

Silos sentinels of Corn Belt since late 19th century

Farm silos, an iconic symbol of the Corn Belt, have long flummoxed city and suburban folk. Frustrated parents clueless as to the purpose of these "farmer towers" often tell their children that they hold water or shelled corn for livestock. Or more imaginative mothers and fathers have been known to describe them as specially designed barns for giraffes. And one wonders how many adolescent boys over these many years have found the silo's phallic shape an inexhaustible source of sophomoric wisecracking is anyone's guess.

Children's stories and teenage guffaws aside, silos were built to hold fermented livestock feed known as ensilage, or silage. One of the great and venerable problems in animal husbandry was the difficulty of storing, or "carrying over," enough fodder from the growing season into the long winter months. In the late 19th century, hay was mostly stored loose, so even the more cavernous hay mows in the largest barns could only support a limited number of stock.

Silos, on the other hand, are designed to hold densely packed, nutritious fodder, and in doing so give the farmer the ability to house, feed, breed and sell many more animals than possible with cut and dried grasses. Silage is created when corn, legumes and other "green fodder," such as alfalfa, clover and soybeans, are finely chopped and blown into the silo. Corn silage, for instance, includes the entire ear—kernels, cob, husk and all (and, if necessary, even the stalks). The silage "pile" is then tightly compressed and covered, meaning that although the feed retains moisture, the lack of oxygen slows decay and spoilage.

If properly packed and stored, silage can last several seasons or more. Although "low-oxygen" silos are often associated with dairy farming, in McLean County and this stretch of the Corn Belt, they were often used for beef cattle and general purpose grain farming as well.

The first round silos to gain widespread popularity were constructed of wood, usually with vertical planking (or staves) fitted tightly together. The staves were then reinforced with steel hoops (image something looking like an oversized barrel). In the late 1870s, Dr. Manly Miles of the University of Illinois played an instrumental role encouraging silo construction and the use of silage as livestock feed.

In 1886, C.M. Payne of Normal had erected what's believed to be one of the first—if not the first—tower silos in the area. The following year Levi and Isaiah Dillon purchased Payne's silo for use in their trans-Atlantic business importing French draft horses (called Normans back then and Percherons today). "Whether farmers generally will adopt the system or not is a question," The Pantagraph noted in 1887 of silos and silage. "It is a new idea in this vicinity and farmers are conservative people."

Some of the misconceptions held by farmers involving silage included the belief that the feed would lead to more difficult calving, or that the quality of milk would suffer. Neither proved true.

It's likely the C.M. Payne silo was made of wood, though manufacturers and farmers were already beginning to experiment with other building materials. Wood silos, though relatively cheap and easy to construct, could be troublesome. It was difficult to make the walls airtight, and in addition to losses from rot and spoilage, wood silos were also fire hazard and, when empty, tended to topple over in heavy winds.

By the first two decades of the 20th century, most silos were being constructed of far more durable materials. Brick and drain tile manufacturers, for example, were finding a new market for both their fired brick and glazed hollow tile.

Another breakthrough came with quality concrete in the form of Portland cement. The most popular style of cement silo borrowed a similar construction method from wood stave towers. Grooves along the edge bound the cement staves together, making for a formidable shell. And much like wood silos, steel hoops or wire served to reinforce the entire structure.

Silos were a topic of great interest at the December 1909 gathering of the McLean County Farmers' Institute. Lyle Johnston, institute president, told the gathering that he had yet to encounter a farmer who, once having tested silage on beef cattle, chose to abandon the practice.

For a brief period beginning in 1912, the Illinois Silo Company manufactured wood silos at the south end of Bloomington, between Lincoln and Lafayette streets (roughly where Behr Iron and Metal is located today). This factory manufactured wood stave silos, and had its own Illinois Traction System rail spur and loading platform. The company had ambitious plans to manufacture some 1,000 to 1,500 silos for the 1912 season, and as such had ordered some one million board feet of fir and redwood lumber from the Pacific Coast.

There were other silo manufacturers in the area, including John Wilcox & Sons in McLean, which manufactured high-grade building brick and clay drain tile before expanding its product line to include curved silo brick.

By the 1940s, thermos-like silos constructed of fiberglass bonded to curved sheets of steel, which appeared under the brand name Harvestore, came onto the market. These truly airtight structures allow for atmospheric change by way of bag inside the top of silo, which inflates or deflates as needed to maintain equalized pressure. Harvestores also featured augers to unload silage from the bottom. Such automatic unloaders, noted Loran Berg in a study of silos, "replaced the chore of the daily climb into the silo to pitch silage down to the ground below."

Manufactured by the A.O. Smith Corp. of Beloit, Wis., one of the first Harvestore units in the area was erected in the fall of 1949 on the G.H. and Lowell Dueringer farm in the Ford County community of Melvin.

Today, many dairy and beef operators make use of bag silos. These are tubes of triple-layer plastic sheeting, ranging eight to twelve feet in diameter and as long as 200 feet, which are laid length-wise on the ground near pasture or feed lot. Bag silos are extremely cost efficient, but lack the durability and presence of the old tower silos, which mostly stand empty, reminders of a bygone era.