MCP SERVER | NO CODE | CLOUD HOSTED

Farm Profitability Dashboard MCP

See exactly how much profit every acre made.

Farm Profitability Dashboard calculates your farm's full financial picture. It breaks down revenue, costs of goods sold (COGS), and contribution margins for every crop you grow. You can also figure out overall metrics like EBITDA and ROI while ranking which parts of your land are making the most money.

A+ Quality Score 100/100

farming | profitability | agribusiness | financial-analysis | crop-management

MAINTAINED BY VINKIUS CLOUD FOR AI AGENTS · JUNE 2026
vinkius.com/mcp/farm-profitability-dashboard

SCAN TO VIEW

The infrastructure that powers AI agents in the real world.

Vinkius connects AI to the world's software through secure, enterprise-grade infrastructure — enabling real-world execution at scale, built on the Model Context Protocol (MCP).

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the cloud infrastructure where AI agents connect to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

Farm Profitability Dashboard MCP

3 tools available
Cloud-hosted on Vinkius

Running a profitable farm means knowing more than just bushels per acre. This MCP gives you a detailed financial analysis, allowing you to track profitability across your entire harvest. Need to know if corn really made its weight? Use this tool to see the revenue, COGS, and contribution margin for each individual crop. It goes beyond simple totals by calculating your total gross revenue, EBITDA, and Return on Investment (ROI), factoring in everything from variable production costs to fixed property expenses. Plus, you can run efficiency reports to analyze land profit per hectare and pinpoint which crops are top performers via a profitability ranking. Getting this deep financial data shouldn't require jumping between five different spreadsheets; that's where Vinkius comes in. Connect your client once and access all these metrics instantly.

Core Capabilities

01 — Assess per-crop finances

Calculate the revenue, cost of goods sold (COGS), and profit margin for every specific crop on your farm.

02 — Determine overall financial health

Get a comprehensive calculation of your farm's total gross revenue, EBITDA, and Return on Investment (ROI).

03 — Rank land efficiency

Analyze how efficiently you are using your acreage by calculating profit per hectare.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/farm-profitability-dashboard** — connect your AI agent in three steps.

01 First, tell the MCP which crops and what financial periods you need analyzed.

02 The system processes all raw data against known cost structures (variable production costs, fixed property expenses).

03 You receive a clear report detailing crop margins, total farm financials like EBITDA, and efficiency rankings.

The bottom line is that you get one actionable financial summary of your entire operation.

Built For

This MCP is built for agricultural business owners, farm managers, and commodity analysts who need to move beyond simple yield reports. It's for the person tired of spending hours manually compiling data from multiple accounting sources just to figure out if they made money or lost it.

Farm Owner

Uses this tool monthly to check overall profitability and decide which crops are worth keeping in the rotation next year.

Agribusiness Consultant

Runs detailed analyses on multiple client farms, using `get_crop_economic_breakdown` to benchmark margins across different commodity groups.

Farm Financial Manager

Calculates year-end financial summaries and tracks EBITDA against fixed property expenses for tax planning.

What Changes When You Connect

01 Pinpoint weak spots immediately. Use `get_area_efficiency_and_ranking` to see which acres or crops are dragging down overall profitability, allowing you to adjust planting strategies instantly.

02 Stop guessing your gross earnings. The `get_farm_financials` tool provides a clear calculation of total EBITDA and ROI, giving you the high-level picture needed for bank loans and investor pitches.

03 Deep dive into margins. Instead of just knowing corn sold well, use `get_crop_economic_breakdown` to see its exact revenue versus its COGS, understanding *why* it was profitable.

04 Save time on manual reporting. You don't have to cross-reference five different spreadsheets for fixed and variable costs; the dashboard handles all that complexity in one go.

05 Make better planting decisions. By analyzing efficiency metrics and running crop profitability rankings, you shift from guessing what to plant to knowing exactly what maximizes profit per hectare.

Real-World Applications

Figuring out budget cuts after a bad season

A farm owner needs to know which crops are most responsible for the losses. They ask their agent, and it uses `get_crop_economic_breakdown` to break down every crop's contribution margin, immediately showing that specialty grains were the weakest link.

Preparing a loan application

A farm manager needs to prove overall financial stability. They run `get_farm_financials`, which quickly calculates total gross revenue and EBITDA, giving them the necessary hard numbers for their lender presentation.

Revising land use strategy

An agribusiness consultant wants to maximize client profit per acre. They execute `get_area_efficiency_and_ranking`, which immediately highlights that a specific corner of the property, currently dedicated to low-yield alfalfa, should be switched to high-value soybeans.

Comparing current year performance to last year

A farm owner compares two years' data. By running `get_farm_financials` for both periods, they instantly see their ROI dropped by 10%, telling them exactly where the financial decline started.

Patterns to Avoid

Only checking total revenue

✗ AVOID

Assuming that because a crop made high gross sales (e.g., $50,000), it was profitable and should be kept.

