

## Pit & Lagoon Monitoring

### *Automated Measurement and Alert System*

Measure pits and lagoons, generate reports and view historical trends without the use of manpower. Monitor waste volume to optimize fleet requirements and scheduling of application sites. Get text and email alerts and track historical data using the PitView™ feature in FeedView.®



# LET PITVIEW™ HELP YOUR P&L

A pit and lagoon monitoring system can save you time while complying with state and federal reporting and regulations, helping you increase profits and minimize losses.



## Keep a Clean Record

No animal feeding operation wants to risk a harmful spill or breach of their manure management system. Automating the monitoring and reporting of waste levels makes it easier to prepare the documentation required by regulators. Measurement history easily exports to reports that can be used for compliance with state or federal agencies.



## Manage Application Sites

Automatically monitor pit and lagoon levels, and set alerts to know when it is time to empty pits. PitView™ lets you plan application sites and schedule trucks in advance. You will know how much waste is available, so you can arrange for the equipment and manpower to get the job done.



## Measurement without Manpower

Once the level sensors are installed, the system takes over. No one needs to go down to the pits or out to the lagoon to take a measurement. Monitoring takes place every day of the week, regardless of staffing. If an alert is triggered, personnel are immediately notified via text or email.



## Monitor Waste and Feed in One App

Adding the PitView™ feature to the Feed-View® web application allows you to monitor levels in feed bins, pits, and lagoons, all in one easy-to-use program. Simply access the internet, log in using your username and password, and view all waste levels on your smartphone, tablet, or desktop computer.



## How It Works

*The CNCR-110 compact radar level sensor sends a signal that measures the distance from the sensor to the surface of the waste material. The measurement is transmitted to software using a cellular modem or long range wireless transceiver to a gateway, if the facility has an Ethernet connection. Data is accessed from the internet by logging into the secure FeedView® web application using a personal username and password.*

# View Pit, Lagoon, & Feed Levels

Monitor pits and lagoons using the PitView™ feature in BinMaster's FeedView® web application. FeedView® is a comprehensive feed management solution that uses laser level sensors to measure levels in feed bins, generate alerts, and create feed orders. PitView™ can be used along with the feed management system or as a standalone option.

## Satisfy Regulatory Reporting Requirements

It is easy to download data and create reports to comply with state and federal regulations. Generating interim reports for internal use allows users to view trends and detect abnormal activity.

## Set Your Measurement Frequency

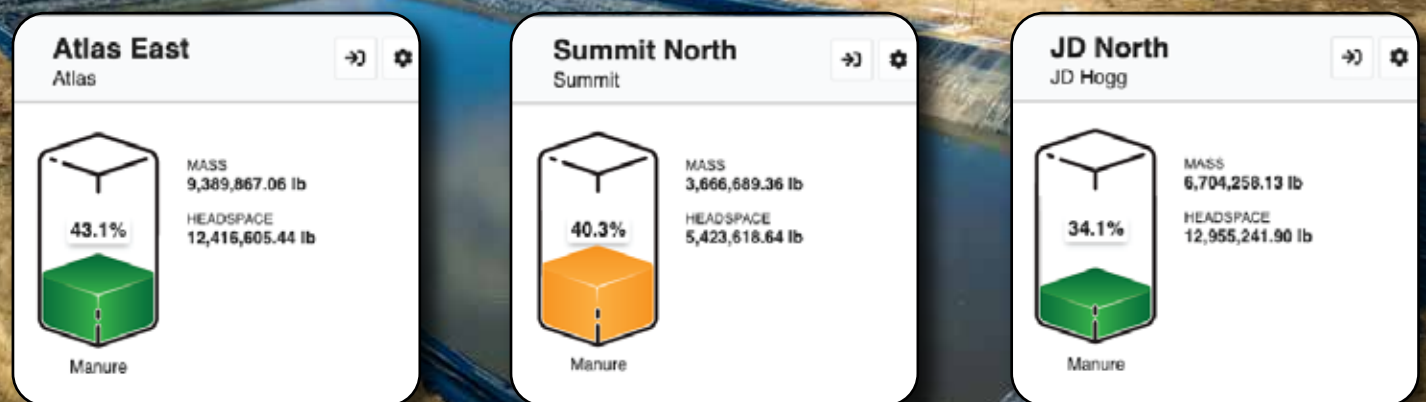
Wired sensors, whether in a pit or lagoon, are commonly set to take measurements once per hour to once per day. Solar-powered sensors sometimes used in lagoon applications are typically programmed to measure once per day.

