Centaur®

Internet-of-Crops®

Wireless AI Grain Monitoring

CentaurOne™

for Bins up to 50,000 Bushels

LESS HARDWARE

One Arrow Sensor Only

Fewer components
Faster DIY installation

MORE INTELLIGENCE

Powered by CFD Digital Twin Technology and Chiron™ AI.

LOWER COST

Reduced upfront costs and ongoing maintenance.

WIRELESS SIMPLE SETUP

Simple setup in minutes.

AI-POWERED PREDICTIONS

Real-time insights powered by AI.

PROTECT GRAIN QUALITY

Detect issues early. Protect your grain.

LOWER COST HIGHER VALUE

Reduce costs. Increase value.

THAT'S CENTAUR ONE™.

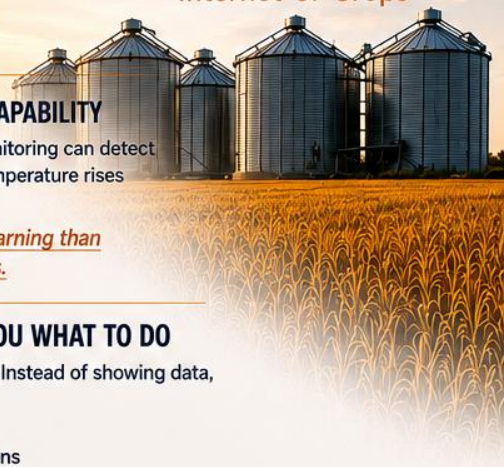
Brad Taylor
Midwest Sales Director
217 418 9662
brad@centaur.ag

SMARTER GRAIN MANAGEMENT
ANYTIME.
ANYWHERE.

Why CentaurOne™ ?

Centaur
Internet-of-Crops®

Smarter monitoring. Earlier insights. Better outcomes.



1 AFFORDABLE ENTRY COST

Traditional cable systems often cost:

- Hardware: $5,000–$8,000+
- Installation: $1,000–$3,000+

A Centaur One system can provide monitoring and management capability at a fraction of that cost.

2 NO CABLES INSIDE THE BIN

Traditional systems require:

- Hanging sensor cables
- Installation during bin construction or empty-bin access
- Potential cable damage

Centaur One uses a single Arrow sensor combined with CFD modeling.

3 EASIER INSTALLATION (DIY)

- 1 single Arrow sensor
- PLC fan control
- Gateway/cellular connection in a few hours rather than coordinating a specialized cable installation crew.

4 MONITORS THE ENTIRE BIN, NOT JUST SENSOR LOCATIONS

A traditional cable system only measures where sensors physically exist. Centaur One combines:

Sensor data | Weather | Fan runtime | Grain properties

CFD Digital Twin calculations to create thousands of virtual monitoring points.

5 REMOTE FAN CONTROL

Instead of driving to every bin:

- Turn fans on/off from the app.
- Follow AI recommendations.

6 CO_2 EARLY-WARNING CAPABILITY

The Arrow sensor's CO_2 monitoring can detect biological activity before temperature rises become obvious.

This can provide earlier warning than temperature-only systems.

7 CHIRON™ AI TELLS YOU WHAT TO DO

No need to interpret charts. Instead of showing data, Chiron can provide:

- Risk alerts
- Aeration recommendations
- Grain condition summaries
- Predicted storage life

8 REMOTE MONITORING

You can check your bins:

- At home
- During harvest
- On vacation
- During winter without climbing bins.

9 BETTER GRAIN QUALITY PROTECTION

The biggest fear is losing grain quality due to:

- Hot spots
- Moisture migration
- Crusting
- Mold

Even preventing one spoilage event can pay for the system many times over.

LESS HARDWARE. MORE INTELLIGENCE. LOWER COST.
That's the Centaur One™ advantage.