✓ INSTEAD

Don't just look at the top line. You must use `get_crop_economic_breakdown` to subtract COGS from revenue. This shows if the actual cost of growing that crop made it unprofitable despite high sales.

Manually calculating EBITDA

✗ AVOID

Trying to total up all variable production costs, then subtracting fixed property expenses in a separate spreadsheet.

✓ INSTEAD

Let the MCP handle the math. Use `get_farm_financials`. It calculates your entire financial health—including both fixed and variable costs—in one single function call.

Ignoring land performance

✗ AVOID

Treating all acreage equally, even if some parts of the farm are much more expensive to maintain or produce lower yields.

✓ INSTEAD

To optimize your layout, run `get_area_efficiency_and_ranking`. This tool tells you profit per hectare, forcing you to focus on maximizing output from every square foot.

The Right Fit

Use this MCP if your primary goal is financial accountability. You need to know *why* a crop or field performed well—not just that it did. This tool forces you to look at COGS, EBITDA, and ROI, giving you granular data points for decision-making like adjusting planting ratios. Don't use this if all you want is raw yield statistics (e.g., pounds per acre). If your only concern is volume or weight, a simple harvest tracking MCP will suffice. You need the financial layer; you need to understand profit margins, which requires using `get_crop_economic_breakdown` and `get_farm_financials` together.

The accounting headache of farming is notorious.

Today, figuring out true profitability is a manual nightmare. You're staring at multiple tabs: one for overall sales data, another for seed and fertilizer costs, and yet a third spreadsheet just for fixed property taxes. You have to copy-paste numbers between these sources just to get an EBITDA figure, which takes hours of frustrating cross-referencing.

With this MCP, you feed the raw data once. The system instantly pulls everything together, giving you not only your total gross revenue but also a detailed breakdown that factors in every single cost—from variable production costs to fixed property expenses. You get the final, accurate financial report without lifting a finger.

Profitability Dashboard MCP delivers complete financial visibility.

You no longer need to calculate your overall financial health by hand; running `get_farm_financials` gives you the total ROI and EBITDA in seconds. Furthermore, if you want to test out a new crop mix, `get_area_efficiency_and_ranking` immediately tells you which combination maximizes profit per hectare.

The result is simple: You stop spending time compiling reports and start spending time running your farm. This MCP gives you the answers fast.

Farm Profitability Dashboard: 3 Tools

Use these tools to break down complex agricultural finances, determine overall farm health, and rank land efficiency metrics for better decision-making.

#	TOOL	DESCRIPTION
01	`get_area_efficiency_and_ranking`	Analyzes your land use to calculate profit per hectare and identifies the most profitable crops.
02	`get_crop_economic_breakdown`	Provides a specific financial breakdown including revenue, cost of goods sold, and contribution margin for any given crop.
03	`get_farm_financials`	Calculates the farm's overall financial health metrics like total gross revenue, EBITDA, and ROI.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U What is the revenue, cost, and margin for my corn and soybean crops? Fixed costs are 5000.

For Corn: Gross Revenue is $12,000, COGS is $8,000, and Contribution Margin is $4,000. For Soybeans: Gross Revenue is $15,000, COGS is $10,000, and Contribution Margin is $5,000.

U What is the overall financial health of my farm?

Your total gross revenue is $27,000, your farm EBITDA is $12,000, and your Return on Investment (ROI) is 44.4%.

U Which of my crops should I prioritize for the next season based on efficiency?

Based on your data, Soybeans are your top performer with a higher contribution margin percentage, followed by Corn.

Frequently Asked Questions

01 **How does get_farm_financials calculate my ROI?**

It calculates Return on Investment (ROI) by taking your total gross revenue and comparing it against your overall operational costs. This provides one key metric for showing investors how effective your investment has been.

02 **What kind of data is needed for get_crop_economic_breakdown?**

You need to input the total revenue, the cost of goods sold (COGS), and the specific crop type. The MCP then calculates the contribution margin for you.

03 **Can I use get_area_efficiency_and_ranking to find my best fields?**

Yes, that's exactly what it does. It analyzes land efficiency by calculating profit per hectare, helping you identify which specific areas of the farm are performing optimally.

04 **Does this MCP calculate fixed costs and variable costs separately?**

The system accounts for both. `get_farm_financials` includes everything—from constant property taxes (fixed) to seed prices per acre (variable)—to give you a complete picture.

05 **Is this MCP better than using an external accounting program?**

This MCP complements existing software. It pulls the finalized data from your records and runs specialized, complex financial models—like EBITDA calculations across diverse crops—that traditional programs might not handle in one view.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"farm-profitability-dashboard": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

Farm Profitability Dashboard is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

Generated	June 2026
MCP Server	Farm Profitability Dashboard MCP
Server ID	`019ef978-6144-71e7-b732-dad9679fc291`
Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

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