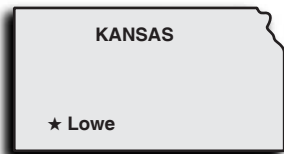


Clearing a Chokepoint

KANSAS COOP ADDS NEARLY 1 MILLION BUSHEL OF UPRIGHT STORAGE



Garden City Cooperative
Garden City, KS • 620-275-6161

Founded: 1919
Storage capacity: 28.2 million bushels at 20 locations
Annual volume: 39 million bushels
Annual revenues: \$250 million
Number of members: 2,100
Number of employees: 150
Crops handled: Hard red winter wheat, sorghum, corn, soybeans, sunflowers
Services: Grain handling and merchandising, fertilizer, chemicals, seed, crop scouting, precision agriculture (including three drones)

Key personnel at Lowe:

- Ken Jameson, vice president-grain
- Grant Geyer, manager
- Jose Lopez, superintendent

Supplier List

Aeration fans.....Rolfes@Boone
Bucket elevator..... InterSystems
Catwalks..... HABC0 Inc.
Concrete tank builder...McPherson
Concrete Storage Systems
Contractor..... HABC0 Inc.
Conveyors..... InterSystems
Distributor.. Hayes & Stolz Ind. Mfg.
Co. Inc.
Elevator buckets..... Maxi-Lift Inc.
Grain dryer..... Zimmerman Grain
Dryers
Grain temperature system.....M&L
Equipment
Manlift.....Sidney Mfg. Co.
Millwright..... HABC0 Inc.



Six new jumpform concrete tanks and a new leg and distributor at far right were added in 2014 at Garden City Cooperative's Lowe elevator northwest of Garden City, KS. Ground level photos by Ed Zdrojewski.

A long row of concrete storage tanks in southwest Kansas just got longer.

The original 365,000-bushel slipform concrete structure near the tiny crossroads of Lowe, KS (620-277-2230), now owned by Garden City Cooperative, was built in 1950. Nearly 50 years later, in 1999, the coop added 10 McPherson jumpform concrete tanks for nearly 1 million bushels of additional storage.

In 2014, it was time to expand again. The coop added another six jumpform concrete tanks for an additional 912,000 bushels of storage.

"That territory has good irrigation, with water available from the Ogallala Aquifer," says Ken Jameson, vice president of Garden City's grain division. "The chokepoint had become (receiving) leg capacity. We were having to ship grain out to other locations during the fall harvest."

In addition, he says, as the new Food Safety Modernization Act (FSMA) is implemented, grain quality will become an increasingly critical issue. It's a lot easier to maintain grain quality in upright storage than in a temporary pile.

Garden City hired HABC0 Inc., Salina, KS (785-823-0440), as general contractor on the project and McPherson Concrete Storage Systems, McPherson, KS (800-999-8151), to build the six new jumpform concrete tanks.



Tank cone bottoms are emptied via augers onto a 10,000-bph drag conveyor running back to existing equipment.



Long-distance view of the Lowe elevator, which holds 2.26 million bushels.

Work on the \$5 million project began in the spring of 2014, and it was completed by December.

Jumpform Storage

All six tanks stand 120 feet tall, even with the rest of the jumpform tanks. Four of the six are 44 feet in diameter holding 166,000 bushels each, one is 40 feet in diameter holding 137,000 bushels, and the sixth is 36 feet in diameter holding 110,000 bushels.

All of the tanks are equipped with concrete cone floors on a 37-1/2-degree slope and emptied using augers fabricated by HABCO.

The tanks also have six-cable M&L

Equipment grain temperature monitoring systems and five 25-hp Rolfes@Boone centrifugal fans each that deliver 1/8.3 cfm per bushel of aeration through



Vice President-Grain Ken Jameson.

in-floor ducting.

Near the west end of the new tanks, HABCO installed a new 500-bushel mechanical receiving pit. The pit feeds a new 20,000-bph InterSystems leg equipped with 20x8 Maxi-Lift CC-MAX low-profile buckets mounted on a 22-inch belt.

The leg delivers grain to a six-hole Hayes & Stolz rotary distributor. From there, grain runs out to storage via a set of 20,000-bph overhead InterSystems drag conveyors.

The new tanks empty into an above-ground 10,000-bph InterSystems drag conveyor running back to the new leg.

Ed Zdrojewski, editor