CentaurOne™
INTERNET-OF-CROPS®

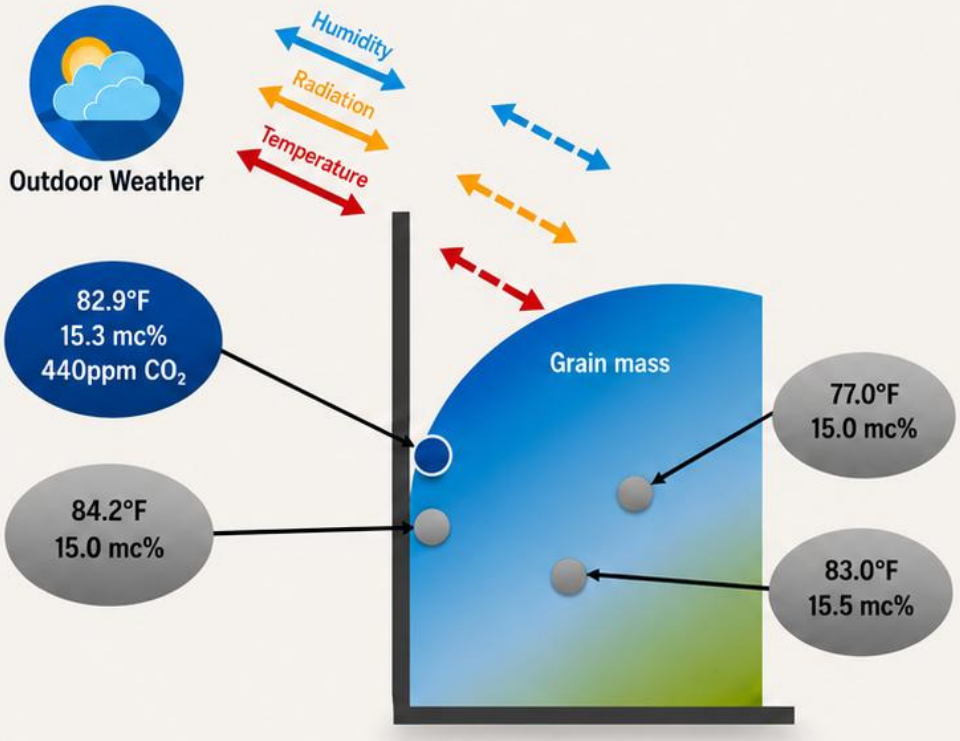
HOW CentaurOne™ WORKS

ARROW SENSOR measures conditions.

CFD DIGITAL TWIN models the grain mass.

WEATHER AND FAN RUNTIME DATA are integrated.

SYSTEM continuously self-calibrates.



HOW IT WORKS:

Estimate temperature, moisture, CO_2 and other quality metrics for the whole grain volume. Real-time data validation through sensors.

CENTAUR MODELS

Enable the estimation of grain conditions for the whole volume of grain based on local weather conditions and aeration events. Sections act as slices that give us a detailed insight in grain's temperature and moisture.

ADAPTIVE & INTELLIGENT

Models automatically compare estimated conditions with actual readings from the sensors. Models adapt quickly to achieve matching between simulated and measured values.

Simulated ✓ Measured

Since matching is established, we can rely on the other simulated values for the entire mass of the grain.

ONE SENSOR. COMPLETE VISIBILITY.
Smarter insights. Better decisions. Healthier grain.

CentaurOne™
INTERNET-OF-CROPS®

LESS HARDWARE. MORE INTELLIGENCE. LOWER COST.

THOUSANDS OF VIRTUAL SENSORS

CentaurOne™
Internet-of-Crops®

The CFD Digital Twin creates thousands of virtual measurement points throughout the grain mass from a single physical sensor.

