

Feature & Process Breakdown

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WHAT THIS IS

Sugarcane Farm Manager is a free farm management app built for Philippine sugarcane smallholders. It runs in the browser, so there is no App Store, no install, and no subscription fee. Everything works offline first. Data sits on the farmer's phone and syncs to the cloud when a connection comes back. The nine tabs below cover the full farming cycle, from land prep to the quedan receipt from the mill.

THE APP — LIVE SCREENSHOTS

OVERVIEW

OverviewMapFieldsPestsWorkersExpensesHarvestExportSettings

FARM SUMMARY

Total area

16.8 ha

Fields logged

15

Aug cost

none

Fields at risk

none

Next harvest

none

Spent this month

P0.00

Weather - Tanjay, Negros Oriental, Philippines

28°C

Humidity: 79%

Overcast

Wind: 16 km/h

Last updated: 8/6/2026, 8:59:38 AM

NEXT FEW DAYS

Today

30° / 25°

100% rain

Fri

30° / 26°

100% rain

Sat

30° / 26°

100% rain

Sun

31° / 26°

100% rain

Mon

32° / 26°

100% rain

Work calendar

August 2026

SU

MO

TU

WE

TH

FR

SA

1

2

3

4

5

6

7

8

MAP

OverviewMapFieldsPestsWorkersExpensesHarvestExportSettings

Your fields, mapped

Fields you've traced on the satellite map show their real outline. Fields you haven't measured yet show as a pin at your farm's registered location — tap "Measure on satellite map" on any field to trace its actual shape.



FIELD GROWTH STAGE

Land prep

Planting

Growing

Harvest

Pest spread overlay

Registered outbreak water — zoom out after it loads to see them relative to your farm.

Hide pest spread

FIELDS

OverviewMapFieldsPestsWorkersExpensesHarvestExportSettings

ALL FIELDS — TAP A CARD TO VIEW OR EDIT

Set all fields' stage...

+ Add field

Field 1

Growing

Good

Area

4.00 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

river

Total expenses

P432,217.85

Field 2

Growing

Good

Area

2.80 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P302,476.69

Field 3

Growing

Good

Area

1.72 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P185,807.18

Field 4

Growing

Good

Area

1.07 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P115,589.30

Field 5

Growing

Good

Area

0.212 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P22,901.82

Field 6

Growing

Good

Area

0.976 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P105,434.77

Field 7

Growing

Good

Area

1.17 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P126,392.06

Field 8

Growing

Good

Area

0.610 ha

Workers today

0

Moisture

Adequate

Irrigated

0

Pest

None

Height

3-5 ft

Leaf color

Green

Fertilizer

21-0-0 (2 doses)

Total expenses

P65,896.76

PEST MAP OVERLAY

OverviewMapFieldsPestsWorkersExpensesHarvestExportSettings

PEST SPREAD — PHILIPPINES



Severity

High

Moderate

Low

Suspected

Solid pin = farmer report

Pests affecting sugarcane in the Philippines

Reference guide — tap a pest for symptoms and what to do about it.

Red-striped soft scale insect (RSSI)

Active outbreak

Severe

White grub

High

High

Sugarcane stem borer

High

High

Rats / rodents

Moderate

Moderate

EXPENSES

OverviewMapFieldsPestsWorkersExpensesHarvestExportSettings

Total spent left this month

P2,336,634.29

Spent this month

P0.00

Spent per ha

P139,101.93 /ha

SPENDING BY CATEGORY

Labor

Fertilizer

Seed (sowing material)

Pesticides & herbicides

Plant & equipment

Irrigation

Transport (hauling)

Land rental

Other

Phenacarburetion

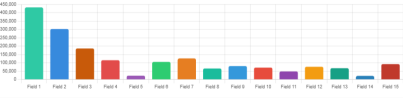
EXPENSES BY FIELD

Total

By category

Per ha

Trend



Log an expense

Date *

06/08/2026

Field

General / farm-wide

Category

Labor

Amount (P) *

e.g. 1500

Notes

Optional

HARVEST

OverviewMapFieldsPestsWorkersExpensesHarvestExportSettings

Total tickets

0

Awaiting queues

0

Est. harvest cost

none

Aug CCS

none

+ Add haul ticket

How the quedan system works

Haul ticket

You fill this out as each truck or train haulier leaves the farm. Estimated tonnes, mill destinations, truck plate or bucket number.

Quedan receipt

The mill returns this 3 to 7 days after delivery. It shows mill-confirmed tonnes, CCS percentage, and your UIC sugar share. Tap "Enter quedan" on the ticket.

Settlement

Payment follows from the mill or your coop. Tap "Mark paid" once you receive it.

No fields are set to harvest stage yet. Go to the Fields tab and update a field's growth stage to "Ready for harvest" — the Add Haul Ticket button will appear on that field's card.

HAUL TICKETS

All tickets

All statuses

No haul tickets logged yet. Use "Add Ticket" on a field card when you're ready to harvest.

THE NINE TABS

Overview

Farm summary: total area, fields logged, month-to-date spending, live weather from the farm's GPS location, a work calendar, and the latest field notes. Updates as data comes in from the other tabs.

Map

Satellite and street view with drawn field boundaries. A live pest overlay shows community declarations and SRA-validated outbreak data as coloured circles. Tap any circle to see the pest type and severity.

Fields

One card per field: variety planted, planting date, growth stage, soil moisture, pest status, fertilizer schedule, and full task history. Stage-specific recommendations show up automatically based on what has been logged.

Pests

Symptom-based pest identification that works with no internet. Declaration tool logs the sighting with GPS pin, timestamp, severity, and optional photo. Declarations feed the community map and produce a dated, georeferenced record for SRA or DA assistance applications.

