

Moving out of Town

MINNESOTA COOP CHOOSES TO BUILD NEW ELEVATOR SINCE OLD ONE IS LANDLOCKED



Farmward Cooperative's new 2.4-million-bushel branch elevator three miles west of Clements, MN along a busy U.S. highway. Aerial photo by JH Photography, Spencer, IA.



Farmward Cooperative Morgan, MN • 507-249-3196

Founded: 2017
Storage capacity: 26.3 million bushels in tanks and flat storage and 9 million bushels in temporary storage at nine locations
Annual volume: 43 million bushels
Annual grain sales: \$182 million
Number of members: 2,200
Number of employees: 150
Crops handled: Corn, soybeans, hard red spring wheat
Services: Grain handling and merchandising, feed, agronomy, energy, crop insurance, financial services

Key personnel:
 • Dave Stuk, CEO

- Craig Herbrink, senior vice president, grain and feed
- Dennis Schreier, senior vice president, agronomy and energy
- Dan Christensen, Clements location manager

Supplier List

Aeration fans..... GSI, Chief Agri
Bin sweep..... GSI
Bucket elevators..... Schlagel Inc.
Catwalks Warrior Mfg. LLC
Concrete GBI
Contractor SMA LLC
Control system..... Control Stuff Inc
Conveyors Schlagel Inc.
Distributor..... Schlagel Inc.
Elevator buckets Tapco Inc.
Electrical contractor....Potter Electric
Engineering VAA LLC

ExcavationDiversified Excavation
Grain dryer..Zimmerman Grain Dryers
Grain temperature monitoring Tri-States Grain Conditioning Inc.
Hazard monitoring..CMC Industrial Electronics
Level indicators.....Siemens
Loadout tank..... Meridian
Millwright..... SMA LLC
Receiving building..Behlen Mfg. Co.
Steel storage..... GSI
Steel tank erection Cross Country Construction
Tarp Raven Industries Inc.
Temporary pile conveyors Straightline Mfg.
Tower support system..... Warrior Mfg. LLC
Truck probeGamet Mfg. Inc.
Truck scale..... Rice Lake Weighing Systems Inc.

When it came time to upgrade its grain elevator in Clements, MN in 2017, the newly-formed Farmward Cooperative had little choice than to look outside of town. (Farmward was formed in 2017 as the result of a merger between Harvest Land Cooperative and Coop Country Farmers Elevator.)

That decision resulted in a new 2.4-million-bushel, \$7 million country elevator (507-380-2445), that opened for business in September, just in time for the 2017 harvest.

“Our existing elevator in Clements was getting a little outdated, especially for handling semis,” says Location Manager Dan Christensen, who had been with the former Harvest Land Cooperative for four years. (Prior to that, he spent more than 15 years at a CHS facility in Mankato, MN.)

“We looked at ways to remodel the



Location Manager Dan Christensen

existing elevator, but we were landlocked in town. We were forced to move to a country site.”

Cooperative managers talked with numerous landowners in the area and had soil borings taken before purchasing a site three miles west of Clements along U.S. Highway 71, a heavily-traveled but well-maintained two-lane. (Clements is strictly a truck house; there are no rail lines in the area.)

Groundbreaking took place in April, with SMA, LLC, Monticello, MN (888-259-9220), as design-build contractor and millwright.

“They had done projects for us in the past, and they were willing to guarantee completion by harvest,” Christensen says. “Also, they had built a facility in Harrold, SD that was almost identical



Rice Lake inbound-outbound scale in foreground and facility office and Gamet Apollo grain probe farther back. Ground level photos by Ed Zdrojewski.

to what we were looking for.”

Among the other contractors on site:

- VAA, LLC, Plymouth, MN (763-559-9100), performed structural engineering.
- Potter Electric, Montevideo, MN (320-269-6613), served as electrical contractor.
- Control Stuff Inc, Cologne, MN (952-466-2175), supplied the automation systems.
- Diversified Excavation, Alexandria, MN (320-334-2006), performed site work.
- Bloemke Construction, Morgan, MN (507-249-3135), installed roads on the site.

Grain Storage

Upright storage at the new elevator consists of three GSI corrugated steel tanks, one holding 400,000 bushels for potential long-term corn or soybean storage and two at 220,000 bushels for holding wet grain and other commodities.

The big tanks stand 78 feet in diameter, 91 feet tall at the eaves, and 111 feet tall at the peaks. They have outside stiffeners, flat floors, 12-inch GSIX-Series bin sweeps, 14-cable TSGC grain temperature monitoring systems, and Siemens radar-type level indicators. A pair of GSI 30-hp centrifugal fans per tank supply 1/10 cfm per bushel worth of aeration.

The wet tank stands 60 feet in diameter, 88 feet tall at the eave, and 104 feet tall at the peak. It is equipped similarly to the larger tanks, but with only 11 temperature cables and 20-hp centrifugal

fans to achieve 1/10 cfm per bushel.

In addition to the upright storage, the facility has a 1.5-million-bushel temporary storage pile. The 350-foot-diameter SMA-designed system has no sidewalls but has a tarp from Raven Industries to hold grain in place atop an ag lime floor. The pile is aerated with twelve 10-hp Chief axial fans. It is filled by an open belt ▶



Grain handling equipment visible from left: 4,000-bph Zimmerman grain dryer, Schlagel 5,000-bph wet and dry legs and 20,000-bph receiving legs, all enclosed in a Warrior tower with switchback stairs; one Meridian 4,000-bushel surge tank; and enclosed receiving pit.

conveyor from Straightline Mfg.

Grain Handling

Incoming grain trucks are weighed on an 80-foot Rice Lake pit-type in-bound-outbound scale and sampled by a Gamet Apollo probe. The facility currently has no scale automation system, but the coop plans to install one from Kahler Automation in the near future.

Trucks proceed to one of two 1,000-bph receiving pits. Each pit feeds a

Schlagel 20,000-bph receiving leg equipped with a single row of Tapco 20x8 heavy-duty buckets mounted on a 22-inch belt.

The legs deposit grain into a 6-hole Schlagel swing-type double distributor. From there, grain is transported via overhead Schlagel 20,000-bph drag conveyors to upright storage or via a 25,000-bph drag to the dryer.

Storage tanks have sidedraws on the northside. Otherwise, they empty onto be-

low-ground 10,000-bph Schlagel reclaim drags running back to the receiving legs. The distributor deposits grain via gravity spout into a Meridian 4,000-bushel surge tank for truck loading.

The facility also includes a 4,000-bph Zimmerman grain dryer fired by propane and serviced by 5,000-bph Schlagel wet and dry legs. Christensen says the dryer operated around the clock five days a week during the 2017 harvest.

Ed Zdrojewski, editor