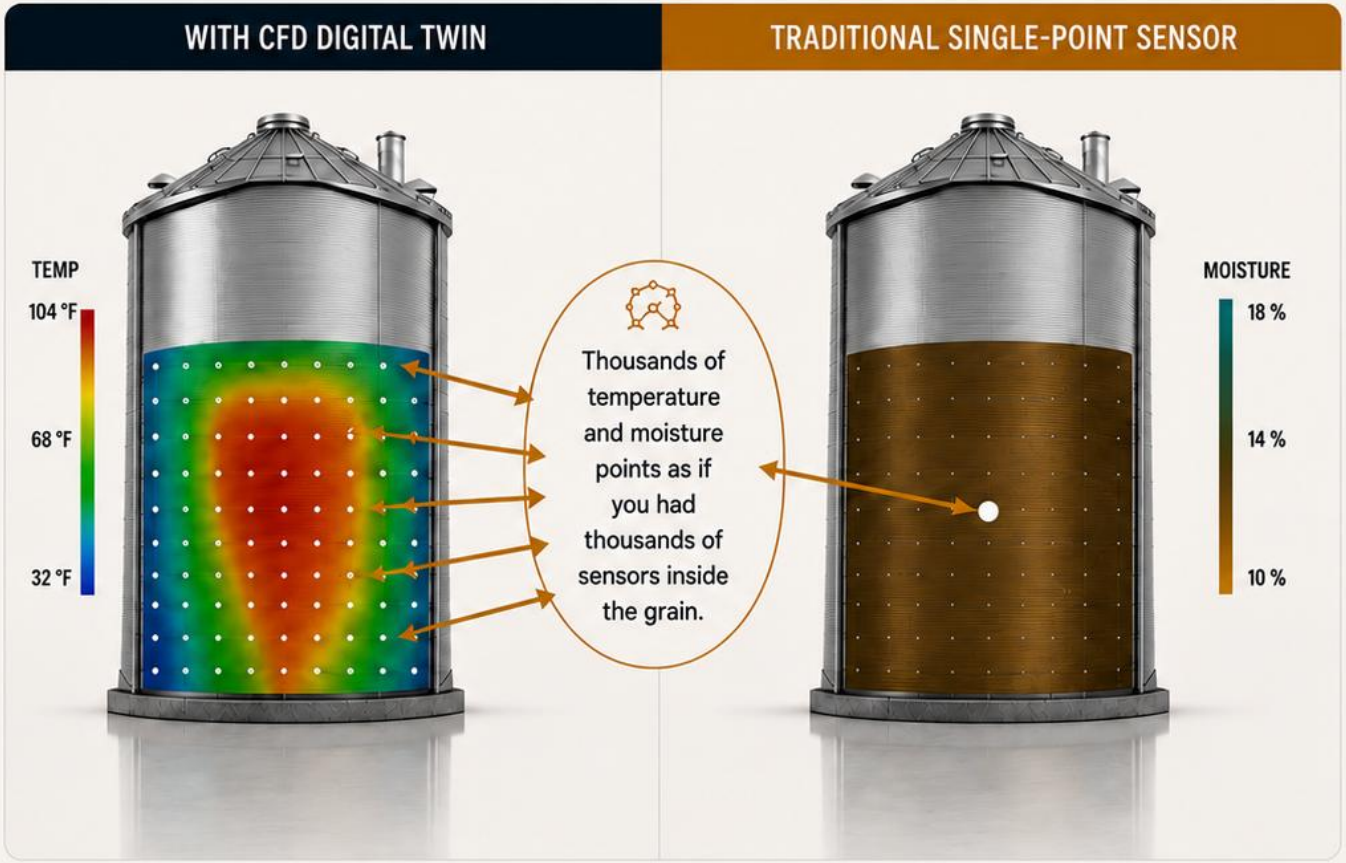
UNPARALLELED INSIGHT
See inside every part of your grain mass.

THOUSANDS OF DATA POINTS
From **one sensor** to a complete picture of your bin.

BETTER DECISIONS
Act with confidence using comprehensive, real-time data.

LOWER RISK, HIGHER VALUE
Protect grain quality and maximize your bottom line.

ANYTIME, ANYWHERE
Access critical information from any device.



ONE SENSOR. THOUSANDS OF INSIGHTS.
GREATER VISIBILITY. BETTER OUTCOMES.

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LESS HARDWARE. MORE INTELLIGENCE. LOWER COST.

OVERVIEW PAGE

Centaur®
Internet-of-Crops®

Monitor temperature, moisture, CO_2, alerts, fan status, and storage projections from anywhere.

