

MINN-DAK beats beet schedule

COMPANY

MINN-DAK Farmers Cooperative,
Wahpeton, ND

OPERATION

Dating back to 1974, this sugar beet-growing and sugar production operation now encompasses some 500 farms on 115,000 acres of land as well as defoliating, cleaning, and receiving stations where beets are transported with International and Freightliner trucks with flatbed trailers.



CHALLENGE: Carry more weight and handle the company's unique operation and temperature extremes.

Operating 24 hours a day, seven days a week for up to nine months of the year, MINN-DAK Farmers Cooperative can produce up to 3.5 million lbs. of sugar each day. Drivers deliver up to 340 loads of sugar beets used in that production daily and an average of 420 tons of the sweet veggie every hour.

MINN-DAK once used 45-ft. trailers to haul 80,000-lb. loads, but then Minnesota passed an agricultural commodities permit allowing up to 97,000-lb. loads. MINN-DAK needed trailers that would handle its operation and the sometimes very cold temperatures that this part of the country—Minnesota and North Dakota—can experience.

SOLUTION: The farming cooperative turned to East MMX for the 19 specially designed flatbed trailers it uses in its operation. The East trailers are 53-footers and needed to be able to haul the additional weight and keep the sugar beets fresh on the trip.

The trailers, which the cooperative purchased through Wallwork Truck Center in Bismarck, ND, were equipped with

metal cages to hold the sugar beets when they're shipped from stockpiles to the sugar-production factory. The trailers have special metal tubes in them to circulate air through the load to help keep the beets cool as they're transported. MINN-DAK Drivers typically haul seven loads per 12-hour shift when transporting beets from the company's farthest-out stockpiles, but that can increase up to 13 loads per shift if they're hauling from the nearer farms.

"Everyone involved in the MINN-DAK Farmers Cooperative—from farmer to trucker and all of the processing plant personnel—work hard at their task of supplying the world with a trusted, delicious sugar product," the company stated in a video about its operations. When drivers are hauling their loads, the trucks can see very serious temperature extremes. "One day it may be minus 30 degrees; the next it may be up to 40 degrees," noted Darrell Oscarson, transportation supervisor at MINN-DAK. To handle that, the East trailers were equipped with mercury switches in enclosed boxes to control the tipping procedure when they deliver beets.

The switch setup saves two to three minutes per truckload, according to the

company, which adds up given the many loads delivered and constant operation. The automatic lifts are incorporated on the trailers' fourth axles. Drivers bring the loaded trailers to a wet hopper. The tipping process puts a lot of weight onto axle sides, so MINN-DAK added more gussets over the axles to help alleviate that fatigue and give the trailers a longer service life. The gussets run from the trailers' decks to their frames to provide more rigidity as the heavy beet loads are tipped off.

To manage the heavy loads, the East trailers were equipped with ConMet hubs and a 25,000-lb. Intraax suspension from Hendrickson. With the MINN-DAK trailers' special build, "the first time [one] rolled out, it worked like a charm," Oscarson said.

After the beets are tipped off the trailers, dirt and foreign objects are removed, and raw sugar is extracted via a multi-stage process, including being sliced, boiled, and turned into a syrup-like juice from which sugar crystals are spun off. At peak operations, the company can produce a ton of sugar per minute. Completing the process, MINN-DAK ships the sugar to its food manufacturer customers in bulk or packaged throughout North America. **T**