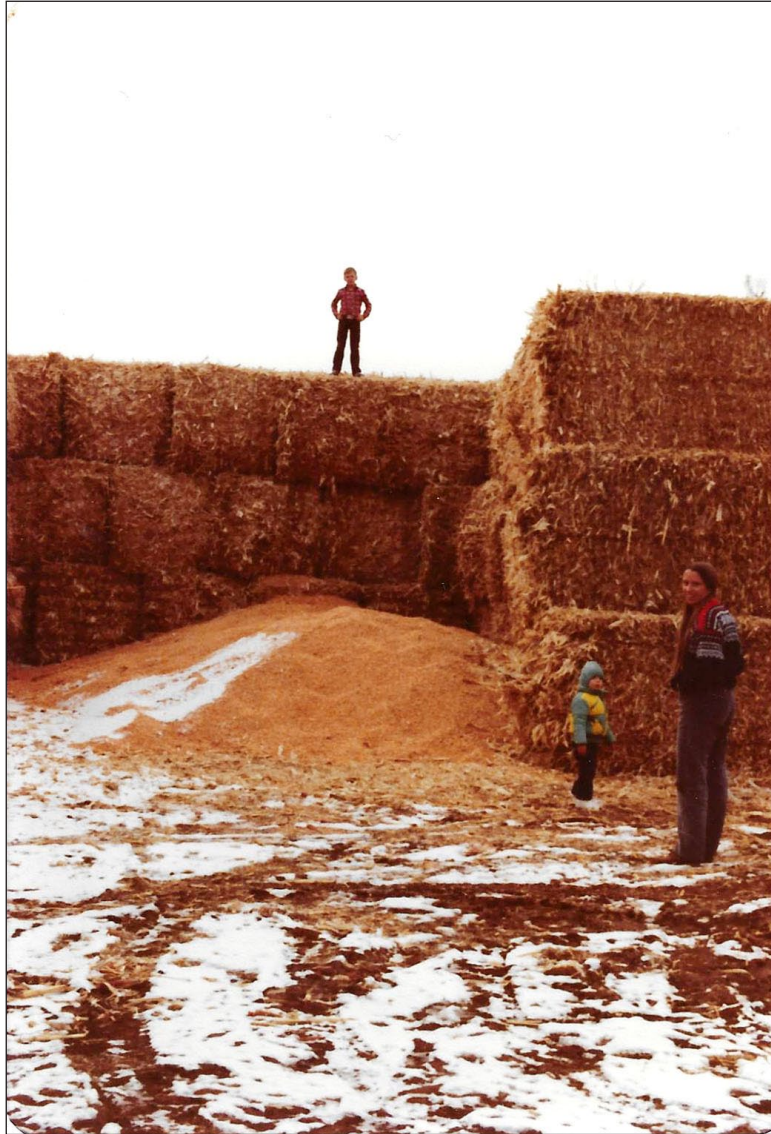
Corn stalks contribute organic matter back to the soil. When a farmer harvests the stalks and sells them, his soil becomes a little poorer. Today, in addition to being harvested for feed, corn stalks are starting to be used for cellulosic ethanol. Many in and around agriculture are viewing this trend with growing concern.

Of course, in our case the ranch was the beneficiary of this particular organic matter transfer – the corn stalks contributed to the manure piles in our corrals, which we then spread on our hay meadows to fertilize² and build up the soil.

Our nearly trouble-free experience with baling corn stalks back at the beginning remains more the exception than the rule. The biggest factor in our favor was the dry fall and winter climate along the Front Range. Dry weather keeps corn stalks cleaner and drier making them easier to windrow and bale than in the more humid corn country east of here.

¹ The picturesque, old-fashioned practice of burning wheat stubble is a testimony to this problem. Fortunately, modern tillage equipment now allows most farmers to abandon that source of air pollution and loss of organic matter.

² (more about manure later)



Using large square bales as a temporary grain bin (that's our son, Arthur, up top) - 1982.