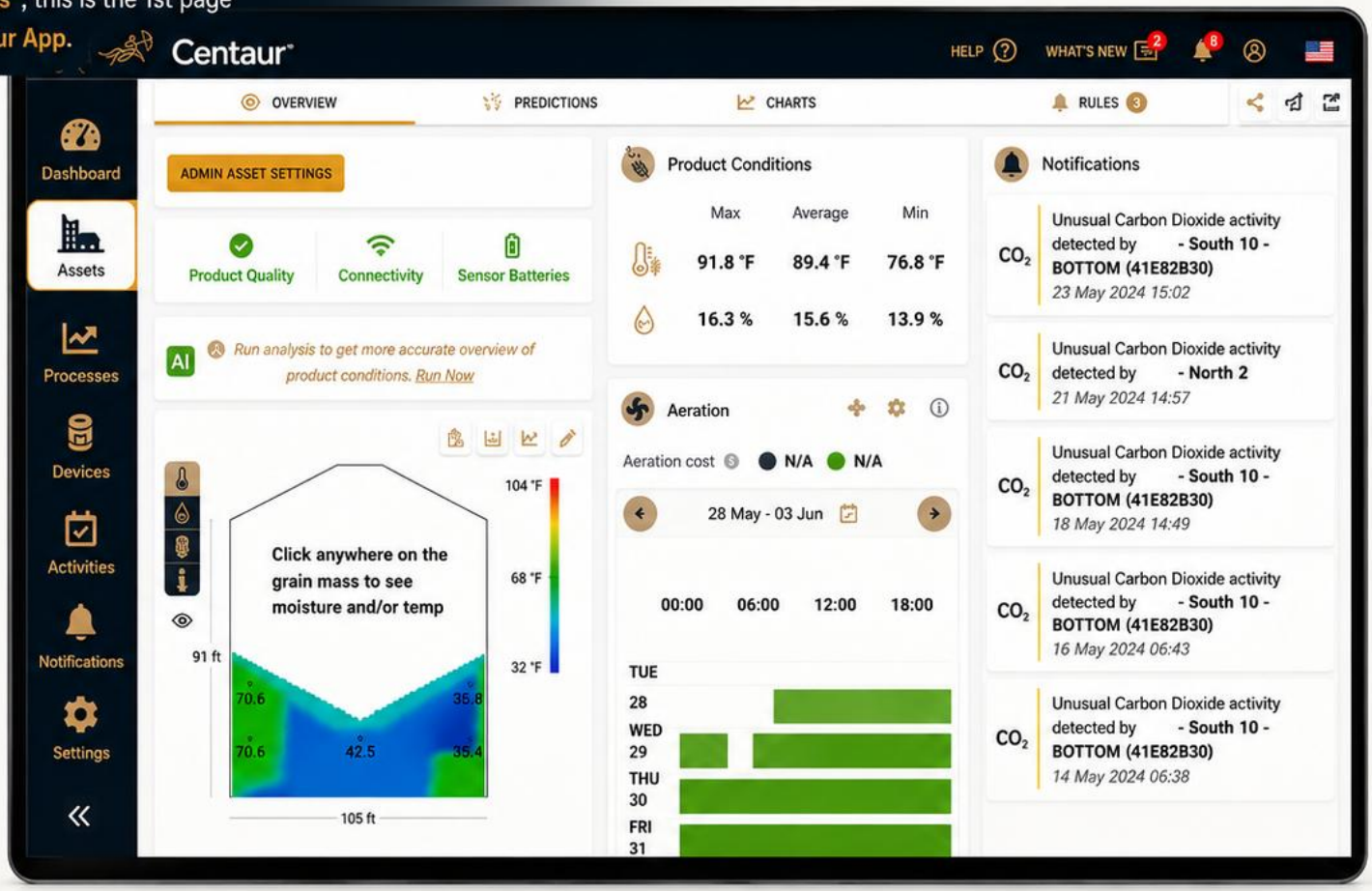
When you click on **"Assets"**, this is the 1st page you will see on the **Centaur App.**

COMPLETE VISIBILITY
View real-time conditions across all your bins.

SMART ALERTS
Get notified of issues that matter most.

DATA YOU CAN TRUST
Accurate insights help you make confident decisions.

ANYTIME, ANYWHERE
Access critical information from any device.



