

# Field Operations Automated with Remote Level Monitoring

**Applications:**  
Liquid Fertilizer

**Market:**  
Agriculture

## Flying V Grain, LLC.

Flying V Grain is based out of Sharon Springs, Kansas and provides a wide range of products from animal feed to a variety of agriculture chemicals. In order to feed America, the Company is committed to maintaining a consistent inventory for their customers.



### Challenge

Flying V Grain was looking for an efficient way to reduce the cost of their field operations while maintaining a safe and environmentally sound business operation, including sustaining a reliable workflow. A loss of inventory leads to farmers and ranchers not meeting their production requirements to maintain a profit. Flying V Grain did not monitor their fertilizer tank, so the inventory was unknown. The major concerns are reducing unnecessary travel to check fluid levels, improving reliability of the operation, and understanding what is happening at the site when no-one is present.

Physically travelling to the tank to check the level with a sight gauge can be tedious. Extreme weather conditions can cause risks when travelling to the tank. If the operator is rushed, the system checks may be missed or overlooked, causing unsanitary overflows and loss of profits.

“We chose TankScan because it is a well-known company and we continue to have confidence in their products”, said Preston Smith, Operations Manager.

## Solution

In 2023, Flying V Grain chose to optimize their operations by installing the TankScan TSR Non-contact Radar tank monitoring system. Other sensor technologies such as submersible pressure or micro impulse radar were not a good fit as the liquid fertilizer would plug up or stick to the sensor causing erratic and unreliable readings. By utilizing the state-of-the art non-contact radar sensor Flying V Grain will have a reliable measurement with requires no maintenance or guess work if the sensor is correct.

The tank levels are viewed from field operator's cell phone or from a PC at a remote office. The system is cost effective due to its use of an embedded and fully integrated non-contact radar sensor, battery power, and internal and fully integrated cellular modem. The user is provided with accurate readings to devices he already owns, understands, and supports.

## Results

With TankScan Flying V Grain has enjoyed many benefits including::

- Improved visibility and tracking of their bulk fluid inventory
- Increased confidence and reduced environmental risk with automated notifications
- Improved safety by reducing travel in hazardous weather conditions
- Easy data access resulting in a decrease in time and stress to monitor fertilizer inventories
- Improved reliability of their field operations

**"The install process was easy. It has saved us time and eliminated unnecessary travel",**  
said Preston, Operations Manager.

