AgWise: Specific Fertilizer Recommendations

Farm Smarter, Not Harder

A free, open digital tool that turns national soil and weather data into exact fertilizer plans for every farmer. Extension agents deliver the advice straight to farmers, boosting yields and trimming fertilizer waste, so ministries get bigger harvests, lower subsidy costs and cleaner environmental outcomes.

CGIAR SFSP (ex-EiA)
Wuletawu Abera

This technology is **not yet validated**.

7·5 Scaling readiness: idea maturity 7/9; level of use5/9

Inclusion assessment 4

Climate impact 7

Problem

- **Leaky subsidies:** Blanket packages drain funds.
- **Outdated tools:** Extension lacks digital support.
- **Yield gaps:** Productivity still lags.
- **Emissions pressure:** N_2O levels keep rising.
- **Poor tracking:** Impact data stay missing.

Solution

- **Smarter subsidies:** Integration with e-voucher tools funds only the fertilizer each field needs, protecting budgets.
- **Digital extension:** Advice delivered via SMS or tablets equips officers with up-to-date, site-specific guidance.
- **Traceable results:** Dashboards track uptake, yields, and emissions, easing policy monitoring.

Key points to design your project

AgWise is a comprehensive digital platform offering weather advisories, variety selection, fertilizer recommendations, and optimal planting dates. By leveraging empirical and process-based analytics, AgWise enhances productivity, profitability, and sustainability for smallholder farmers.

Key Integration Steps:

- **Partnership:** Collaborate with agricultural research institutions and EiA experts. Partner with local extension agents for effective dissemination and use.
- **Awareness and Training:** Conduct dissemination events and training sessions for farmers and extension agents. Provide hands-on training on all AgWise features.
- **Infrastructure and Accessibility:** Assess and upgrade necessary infrastructure, including internet connectivity and hardware availability. Address digital literacy of farmers.
- **On-field Assistance:** Deploy extension agents for on-field support and troubleshooting.
- **Accessible Interfaces:** Make AgWise available via smartphone apps, IVR systems, chatbots, and printed guides.
- **Demonstration Plots:** Establish demonstration plots to showcase AgWise recommendations in real farming conditions.
- **Feedback Mechanism:** Implement a feedback system to gather and act on farmer input for continuous improvement.
- **Expansion:** Plan for AgWise expansion to additional regions and crops with region-specific recommendations.

69 % in Rwanda
Potato yield increase

IP
Unknown

Technology from

CGIAR Sustainable Farming Science Program (ex-EiA)

Commodities

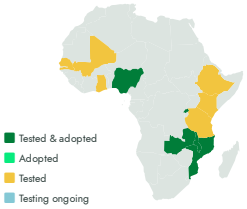
Maize, Rice, Soybean, Cassava, Wheat, Potato

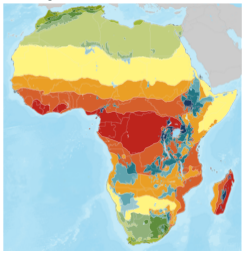
Sustainable Development Goals

Categories

Production, Digital applications, Advisory and information service, Crop management

Tested/adopted in



Where it can be used

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