NUTRIENT MANAGER FOR RICE

Area of Focus: Precision agriculture

How it works: The Nutrient Manager for Rice (NMR) is a decision support tool that includes both web-based and mobile applications providing personalized fertilizer guidelines for small-scale rice farmers or extension workers. Users of NMR provide information about their specific rice field by responding to brief questions about their planting method, the size of their field, its location, the duration of the growing season, and typical yields among other factors. Based on these inputs, the program recommends how much fertilizer (nitrogen (N), phosphorus (P), and potassium (K)) should be added at critical growth stages of the plant in order to increase profit. The mobile version uses an interactive voice response (IVR) system to guide the user through this survey with a recorded questionnaire, whereas the smart phone app and web-based versions include both text and pictures where appropriate. For example, each question about the rice planting method provides the user with a photo of each method in case they are unfamiliar with the terms. It is already available in the Philippines in five local dialects. In Indonesia, the web version has been released and the mobile app will be ready by April 2012 in four local dialects.

Technology used: Basic mobile phone, smart phone (Android app), computer with internet access

Implementer/Funder: International Rice Research Institute (IRRI) together with local partners (primarily ministries of agriculture and mobile phone companies, but also fertilizer and other input firms) in implementing countries.

Fees: Use of the NMR is free for the end-user, although standard phone and internet rates can sometimes apply for access.

Primary Markets: There are currently localized versions of the NMR in the Philippines and Indonesia. In addition, IRRI is developing versions for Bangladesh, Vietnam, and West Africa (covering Ghana, Mali, Nigeria, and Senegal).

Users: Primarily small-scale rice farmers, farm extension workers, and crop advisors.

Business Model: NMR is supported by IRRI and its local partners, and IRRI is developing business plans to engage mobile phone companies and micro-finance institutions that include providing a range of crop management inputs and services.

Impact: At the moment, the NMR is being piloted so it is still too early to measure its impact. However, it is IRRI's belief that using the application will enable farmers to increase their incomes through increased yields. Since NMR relies on the ability of farmers to indicate their location, external support using GPS may be useful.

For more information visit: http://irri.org/knowledge/tools/nutrient-management-decision-tools

Sources: http://irri.org/our-science/crop-environment/site-specific-nutrient-management/farmers-and-extension-workers