

Farmers First

PHASE:	Research Station	50 – 500 farmers	1,000 – 20,000 farmers	Full Scale
---------------	------------------	------------------	------------------------	-------------------

Introduction

When chopped and cooked, collard greens (known in western Kenya as “sukuma wiki”) are a staple of most meals. Sukuma wiki translates as “push the week,” signifying its importance to the diet of many smallholder farmers. One Acre Fund began offering improved collard greens seed and plant management trainings in an effort to increase adoption of this nutritious crop. By encouraging transplanting, correct spacing, and multiple harvests, the One Acre Fund program has resulted in an increase in land committed to collard greens cultivation, as well as increased profitability per farm.



Hailey Tucker/One Acre Fund

\$8	Average profit impact per farmer	85%	Farmer participation in the program
38%	Average yield improvement per farmer	83%	Planting method compliance

Context and Trial Rationale

- Collard greens are an attractive vegetable option for farmers. It is a popular vegetable in Kenya and has good adoption rates in other East African countries. Improved seed for collard greens is also readily available.
- Improvements in dietary nutrition result from inclusion of collard greens in the local diet. This means an increase not only in yield and profit, but also in nutrient-rich food consumed.

Major Intervention Configurations

- **Planting Method:** One Acre Fund promoted the growing of collard greens to all 60,000 Kenya program farmers during the 2013 long rains. The 150 farmers who used this combination of (1) improved seed and (2) proper agronomic practices were sampled. These farmers were then compared to a 150-farmer control group growing collard greens with typical seed and agronomic practices found in the area.
- **Configurations:**
 - 1) Baseline control: farmers growing collard greens using typical inputs and inconsistent plant spacing.
 - 2) Agronomic test: 30 grams seed, seed bed planting, transplanted to 45 x 45 centimeter spacing.

Farmers First

- 3) Scale-up test: One Acre Fund program offering – 30 gram collard green seed, planted in a seed bed and transplanted to the field at 45 x 45 centimeter spacing.

A. Yield and Profit: Agronomic Results Summary

	N/ Configuration	Location/ Date	Yield	Change in Profit /Acre v. Control Farmer**
1. Control: Typical collard greens farmers	150 Farmers	Western Kenya, Long rains, 2013; Short rains, 2013	280 bunches* @ \$0.11 / bunch	+\$0
2. Agronomic test: 30g seed, seed bed planting, transplanted to 45 x 45cm spacing	150 Farmers	Western Kenya, Long rains, 2013; Short rains, 2013	203 bunches @ \$0.11 / bunch	+\$8
3. Scale-up test: Baseline agronomic configuration	51,000 Farmers	Western Kenya, Long rains, 2013; Short rains, 2013	N/A	N/A

* A “bunch” is the quantity of collard greens that is sold for \$0.11 in a particular location. This quantity varies depending on the location and month. **Profit per farmer planting collard greens

B. Farmer Adoption: Very Good

- Compliance:
 - Farmers complied with the planting technique, finding it easy to understand. One Acre Fund observed that 85% of treatment (One Acre Fund) farmers planted collard greens during the 2013 long rains season while only 52% of control (non-One Acre Fund) farmers did so during this time.
- Purchase Behavior:
 - As part of our “core” bundle, 30 grams of collard greens seed were distributed to all of the 60,000 One Acre Fund farmers in the Kenya program at a cost of \$2 USD. Of those farmers, 51,000 (85%) planted collard greens.

C. Operability at Scale: Strong Overall

One Acre Fund did not encounter any major operational challenges to scaling up the product to 60,000 farmers at an average of 30 grams seed per farmer. Suitable seed stock was readily available through East African Seed Company, and the seed was simple to store and deliver.

Next Steps

In the future, One Acre Fund will continue to:

- 1) Record and analyze harvest data from the 2013 short rains season to improve understanding of impact.
- 2) Trial new collard greens varieties, evaluating yields and farmer preferences.
- 3) Modify farmer behavior by distributing seed in three packages linked together, encouraging three separate plantings during the year. This may lead to diversification against seasonal rainfall and price risk.
- 4) Scale up the collard greens offering to 80,000 Kenyan farmers in 2014.