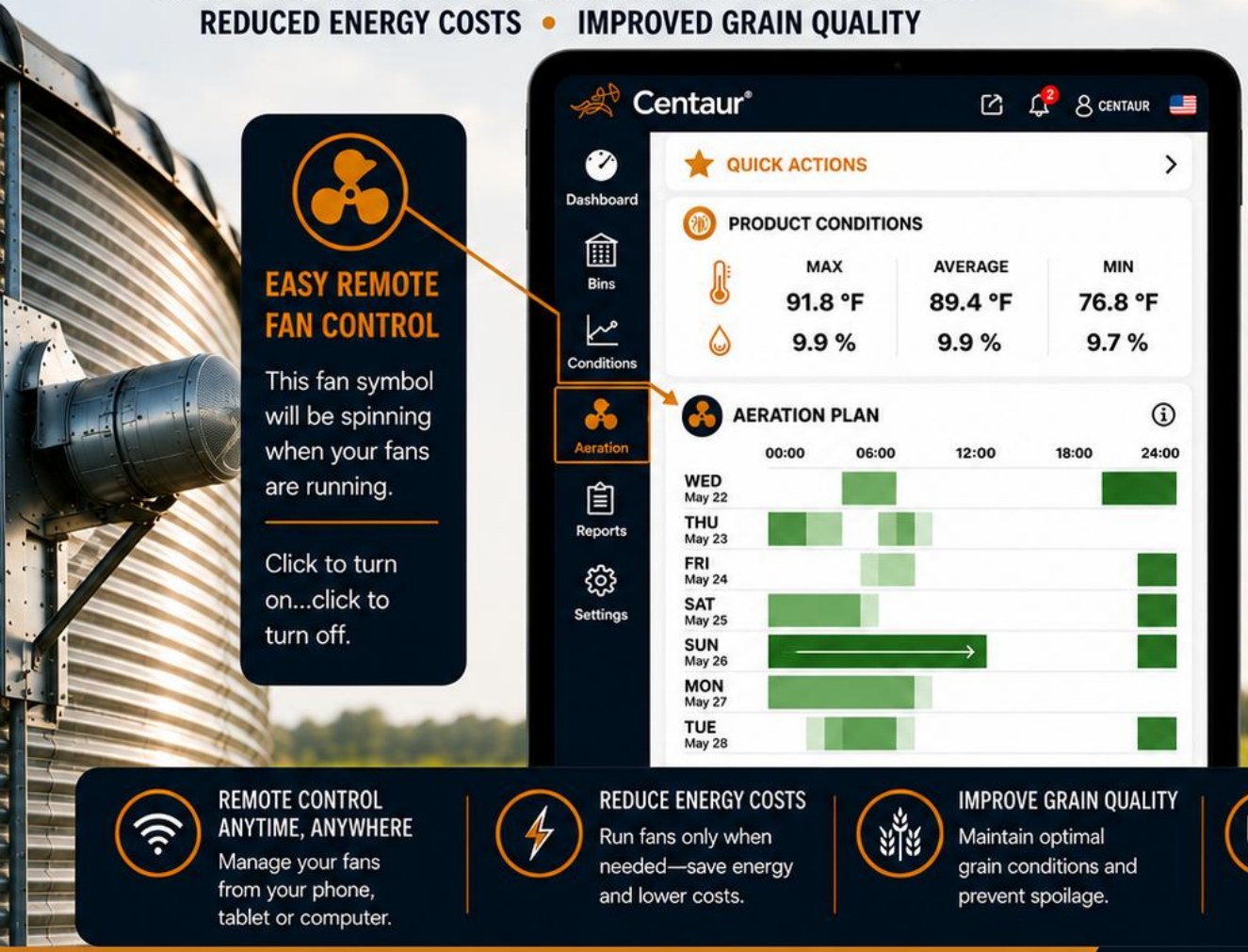
REAL-TIME INSIGHTS. BETTER DECISIONS. ANYWHERE YOU ARE.

CentaurOne™
LESS HARDWARE. MORE INTELLIGENCE. LOWER COST.