## Customize Alerts to Your Operation

The software allows users to set multiple alerts to help manage pit and lagoon levels. Alerts are sent via text or email, so personnel can respond promptly if levels are detected in the danger zone.

## Easy, Affordable, and Scalable

Pit and lagoon monitoring requires a one-time purchase of the sensor and mounting equipment. Once installed, there is an annual monitoring fee for each sensor. The software allows you to inspect multiple pits, lagoons, or sites using a dashboard that consolidates measurement information in one place.



# Non-Contact Radar is Rugged & Reliable

*Radar level sensors perform reliably in challenging environments, aggressive materials, and under harsh weather conditions.*

The CNCR-110 is a rugged, flood-proof non-contact radar designed for measuring liquids at distances up to 26 feet. The sensor is enclosed in an IP 66/68 enclosure making it dust and weather resistant to ensure maintenance-free operation in animal waste.

## Simple Sensor Installation

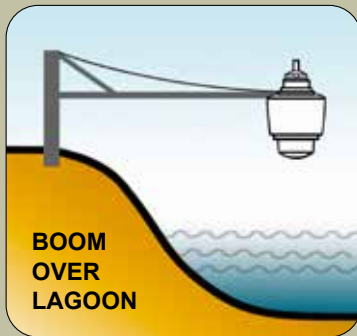
The sensor mounts in a threaded 1½ inch NPS bracket mount by simply screwing the sensor into place. The two-wire CNCR sensors are easily wired

to an existing power supply. Alternatively, a solar-powered option is available for lagoons in remote locations where electrical service is not available.

## Accuracy You Can Rely On

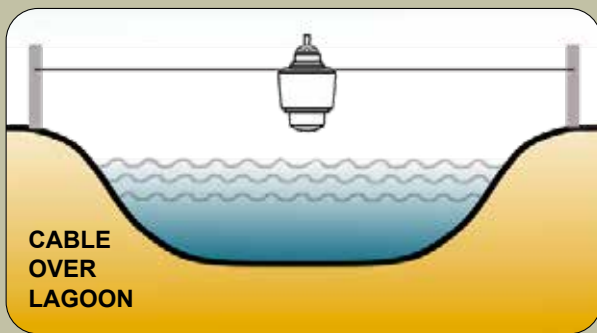
The sensor measures with accuracy of 0.2 inches in the static pit environment where sensor mounting is fixed. If the lagoon is choppy or wind bounces the sensor, the soft-ware will average multiple measurements.

## SENSOR MOUNTING



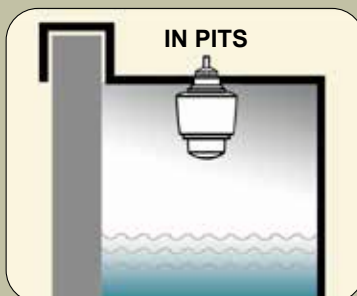
### Over Lagoons

Posts are mounted on either side of the lagoon with the sensor mounted on a bracket attached to taut wires. Alternatively, a boom arm is attached to a post. The sensor is mounted in a bracket at the end of the boom arm and swings over the lagoon and locks into place.



### Sensor Specifications

- Measuring Range: 26' (8 m)
- Accuracy: ± 0.2" (± 5 mm)
- Mounting: 1½" NPT
- Ambient temperature: -40° to 140°F (-40 to 60°C)
- Process temperature: -40° to 140°F (-40 to 60°C)
- Process pressure: -1 to 3 bar (-14.5 to +43.51 psi)
- Housing Material: PVDF Plastic



### In Pits

A mounting bracket secures to the pit wall using screws. The sensor installs through the 1½ inch opening in the bracket and is aimed at a 90-degree angle to the waste in the pit. The CNCR-110 wires to a power supply and is ready for operation.

PV-0521-BLC