Workers

Daily or hourly worker logs linked to specific fields. Name, task, hours, rate, and total pay calculated automatically. Monthly labour cost rolls up to the Overview summary.

Expenses

Cost tracking across fertilizer, chemicals, fuel, hauling, and other categories. A catch-up entry mode lets farmers log costs from before they installed the app. Total expenses sit alongside revenue at harvest.

Harvest

Haul ticket entry per truckload or train bucket, quedan receipt logging when the mill sends figures back, and CCS tracking per field. Revenue and sugar content charts show how individual fields performed across the season.

Export

Download full farm records or filtered data as a file. Built to share with cooperatives, accountants, and government offices when farm records are requested.

Settings

Farm name, GPS location set by pin-dropping on a map, land area, and unit preference. Two features worth noting: **cloud backup** (sign in once, records sync automatically across devices) and the **Farm View Link**, a read-only shareable URL that lets a cooperative manager or agronomist see a farm's live data without login access. The link is revocable instantly.

HOW THE KEY PROCESSES WORK

The tabs above are what the farmer sees. What follows is how the app reasons about the data behind each one.

Pest declarations — how the record gets its credibility

When a farmer declares a pest, the app builds a record meant to hold up when it reaches an SRA office or a DA extension officer.

1. **GPS coordinates** are captured at the moment of declaration and stored permanently on the record, whether the farmer is online or not.
2. **If a photo is attached**, the app reads the location data embedded in the image file (EXIF data) and runs a haversine distance check against the declared field's coordinates. If the photo was taken more than 3 km from the field, the farmer gets a warning before submitting. The record is flagged with a location-verified status either way.
3. **A timestamp** is stored at the moment the declaration is created on the device, independently of when it syncs to the server.

The declaration works offline. In Negros Oriental in July 2026, the SRA had validated 1,571 hectares out of 17,125 reported. That gap is a staffing problem. A georeferenced, timestamped file with a location-checked photo is a much stronger foundation for a field visit request than a plain text entry.

Soil moisture — how live rainfall data overrides a stale manual entry

Farmers log soil moisture manually on each field card. Manual entries go stale fast, so the app overrides them in two situations using live weather data from the farm's GPS coordinates:

1. **More than 10 mm of rain recorded today** sets the status to Adequate regardless of the last manual entry. The actual rainfall figure is shown on the card.
2. **5 mm or less of total rainfall across the previous 14 days** sets the status to Dry regardless of the manual log, with "no rain in 2 weeks" shown as the reason.

Outside those two cases, the manual entry stands. The same calculation drives both the field card and the soil moisture chart on the Overview tab, so they are always consistent.

Growth stage tracking — how the app knows what to flag

The app models 12 stages of a real sugarcane cycle, each with a typical duration in days. When a farmer marks a stage change, the date is recorded and a days-in-stage counter starts. If a field sits in a stage significantly longer than typical, a soft flag appears on the field card as a prompt to check.

Planting date triggers a harvest window estimate of 300 to 365 days, shown on the field card to help with hauling and mill scheduling. Stage-specific recommendations come from what is logged on that field: a grand-growth field with fertilizer not yet applied gets a fertilizer reminder; a severe pest flag triggers an immediate action prompt; a high ratoon count surfaces a replanting suggestion.

Variety intelligence — agronomic guidance matched to what is planted

The app carries agronomic profiles for the major VMC, Phil, and PSR varieties across Negros, Cebu, Bukidnon, and the Davao sugar districts. Each profile covers soil fit (rated good, fair, or poor across five soil types), fertilizer priority with timing, variety-specific timing reminders, and known weaknesses. This guidance appears on the field card for whatever variety is planted there — the farmer does not need to search a knowledge base.

Harvest and quedan tracking — the full mill cycle in one place

1. **Haul ticket** — logged per truck or train bucket when cane is hauled out. Date, plate number or bucket count, estimated tonnes, and destination mill.
2. **Quedan receipt** — the mill returns a quedan 3 to 7 days after delivery. The farmer enters the CCS figure, the LKG farmer share, and sugar class.
3. **Revenue and CCS charts** — once quedans are entered, the app calculates revenue per field and plots CCS by field so the farmer knows which fields produce higher sugar content.

Tickets awaiting quedan entry are counted and flagged on the tab. The whole mill cycle is logged in one place.

Offline-first architecture — why the app works with no signal

All data is written to the device first. Fields, tasks, pests, expenses, and harvest records are available and editable with no internet connection. Sign in once with a Google account and records sync automatically whenever a connection is available. A farmer who loses their phone and reinstalls the app gets their full record back from the cloud. The app installs to the home screen as a PWA with no App Store required.

Farm View Link — read-only access for cooperatives and agronomists

A farmer can generate a shareable Farm View Link from the Settings tab. Anyone with the link sees a live read-only view of that farm's current data: field cards, growth stages, pest status, harvest figures. They cannot edit anything and do not need an account. The link has an expiry the farmer sets and can be revoked at any moment. Access is logged server-side. Built for cooperative field supervisors, mill-side agronomists, and DA extension officers.

NPK fertilizer mix logging — recording what was actually applied

When fertilizer is logged on a field, the farmer can enter the actual mix used rather than just checking an "applied" box. The app parses standard NPK notation (e.g. 14-14-14, 21-0-0) and stores the N, P, and K values separately. A field that received 14-14-14 and one that received 46-0-0 are recorded differently. This matters when comparing yield across ratoons or between fields with different soil types.

Work calendar — tasks and weather in the same view

The Overview calendar shows upcoming tasks, completed tasks, and weather data together. Recorded rainfall days appear in blue; forecast rain days appear with a dashed border; completed tasks show in green. A farmer scheduling a spray day can see in the same view whether rain is forecast. A task logged on a rainy day sits next to that rainfall data in the same calendar cell.