



How new technology and real time feedback can improve transport biosecurity

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Protocol® Biosecurity Technology Overview

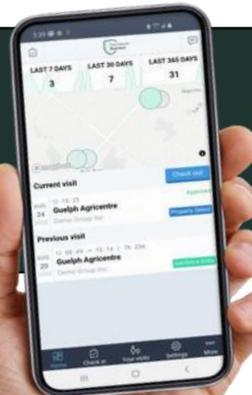
3 Controlled Entry based on biosecurity protocols



2 Transport biosecurity monitoring with breach alerts



1 Health status and downtime management for large systems





2 Truck and Trailer Biosecurity



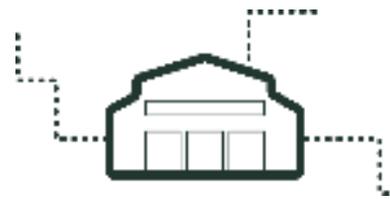
**RECORD REAL-TIME
TRAILER MOVEMENT**



**INTEGRATE
MULTIPLE TRUCK
GPS SYSTEMS**



**CONFIGURE TO YOUR
BIOSECURITY
POLICIES**



**CREATE TRACE-OUT
REPORTS & MAPS**



**BIOSECURITY
BREACH
ALERTS**

Explainer video: <https://www.youtube.com/watch?v=cGqUTwRxBMo>



Saskatchewan Biosecurity Technology Research Project*



CAAIN  **RCAIA**

*In collaboration with Saskatchewan Pork with funding from Canadian Agri-food Automation and Intelligence Network



Data Analysis

- **Total Visits: 3172**
- **Phase 1 visits: 1438 (Apr 1 –Sept 1, 2022)**
- **Phase 2 visits: 1734 (Dec 1-May 1, 2023)**
- **Average daily visits: 10.3 visits**
- **Most Frequented locations: Feed Mill & Truck Wash**



Saskatchewan Biosecurity Technology Research Project*

Goal: To determine the biosecurity technology for movement recording that performs the best

Device types tested:

- Taillight powered devices
- Battery powered devices
- GPS devices using 3G
- Long Range Local Area (LoRa LAN) Network devices





Research Project Observations

GPS Vehicle Devices not Equal

- Not all devices are created equal!
- Of the technologies tested, three GPS devices (two wired or powered, one fully battery powered) showed reliable performance





