

# IITA Herbicides Calculator

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## Summary

Widespread abuse of pesticides (herbicides inclusive) is common due to poor calibration of spray tanks. Farmers either overdose or underdose during application of pesticides. The IITA Herbicides Calculator helps farmers and spray service providers to estimate correctly, the quantity of herbicides to be added to knapsack sprayers and promotes the effectiveness of herbicides.

## Technical Description

This tool was developed using java language, ionic framework and android studio. It was thereafter tested with researchers for effectiveness and reliability.

## Uses

The tool is used for calibration for the application of herbicides and other pesticides using knapsack sprayers.

## Composition

This tool doesn't involve products or technologies with specific compositions or sequences.

## Means of application

How to use the IITA Herbicide Calculator: Enter the Dosage of the Herbicide to be sprayed in Liter per Hectare as recommended on the herbicide label Enter the Volume of Water dispensed on 10m x 10m plot. To get the Volume of Water sprayed on a 10m x 10m plot: Measure a plot of 10m x 10m =100m<sup>2</sup> Fill water in your knapsack spray tank and spray the measured area normally on a straight path with the nozzle height at your knee level. Enter the Volume of Water dispensed from your knapsack spray tank on the 10m x 10m plot. Enter the Capacity of your knapsack spray tank in Liters. Press Calculate Volume to get the exact dosage of the herbicide that should be added into your knapsack spray tank before filling the tank with water for spraying.

|                      |                    |
|----------------------|--------------------|
| <b>Agroecologies</b> | All Agroecologies. |
|----------------------|--------------------|

|                                 |   |
|---------------------------------|---|
| <b>Regions</b>                  | All Regions.  |
| <b>Developed in Countries</b>   | Nigeria.  |
| <b>Available in</b>             | Nigeria.  |
| <b>Solution Forms</b>           | Digital Application.  |
| <b>Solution Applications</b>    | Weed control, Other pest management.                        |
| <b>Agricultural Commodities</b> | Maize, Rice, Sorghum/Millet, Cowpea, Soybean, Cassava, Yam. |
| <b>Target Beneficiaries</b>     | All farmers.  |

## Commercialization

### Commercialization Category

In advanced piloting stage

### Startup Requirements

Training, android phones, data

### Production Costs

\$30000

### Customer Segmentation

Agro-chemical companies, farmers, spray service providers

### Potential Profitability

High profitability, arising from business efficiency, environmental protection and safety of applicators of pesticides.

