

# RELIABLE CONNECTIVITY FOR REMOTE GRAIN STORE MONITORING

## FARMEX

*Farmex is a UK manufacturer of ventilation and environmental control components, with over 40 years of expertise in agricultural systems. While its core business lies in pig housing ventilation, the company has expanded into diversification products such as grain store monitoring and control.*

Grain storage requires careful temperature and humidity management to maintain quality, prevent pest and fungal damage, and maximise sale value.

Farmex provides the hardware and control systems that give farmers real-time insight into these conditions, reducing compliance risk and protecting crop value.

### The Challenge

Monitoring grain stores requires reliable data connectivity.

Remote sensors track variables such as temperature and humidity, transmitting information back to a base unit, which must then be accessed off-site.



Simon Leach,  
Sales & Technical  
Engineer,  
Farmex

The difficulty is that many grain stores are located in isolated areas, often without Wi-Fi or wired broadband.

Running cables across farmyards is rarely practical, and diagnosing Wi-Fi issues can be time-consuming. Farmex needed a localised, resilient connectivity option that could support both data monitoring and occasional remote adjustments to controller settings.

Simon Leach, Sales & Technical Engineer, Farmex, explains:

***“Some of these stores can hold tens of thousands of tonnes of grain. Walking the site manually to check every lance is exhausting. Remote access is essential, but many of our sites simply don’t have broadband nearby.”***

### The Spitfire Solution

To overcome this challenge, Spitfire supplied a SIM-based connectivity package on a pay per MB basis, alongside a Teltonika router and antenna.

This provided a secure 4G connection directly at the grain store, independent of farm broadband.

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- SIM-based access ensured data could be transmitted reliably, even in remote locations without Wi-Fi or WAN cabling i.e. fixed line connections.
- Router and antenna provided robust local connectivity, reducing downtime and avoiding the limitations of consumer Wi-Fi.
- Ease of diagnosis: if issues occur, on-site staff can simply check the router or WAN connections, rather than troubleshooting Wi-Fi signals.

### Business Impact

The new setup has given Farmex confidence to trial and expand its grain store monitoring service:

- Receive information: Farmers can view sensor data and receive alerts
- Improved reliability: Connectivity failures now relate mainly to local mechanical issues (such as unplugged routers), not network infrastructure.
- Deployment flexibility: Farmex can offer the service in locations where broadband is unavailable or impractical.

Simon Leach, expands:

***“The support and service from Spitfire has been absolutely spot-on. The only issues we’ve seen have been on-site factors, not with the connectivity itself.”***



### Looking Ahead

Grain storage has been the opening application for Farmex’s diversification into new agricultural monitoring.

With secure, independent connectivity in place, the company sees potential to support additional farm use cases such as CCTV and wider environmental monitoring – all in locations where traditional broadband is lacking.

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