FertExpert - Coffee

An innovative solution to calculate the fertilizer formula most suited to the actual conditions of each plantation in a group of coffee plantations

**Usual fertilizer recommendations**

1. **Generic fertilizer:** meets the average needs of the country (e.g. 12-6-20 in Côte d’Ivoire and 22-6-12 in Burundi).
   - Often not effective (soil is not taken into account)

2. **Calculation of fertilizer needs** using "Soil Diagnosis" method (Fertiliser amount = Crop needs – soil nutrients)
   - Very accurate but time consuming & expensive (many soil samples)

**Alternatively try the “FertExpert” model**

**You only need:**
- Survey technicians
- Smartphone or tablet
- Portable pH-meter

**We provide:**
- Training to your technicians
- The FertExpert application

The descriptors were adjusted by comparing with results of a soil diagnosis analysis in 140 plots in Côte d’Ivoire and 70 in Burundi.

**1. The map of fertilizer formulas per land unit:**
Combines the "soil diagnosis" with soil & climate maps.
- Soil physical nature & average cation needs (amounts & ratios).

**2. Soil factors and cultural practices:** Information easy to collect in the field on smartphone application
- Local and more recent changes in soil fertility.

The tool is ideal for companies, NGOs, government services who have to develop fertilizer recommendations for a large number of farmers. Indeed, it is possible to:
- Provide each farmer with precise and effective formulas and doses that correspond to the real conditions in their coffee plots;
- Get results quickly and cheaply because the tool uses existing thematic maps (no more laboratory analysis);
- View the plantations on an interactive map.

The tool suite is available on a CIRAD web portal: [http://fertexpert.cirad.fr](http://fertexpert.cirad.fr)

**References :**

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