Feed Mill and Elevator

ILLINOIS GRAIN HANDLER BUILDS A NEW MILL PLUS AN ADJACENT ELEVATOR TO SERVICE IT

Dearwester Grain Services Inc. Nutrition Services Inc. Golden, IL • 217-696-4461

Founded: 1996

Grain storage: 3.3 million bushels at five locations

Feed capacity: 105 tph at two locations

Products: Finished beef, hog, and dairy feeds

Annual sales: \$45-50 million **Number of employees at Carthage:** 12

Key personnel at Carthage:

- Matt Dearwester, president/CEO
- Steve Kassing, mill manager
- Vivian Harris, office manager
- Rick Dormire, transportation mgr.

Supplier List

Aeration fans.. Brock Grain Systems
Bin sweepsSioux Steel Co.
Bucket elevators.. Schlagel Inc., GSI
Bulk weigh scaleInterSystems
Catwalk..... LeMar Industries Corp.
CleanersCPM Rosskamp
Champion

Contractor/millwright (feed mill)..
EBM Construction Inc.

Contractor/millwright (elevator) ...

Trone Construction Inc.
Control system....Easy Automation Inc.
Conveyors (drag)... Schlagel Inc., GSI
Conveyors (screw) ... EBM Mfg. Inc.
Distributor.......Schlagel Inc.
Elevator buckets Maxi-Lift Inc.
Gates/divertersSchlagel Inc.
Grain temperature system... Tri-States
Grain Conditioning Inc.
Level indicators.... BinMaster Level
Controls

MixerScott Equipment Co.
Motion sensors...4B Components Ltd.
Roller millsRMS Roller-Grinder
Samplers Gamet Mfg. Inc.
SpoutingEBM Mfg. Inc.

Tower support system...Warrior Mfg. LLC, LeMar Industries Corp. Truck scale ... Cardinal Scale Mfg. Co.



New Dearwester Grain Services 1.26-million-bushel grain elevator (left) and Nutrition Services 80-tpy feed mill (right) on the eastern edge of Carthage, IL. Photos by Ed Zdrojewski.

The story of Dearwester Grain Services Inc. and Nutrition Services Inc. in and around Carthage, IL can be a little complicated, but both are family-owned businesses with Matt Dearwester as president and CEO.

He and his wife, Andrea, founded Dearwester

Grain Services as a grain handling firm in

Matt Dearwester

InterSystems bulkweigher keeps track of feed mill-bound corn for owners of a local livestock production operation that is the Nutrition Services mill's primary customer.





1996 after purchasing a private grain elevator about 30 miles to the south, in Golden, IL. Seven years later, his business purchased a small 165,000-tpy feed mill from Cargill Animal

Nutrition on the west side of Carthage and founded Nutrition Services as another family-owned business.

"We were maxed out at that location as of 2014," Matt Dearwester comments. "That 165,000-ton capacity was running 24/7, and our demand was already at 190,000."

He looked at expanding there but decided instead to build a new facility at the east edge of town to include both an 80-tph steel feed mill operated by Nutrition Services plus a 1.26-million-bushel all-steel elevator operated by Dearwester Services.

The mill was constructed first, with groundbreaking in June 2014 and the first batch of feed produced that October. Construction on the elevator started shortly after that, and it was ready in time for the 2015 harvest.

Grain Elevator

Dearwester awarded the contract for the elevator to Trone Construction Co., Rushville, IL (217-322-6126). "They've done all of my grain systems work over the years," he says.

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Scott four-ton mixer produces batches on an average of three minutes per batch.



Control room features an Easy Automation batching system, which also is used to run a new grain elevator next door.

Among the other major contractors on the project:

- Michael Welsh, Morton, IL (309-266-5461), served as consulting structural engineer on the elevator.
- Rob's Refrigeration and Electric, Camp Point, IL (217-696-4339), served as electrical contractor on both the elevator and feed mill.
- Easy Automation Inc., Welcome, MN (507-728-8214), supplied the control system for both facilities.
- Kerker Construction Inc., Augusta, IL (217-392-2548), performed site preparation work.
- Reiser Construction Co., Pleasant Plains, IL (217-626-1783), poured the concrete foundations.

The bulk of the storage at the elevator consists of two Brock 630,000-bushel corrugated steel tanks standing 105 feet in diameter and 84 feet tall at the eaves.

The tanks have flat floors, outside stiffeners, Daay bin paddle sweeps,

BinMaster Smart Bob level indicators, and 24-cable TSGC grain temperature monitoring systems. A set of four 40-hp Brock centrifugal fans supply 1/10 cfm per bushel of aeration through in-floor ducting.

Incoming trucks deposit corn into a 550-bushel mechanical receiving pit that feeds a 20,000-bph GSI leg outfitted with 20x8 Maxi-Lift TigerTuff buckets on a 22-inch Goodyear belt. The leg lifts corn into a Schlagel 4-hole rotary distributor, which in turn, can send it out to storage via 20,000-bph overhead GSI drag conveyors or a pair of Chief 30,000-bushel hopper tanks to await transport into the mill.

Grain bound for the mill is run through an InterSystems bulk weigh loadout scale to track weights for PSM.

Feed Mill

Dearwester awarded the construction contract for the feed mill to EBM Construction Co., Norfolk, NE (800-356-9782). He notes that this is the first greenfield job EBM has done for the company, although the contractor had done some automation work at the older Carthage mill. For the new job, Dearwester says he liked EBM's proposed design concepts.

The steel structure includes 24 ingredient bins from KC Mfg. holding just under 800 tons of material and 18 loadout bins holding up to 392 tons of mash feed. Feed at the new mill is not pelleted at this point, though there is space to add a pellet tower if demand develops in the future, Dearwester says.

Incoming corn is ground to a uniform particle size on a pair of RMS roller mills with a capacity of 50 tph each.

Feed is mixed in a Scott 4-ton ribbontype mixer operating at an average three minutes per batch. Minor ingredients can be added into the mixer from a custom-designed 10-tote minor ingredient system and from a 24-bin Easy Automation microingredient system. Fat and liquids also can be added at the mixer.

Trucks are loaded with finished bulk feed while parked on a 120-foot Cardinal scale through seven stationary overhead spouts.

Ed Zdrojewski, editor