SMART AERATION MANAGEMENT

CentaurOne™
Internet-of-Crops®

REMOTE FAN CONTROL • MANUAL OR AUTOMATIC OPERATION
REDUCED ENERGY COSTS • IMPROVED GRAIN QUALITY



EASY REMOTE FAN CONTROL

This fan symbol will be spinning when your fans are running.

Click to turn on...click to turn off.

TAILORED AERATION PLAN

based on commodity, condition, location and desired status.

WHEN THE GREEN LINES APPEAR, YOUR FANS SHOULD BE RUNNING.

40% REDUCTION

of fan operation hours compared to a typical aeration plan.

REMOTE CONTROL ANYTIME, ANYWHERE

Manage your fans from your phone, tablet or computer.

REDUCE ENERGY COSTS

Run fans only when needed—save energy and lower costs.

IMPROVE GRAIN QUALITY

Maintain optimal grain conditions and prevent spoilage.

PROTECT YOUR INVESTMENT

Smarter aeration extends grain value and reduces risk.

SMARTER GRAIN MANAGEMENT.
BETTER RESULTS. LOWER COSTS.

CentaurOne™

LESS HARDWARE. MORE INTELLIGENCE. LOWER COST.

Chiron™ AI

AI-POWERED REPORT ASSISTANT

Chiron is your digital grain advisor—delivering fast, clear, and actionable insights so you can protect your grain and your bottom line.

- WEEKLY STORAGE REPORTS
- RISK ASSESSMENTS
- SAFE STORAGE PREDICTIONS
- RECOMMENDED ACTIONS
- PRIORITY MANAGEMENT ALERTS

MEET CHIRON: FAST, SMART, AND STRAIGHT TO THE POINT

Chiron is your AI-powered reporting assistant. It pulls together everything happening across your storage sites and delivers clear, focused reports in seconds—so you can spot risks early, understand trends, and know exactly what to do, and when.

WHAT CHIRON CAN DO FOR YOU

With thousands of data points flowing in every day, Chiron turns complexity into clarity. It breaks down the most important insights and delivers reports that include:

- ✓ **Bin-by-bin analysis** showing current status, capacity, and risks
- ✓ **Safe Storage Time** (forecasts for dry matter loss, mold risk, and germination)
- ✓ **Action lists** with 24-hour and 48-hour priorities
- ✓ **Tips and guidance** based on best practices and scientific models
- ✓ **Trend analysis** to catch slow developing problems before they get serious

CHIRON GIVES YOU THE FACTS—WITHOUT THE FLUFF

GRAIN STORAGE REPORT

Generated: Thursday, November 6, 2025 | 2 Bin-by-Bin Analysis

Internet-of-Crops® Monthly Storage Report

Facility: Illinois

Analysis Period: October 6 – November 6, 2025

1. EXECUTIVE SUMMARY

Overall Facility Status: ✓ OK GOOD

Key Findings:

Status: ✓ OK Good

Current Conditions:

- **Capacity:** 30K bu at 100% fill
- **Monitoring:** 2 active sensor devices providing comprehensive coverage
- **Data Quality:** All sensors systems operational and reporting

SST (Safe Storage Time) Outputs:

- **DML (Dry Matter Loss):** September 13, 2026 (10.3 months remaining)
- **VM (Visible Mold):** November 5, 2026 (12.0 months remaining)
- **Assessment:** Excellent storage projections indicating optimal con…

CentaurOne™ PRICING

YEAR 1

Hardware + Setup + First Year SaaS

$2,695

ANNUAL SAAS SUBSCRIPTION

Cellular connectivity • CFD Digital Twin • Chiron AI Report
Cloud storage • Support

$995/year

For larger bins please call us for a custom quote...
or simply email/text us with your bin dimensions
and we will get back to you with a quote.

Centaur – THE FUTURE OF GRAIN STORAGE

MONITOR SMARTER
Real-time insights across your entire grain mass.

PROTECT MORE GRAIN
Detect risks early and prevent costly spoilage.

SPEND LESS
Lower losses, lower labor, and lower operating costs.

Smarter technology.
Healthier grain.
Stronger bottom line.

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EXPAND WITH EASE.
MONITOR EVERY BIN.

Add more bins. Increase insight.
Lower your cost per bin.

