On a dairy farm...

farmers must monitor and manage the health of their cattle. A cow's activity level (steps they take, time spent resting or ruminating, etc.) can indicate the overall health of each animal.

How could you track the activity of every individual milk cow on a dairy farm?

On a wheat farm...

harvest is a critical season. An entire team of machine operators often work around the clock to get the grain from the field to the processing facilities.

How could you track an entire fleet of combines, carts, and trucks to be sure there is always a truck waiting to be filled with grain?

On a corn farm...

thousands of acres of land need to be monitored throughout the growing season. Farmers need to monitor weed growth, check for signs of pests, and manage the moisture level of the soil.

How could one farmer monitor large amounts of land regularly?

On every type of farm...

weather impacts decisions every single day. Hay should not be cut before a rain storm, animals require change in management practices for extreme cold or heat, seeds should not be planted before danger of frost has passed, etc.

How could a farmer obtain precise and detailed weather forecasts for their farm?

On every type of farm…

Farmers need to know current prices for the commodities they are producing.

How could a farmer find out the current market price for their crop or livestock?

On a crop farm...

pests can destroy or diminish a crop. Harmful pests need to be identified early and an appropriate method needs to be used to kill them.

How could a farmer quickly identify a pest in their field along with a method to eradicate it?

On a crop farm…

soil nutrients need to be monitored throughout the plant's lifecycle. Additional nutrients (fertilizer) needs to be applied in precise amounts and locations.

How could a farmer monitor soil nutrient levels and know how to apply fertilizer to their fields when needed?