

Crop Shift

CENTRAL SOUTH DAKOTA ELEVATOR ADDS STORAGE, HANDLING, DRYING CAPACITY

SOUTH DAKOTA

Highmore ★

South Dakota Wheat Growers Association
Aberdeen, SD • 605-225-5500

Founded: 1923

Storage capacity: 56.4 million bushels at 28 locations

Annual volume: 160 million bushels

Total sales: \$1.3 billion

Number of members: 5,300

Number of employees: 420

Crops handled: Corn, soybeans, hard red winter and spring wheat, sorghum, sunflowers, millet, oats
Services: Grain handling and merchandising, agronomy

Key personnel at Highmore:

- Roger Price, vice president-operations
- Robert Fluke, area manager
- Todd Yeager, location manager
- Sara Rheinboldt, bookkeeper
- Angela Harris, scale operator
- Matt Englund, grain originator
- Ray Kusser, safety/operations
- Duane Nielsen, operations
- Dave Galbraith, operations
- Ken Carlson, operations
- Mike Wentlandt, operations
- Travis Crowghost, operations

Supplier List

- Aeration fans**.....The GSI Group
- Bin sweeps**.....The GSI Group
- Catwalk**.....Warrior Mfg. LLC
- Cleaner**.....Intersystems
- Contractor**..Thorstad Construction
- Conveyors**..... The GSI Group, Hi Roller Conveyors
- Distributors**.....Schlagel Inc.
- Elevator buckets**..... Maxi-Lift Inc.
- Engineering**..... VAA LLC
- Grain dryer**..... Zimmerman Grain Dryers
- Grain temperature system**.... TSGC
- Motion sensors**..... 4B Components
- Steel storage**.....The GSI Group
- Tower support system**.... Warrior Mfg.



The South Dakota Wheat Growers grain elevator near Highmore, SD, with two new 730,000-bushel storage tanks at left and a new 230,000-bushel wet tank at center. Photos by Ed Zdrojewski.

Challenged with a semi-arid climate and short growing season, the plains around Highmore, SD were suited primarily for growing winter and spring wheat until recently. In the last five years, however, area producers have been switching a large amount of acreage to corn and soybeans.

“It’s been driven by soil conservation practices that conserve moisture and genetic improvements that boost corn and soybean yields in this climate,” says Roger Price, vice president-operations for South Dakota Wheat Growers, the large regional cooperative with 28 elevators across the Dakotas.

“We were at a point where we could dump maybe five hours during harvest,” says Todd Yeager, location manager at Highmore (605-852-3250). “Then we’d have to shut down the receiving pits and dry grain for 24 hours.”

The cooperative’s response at Highmore in 2010 was to add nearly 1.5 million bushels of new storage, with related upgrades to handling capacity, and add a new 10,000-bph grain dryer.

The project at Highmore is part of a much larger \$78 million Connection to Tomorrow initiative, which upgraded nine elevators in 2010 and began construction on two new sites, to be completed in spring 2011. (See page 40.)

At Highmore, South Dakota Wheat Grow-



From left: Robert Fluke, area manager; Roger Price, vice president-operations; and Todd Yeager, Highmore location manager.

ers hired Thorstad Construction, Maynard, MN (320-367-2159), as general contractor and millwright. “Thorstad is a reputable contractor, and they have a long history with South Dakota Wheat Growers,” says Price, who notes that Thorstad also is the general contractor at three other locations in the initiative (see page 40).

VAA LLC, Plymouth, MN (800-205-9691), performed engineering work on the project, and Hope Electric, Hope, ND (701-945-2460), supplied the electrical and automation systems. Dagle Steel Construction Inc., Florence, SD (605-886-3796), erected the new steel tanks.

Work at Highmore began in April, and work was nearly complete and the new stor-

age and dryer in operation when *Grain Journal* visited early in November.

Storage and Handling

Thorstand constructed two 730,000-bushel GSI corrugated steel tanks standing 105 feet tall and 92 feet in diameter.

In addition, a third tank holding 230,000 bushels and standing 60 in diameter and 84 feet tall, dedicated to wet grain, was added.

The big tanks are outfitted with outside stiffeners, flat bottoms, 14-inch GSI sweep augers, and 24-cable TSGC grain temperature monitoring systems. A set of six 40-hp GSI centrifugal fans per tank supply up to 1/4 cfm per bushel of air, allowing the cooperative to store higher moisture corn than otherwise would be possible.

In addition, the tanks have reinforced roofs and are set up to be retrofitted in the next few months with GSI Hi-Safe cable tie-offs for fall protection.

To provide service to the new tanks, construction crews took an existing Nord-Sen leg and extended it upward by 40 feet using GSI bucket elevator components.

The upgraded leg has a capacity of 40,000-bph and is outfitted with two rows of Maxi-Lift 18x8 CC-MAX buckets mounted on a 40-inch Goodyear Pathfinder belt.

The leg delivers grain to a series of GSI 40,000-bph overhead drag conveyors running out to the new storage. The operator has the option of running a portion of the grain stream through an Intersystems 15,000-bph screener prior to sending it to storage.

The new tanks empty onto a series of above-ground 50,000-bph Hi Roller Hi-Life enclosed belt conveyors running back to the upgraded leg.

New Dryer

In addition to the storage and handling equipment, South Dakota Wheat Growers installed a new propane-fired 10,000-bph Zimmerman tower dryer, the largest commercial grain dryer the supplier currently makes.

Yeager comments that the dryer hasn't been tested out so far, since 2010-harvest corn came in at 14-16% moisture and did not require drying.

Ed Zdrojewski, editor



New 10,000-bph Zimmerman tower dryer, adjacent to a pair of 40,000-bph legs, one of which was extended upward by 40 feet, in order to elevator grain high enough to reach new storage.

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