

Test soil to double your harvest

Adoptable ideas

Many farmers in Uganda do not consider soil testing crucial, yet it is one of the best ways of increasing crop production. **Agnes Nantambi** explores why farmers should embrace the practice



Testing the soil helps the farmer determine what fertiliser to apply and which crops are suited for it to ensure high yields



To test an acre of land, three samples of soil are taken from different locations

Soil testing is the basis of good crop production on any farm. The results of the tests are what helps the farmer decide on which fertilisers to apply to the soils to increase its productivity. Prof. Julius Kitungulu Zaake, an expert in soil management, fertiliser use and plant nutrition, says farmers need to ensure that their soils are tested to establish the level of the nutrients they have. Soil testing costs about sh30,000 per sample. Testing an acre requires at least three samples picked from different locations. The test establishes the nutrient composition of the soils, especially with major elements, such as nitrogen, potassium and calcium, which are key for plant growth.

Testing can be done at all agriculture research centres countrywide, including Kawanda, Namulonge in Wakiso district and all zonal agriculture research centres. Kitungulu advises that tests be done every year or whenever a farmer wants to plant a new crop. "The reason we have all these problems of pests, low yields and poor quality crops is

because the essential nutrients are depleted from the soils," he explained.

Prof. Zaake, who was speaking at the launch of organic Fertiplus fertilisers from the Netherlands, observed that depending on the results of the soil tests, a farmer can choose the best fertilisers to restore the lost nutrients.

He said: "Organic fertilisers allow the soil

to get aerated. They also allow the soil to get moisture and the roots to spread which is important because that is when they access nutrients."

He, however, cautioned that fertilisers should not be applied to soil that has been compacted because they will not be easily absorbed.

Soils being overused

He observed that Uganda's soils have been constantly used by the expanding population, yet fewer efforts have been geared at restoring lost nutrients.

"The soil productivity has diminished over the last 50 years and food production has greatly decreased," he said.

AFIRD 20 YEARS ANNIVERSARY

Activities:

- Farmers. & Schools Open Day exhibition
- HIVAIDS Testing
- Land clinic

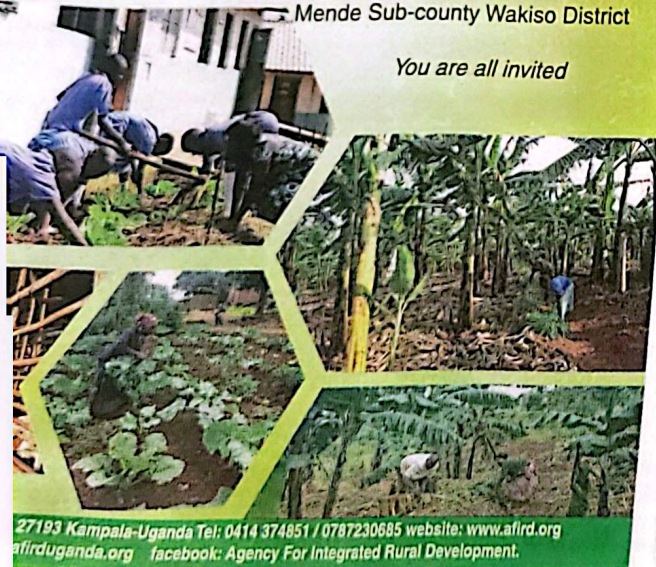
Date: 16th November 2017

Starting at: 9:00am

Venue: St. Theresia Bakka Primary School

Mende Sub-county Wakiso District

You are all invited



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Why use fertilisers?

The Minister for Agriculture, Animal Industry and Fisheries, Vincent Ssempiija, while officiating at the launch of Fertiplus at Muganzi Lwazza in Katwe, a Kampala suburb, said the fertiliser has come at a time, when the Government is striving to raise the country from a low income to middle income economy.

"Agriculture is the cornerstone to achieving vision 2020. Therefore, the growth in sector should surpass the population growth rate of 3.0% to avoid a catastrophe," Ssempiija said.

He reported that the current fertiliser use in Uganda is estimated at 2kg per hectare per year of applied nutrients compared to nutrient depletion of 80kg per hectare per year.

"This is low compared to other countries. Rwanda is at 29kg/ha, Kenya at over 35kg/ha, South Africa 60kg/ha and the Netherlands 600kg/ha of annual fertiliser usage," Ssempiija said.

To explain the poor usage of fertilisers, farmers say they are costly.

"An acre requires 50kg of NPK fertiliser if one is planting maize, at sh300,000, this is above what we can afford," Nathan Birungi, a cereal farmer in Masaka, said.

However, Zaake said while the cost of the fertilisers may be high, this money is recovered because fertilisers increase yields.

"Farmers who use fertilisers increase yields by over 50%," he said.

Explaining why it is crucial for farmers to use fertilisers, Ssempiija said the Government in its second National Development plan is targeting to increase agricultural export to \$4b by 2020 from the current \$1.3b.

"Deliberate actions, therefore, are needed to enhance agricultural production and productivity. The use of fertilisers, both organic and inorganic, is crucial towards enhancing agricultural productivity," he said.

Prof. Mondo Kagonyera, a former chancellor of Makerere University and a farmer, said: "With the use of fertilisers, we are hopeful that we shall be able to put more food on the table."

Parliament recently passed the Bio-technology and Bio-safety Act, with an intention of using the regulations to improve food production.

However, the Netherlands representative, Peace Quad, said even if countries adopt genetically modified seeds, which are believed to give higher yields than indigenous ones, without working on the soils, all the efforts will be wasted.

Stephen Byantwale Tibeijuka, the acting commissioner of crop protection in the agriculture ministry, revealed that the new fertiliser was evaluated and registered with Agricultural Chemicals Board according to the Agricultural Chemicals Control Act 2006.



Organic fertiliser. Using fertilisers can improve food security