









An Android-based app providing customized recommendations for fertilizer management on rice

- ► An Android-based app available on Google Play
- ▶ Provides customized (field-level) recommendations for fertilizer management (which fertilizers, when and how much), expected crop duration and other good agricultural practices
- Can be adapted to any irrigated or favorable rainfed lowland in Africa
- ▶ 100,000 recommendations generated (end of 2021)
- ▶ Increases yields (by 7–20%), profits (by 10–23%) and nutrient use efficiency
- ► Expected users: Extension agents, private rice value chain actors (millers, input dealers, seed producers, machinery service companies, farmer associations) and youth who want to produce recommendations for farmers and themselves.

How to use RiceAdvice

Step 1: Download RiceAdvice from Google Play on smartphone or tablet.





Step 2: Read RiceAdvice installation and user manual.





Step 3: Following discussion between the provider and farmer, fill in farmer's personal farming conditions: Rice-growing conditions, typical practices, expected sowing date, fertilizer availability and market price.



Step 4: Set yield targets based on available budget or desired production level.



Step 5: Get personalized recommendations including a crop calendar, fertilizer plan, recommended rice variety and other good agricultural practices.



Step 6: Record personalized recommendations for the farmer, like the example below.

Country/location	Nigeria/Kano	Field size (ha)		1
Season	Wet	Target yield (t/ha)		6.5
Variety	FARO 44	Sowing date		2022/06/15
Establishment	Transplanting	Expected seedling age		< 20 days
Rice growth stage	Basal	Tillering	Panicle initiation	Booting
Application timing	At transplanting	31–35 DAS (2022/07/18)	43–47 DAS (2022/07/30)	73–77 DAS
NPK (15-15-15) (kg)	252	0	0	0
Urea (46–0–0) (kg)	0	92	108	0

DAS: Days after sowing; For farmers who do not have a smartphone, the printout would be filled in with the recommendations generated by RiceAdvice.

- **Step 7:** Farmer follows personalized recommendations and applies good agricultural practices. The RiceAdvice guideline is effective if good agricultural practices are applied. Here are some examples.
 - 1. Well-leveled field with bunds for good water management and uniform rice growth
 - 2. Sowing/transplanting on time, following optimum sowing window (if applicable)
 - **3.** Uniform sowing/transplanting for good canopy establishment (e.g. $20 \text{ cm} \times 20 \text{ cm}$ for transplanted rice)
 - **4.** Weed-free fields (use of weed-free seed/seedlings, proper land preparation [e.g. off-season tillage, preseason flooding, cleaning irrigation canals], and use of herbicide, following spray application guideline)
 - 5. Don't apply fertilizer at high water level or when water stress is severe
 - **6.** Distribute the fertilizer dose equally to all plants.

Good agronomic practices are available via the following link.



Additional information

A simplified version of RiceAdvice, 'RiceAdviceLite', is under testing. If you are interested in testing, follow the QR code.



Contact information

For further help with using RiceAdvice, email: support@riceadvice.info
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