ADDING MORE BINS PER SITE IS SIMPLE

Since the gateway and account already exist, each additional bin requires:

- Arrow™ sensor
- Bin Setup
- Activation

HARDWARE AND SETUP PRICE PER ADDITIONAL BIN

$1,095

NUMBER OF BINS	ANNUAL SAAS PER BIN
1	$995
2–4	$895
5–9	$795
10–19	$695
20+	$595

EXAMPLE FARM

- 6 BINS
- 30,000 BU EACH
- 180,000 BUSHELS TOTAL

HARDWARE INVESTMENT

First bin	$2,695
Five additional bins 5 × $1,095	$5,475

TOTAL HARDWARE INVESTMENT
$8,170

More bins.
More insight.
Lower cost per bin.

TOTAL HARDWARE + SAAS INVESTMENT TOTAL FOR 6 BINS

for 6 bins.

Hardware Investment
$8,170

+

Annual SaaS (6 bins)
6 × $795
= $4,770

=

TOTAL (YEAR 1)
$12,940

Year 1 Total = $2,695 + (5 × $1,095) + (6 × $795) = $12,940
Following Years: $4,770/year (SaaS only)

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30,000 BUSHEL BIN COMPARISON

FEATURE	CentaurOne™	TRADITIONAL CABLE SYSTEM	CO_2 ONLY SYSTEM
Year 1 Cost	$2,695	~$6,500–$8,500	~$2,000–$3,500
Annual Fee	$995	$400–$700	$300–$700
Installation	DIY 45 min	Professional installation	DIY or professional
Sensors Required	1 Arrow™	2–4 cables (12–48 sensors)	1–2 CO_2 sensors
Mobile Monitoring	✓	✓	Usually ✓
Fan Control	✓	Optional	Rare
Temperature	✓	✓	✗
Moisture	✓	Limited/Indirect	✗
CO_2 Detection	✓	Usually No	✓
CFD Digital Twin	✓	✗	✗
Thousands of Virtual Sensors	✓	✗	✗
Chiron™ AI	✓	✗	✗
Predictive Grain Modeling	✓	Limited	Limited
Grain Quality Forecasting	✓	Limited	No
Easy Expansion to More Bins	Excellent	Expensive	Moderate

MORE INSIGHT. BETTER DECISIONS. HIGHER RETURNS.
That's the Centaur One™ advantage.

CentaurOne™
INTERNET-OF-CROPS®

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TYPICAL CUSTOMER ROI EXAMPLE

Real savings. Multiple ways. One smart system.

WHY THIS IS BELIEVABLE

We built this example using conservative, real-world assumptions:

- **1.0%** reduction in grain loss is achievable for operations that avoid spoilage events.
- **0.5%** shrink reduction is realistic with better aeration management.
- **$400** in electricity savings is reasonable for optimized fan operation.
- **$1,200** in labor savings reflects fewer manual inspections and emergency trips.
- **$1,500** in marketing value represents the ability to safely store grain longer when market conditions improve. *(This is only 5 cents/bu. gain... it could easily be much more)*

CONSERVATIVE ANNUAL FINANCIAL IMPACT
30,000 BUSHEL BIN

SAVINGS CATEGORY	CONSERVATIVE ASSUMPTIONS	ANNUAL VALUE
GRAIN LOSS REDUCTION	1.0% reduction in spoilage losses at $4.50/bu	$2,700
SHRINK REDUCTION	0.5% reduction in shrink at $4.50/bu	$675
ELECTRICITY SAVINGS	Optimized fan run time and efficiency	$400
LABOR SAVINGS	Fewer inspections and emergency trips	$1,200
MARKETING VALUE	Ability to safely store grain longer for better pricing	$1,500
TOTAL ANNUAL BENEFIT		**$6,475**

YEAR 1 INVESTMENT
(Hardware + Setup + First Year SaaS) **$2,695**

YEAR 1 ROI
240%
PAYBACK IN ~ 5 MONTHS

This is an illustrative example based on representative grain storage conditions and conservative assumptions.
Actual results will vary depending on grain quality, storage duration, weather, energy costs, management practices, and commodity prices.

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