Two Ways to Connect Trucks & Trailers to Farm Health Guardian



GPS link with existing fleet tracking systems via API



Use of FHG's GPS devices for trailers and other vehicles



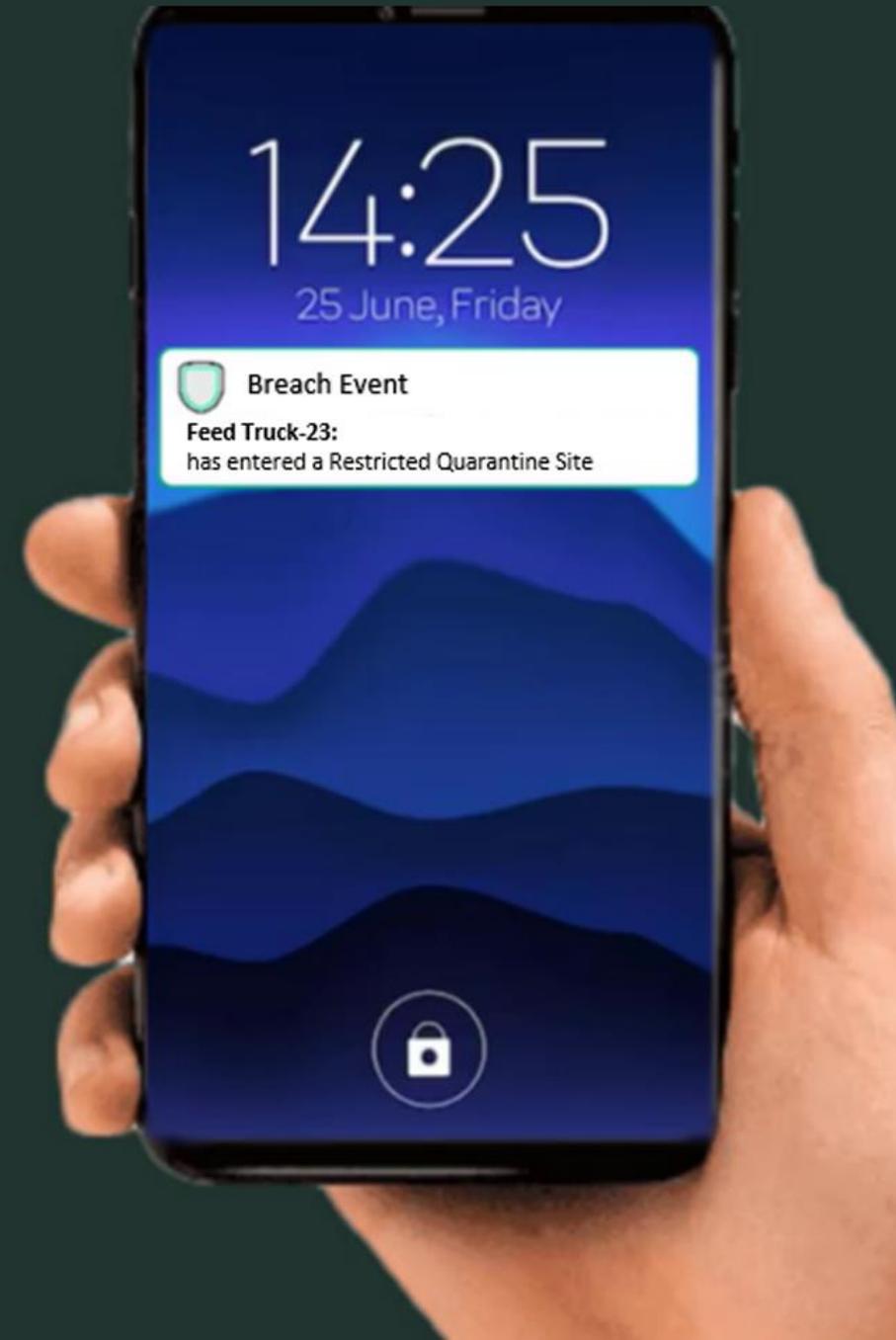


Biosecurity Breach Alerts - Truck & Trailer

Software can be configured to monitor your biosecurity protocols

Protocol examples:

- Truck wash completion
- Dedicated trailers assigned specific flow/group of properties
- Pyramid / Visit Order
- Trailer downtime
- More to come...





