

Crop Sprayer App: Dosage calculator for plant protection products

Optimizing Pesticide Application for Sustainable Agriculture

The Crop Sprayer app enables users to determine the appropriate amount of pesticide concentrate needed based on sprayer type and application area. It calculates the total product required, the number of sprayer tanks needed, and adjusts calculations for different sprayer sizes. The app operates offline after initial download, requiring minimal device storage space.



CABI PlantwisePlus

CABI PlantwisePlus
Claire Palmer

Commodities

All Crops

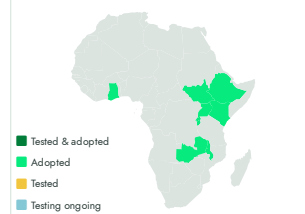
Sustainable Development Goals



Categories

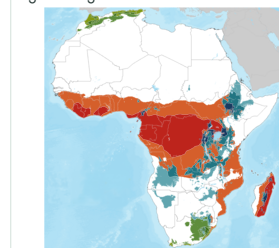
Production, Digital applications,
Advisory and information service,
Pest control

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Farmers, Sellers,
Advisory and Extension Services



This technology is **pre-validated**.

9·7



Scaling readiness: idea maturity 9/9; level of use 7/9

Gender assessment

3

Climate impact

2

Problem

- **Crop Loss:** Farmers lose up to 40% of their crops to pests and diseases, significantly reducing yields and income.
- **Pesticide Misuse:** Up to 75% of pesticide applications are either misused or overused, leading to ineffective pest control and wasted resources.
- **Health and Environmental Impact:** Misapplied pesticides can adversely affect human health, harm non-target organisms, and damage the environment.

Solution

- Enhance food security and protect the environment with precise pesticide dosing that reduces waste.
- Ensure compliance with national standards through data-driven pesticide management.
- Improve crop protection efficiency via informed resource allocation.

Key points to design your project

- **Enhance Food Security:** Implement the Crop Sprayer App to promote precise pesticide application, reducing crop losses and increasing agricultural productivity.
- **Ensure Regulatory Compliance:** Utilize the app to support farmers in adhering to national pesticide regulations, fostering safer agricultural practices.
- **Promote Environmental Sustainability:** Encourage the adoption of the app to minimize pesticide overuse, thereby protecting ecosystems and public health.

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Crop sprayer App



Open source / open access



Crop Sprayer App

<https://e-catalogs.taatafrica.org/gov/technologies/crop-sprayer-app-dosage-calculator-for-plant-protection-products>

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Enquiries e-catalogs@taatafrica