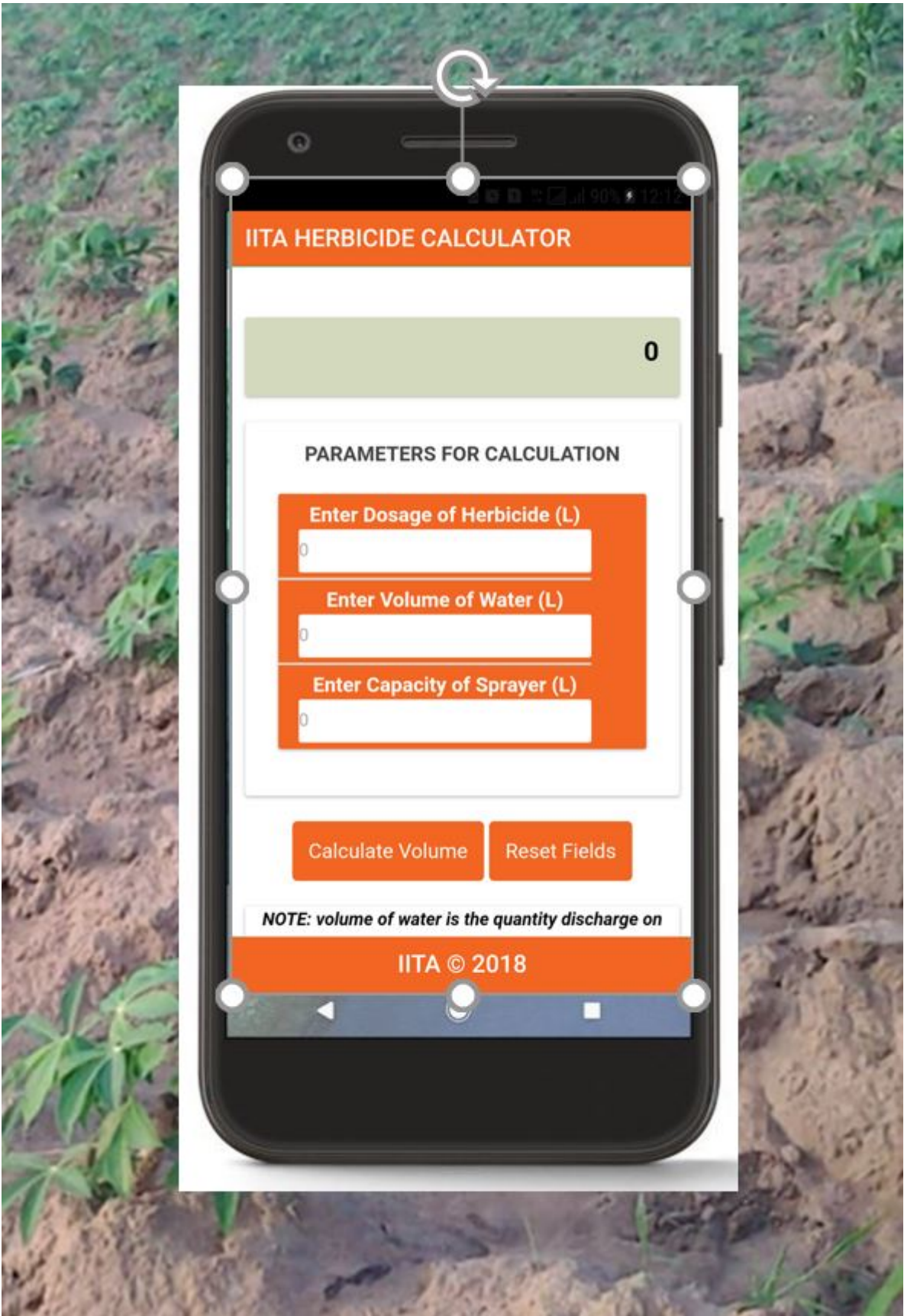
### Licensing Requirements

No

### Innovation as Public Good

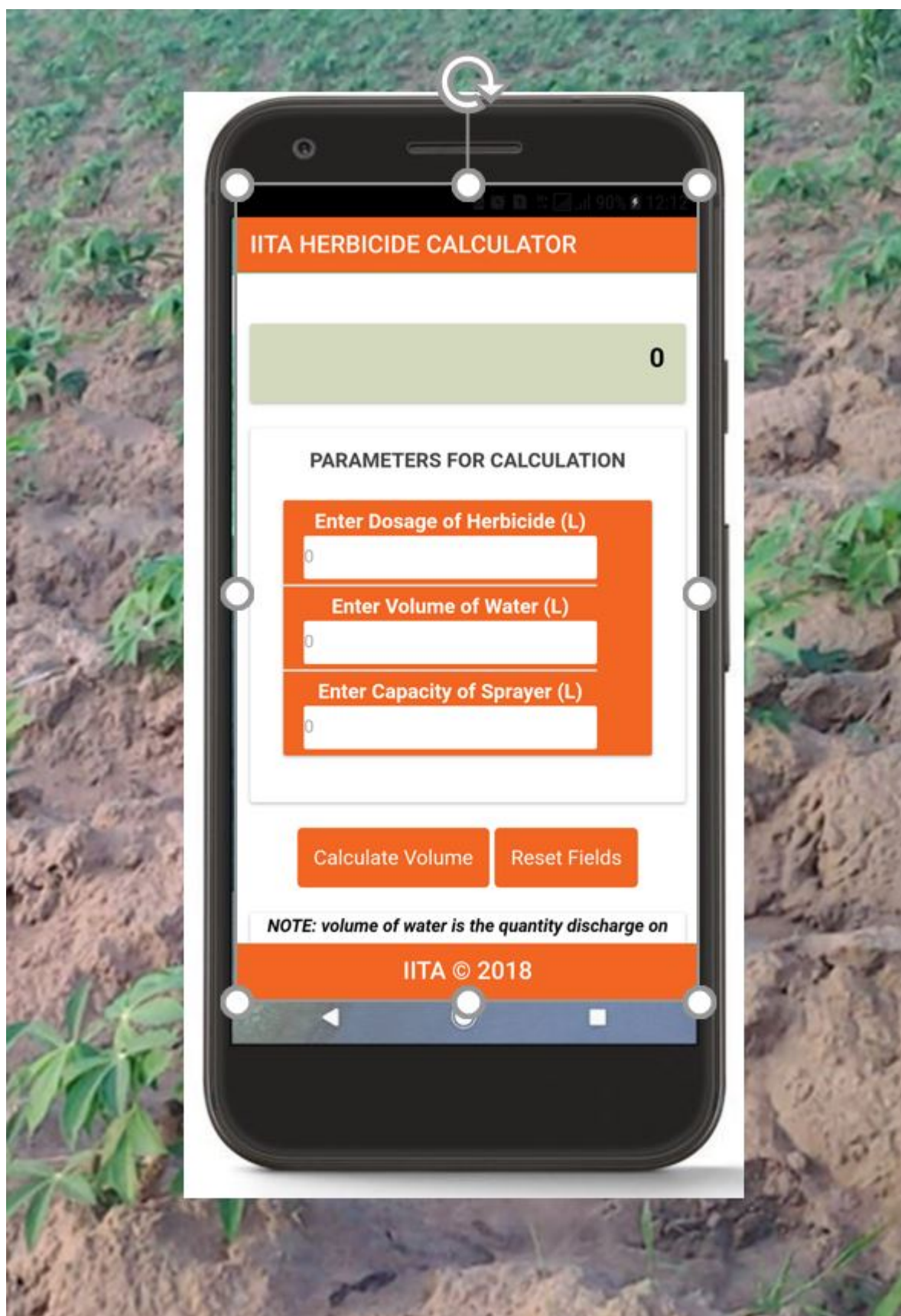
International public good, created by IITA

Solution Images









# Institutions



# Accompanying Solutions

None