Transport Biosecurity: MidWest Key Findings and Success Stories

A

Truck and trailer biosecurity breaches happen more often than we think

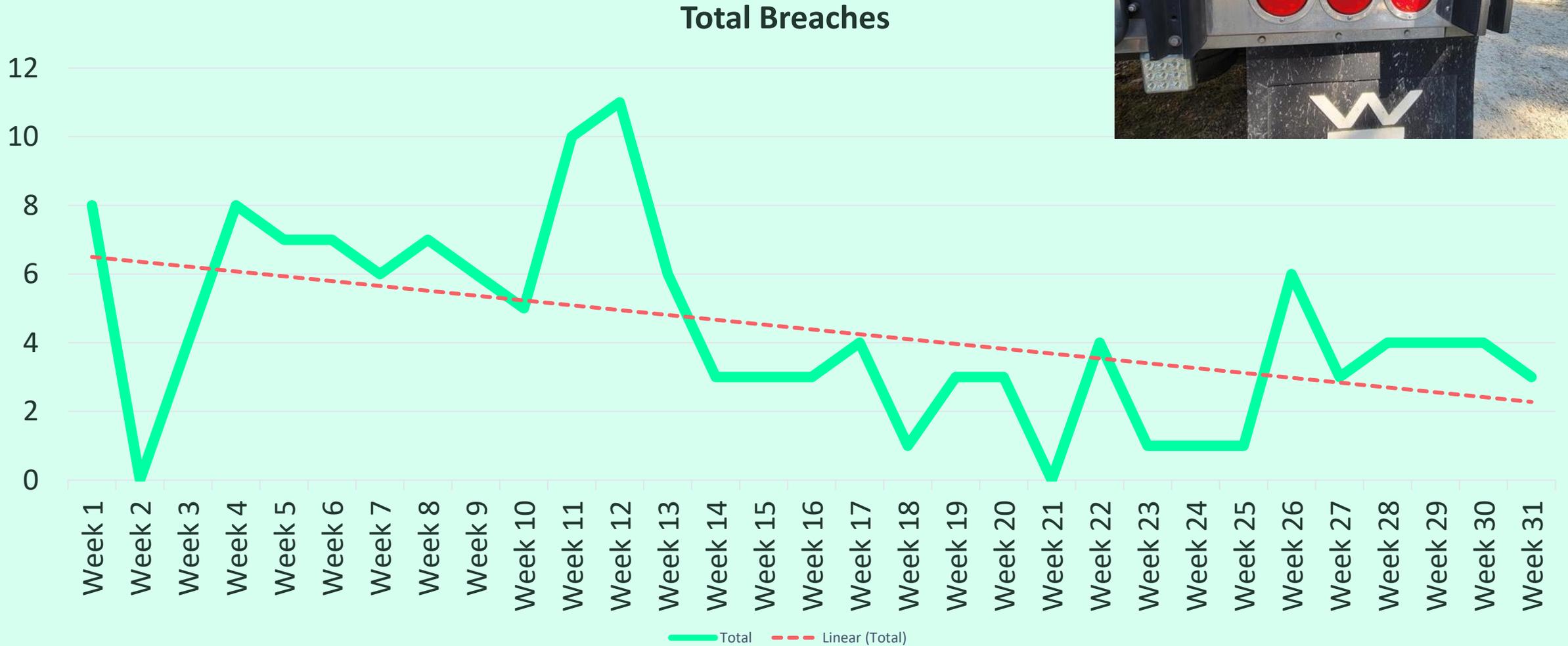
B

Real-time feedback greatly improves biosecurity compliance

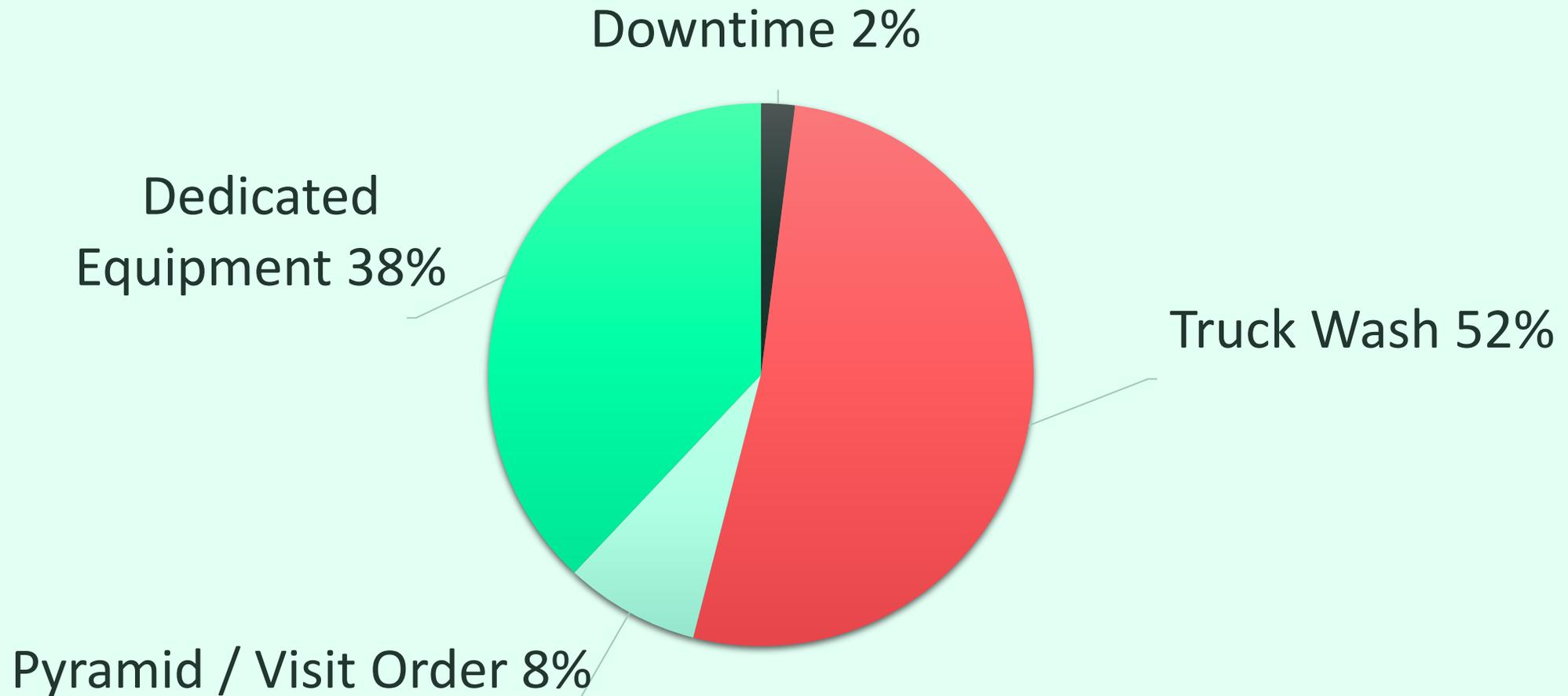


Breaches Per Week

Example 1



Transport Biosecurity Breach Types 2024



Conclusions

1. Not all GPS devices are created equal for use in agricultural settings
2. Truck and trailer biosecurity breaches happen more often than we think
3. Measure biosecurity so you can manage it
4. Real-time feedback greatly improves biosecurity compliance



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