**Background**

Agroforestry is the practice of incorporating trees into agricultural landscapes. Trees offer a variety of benefits for smallholder farmers. They provide a source of fuel wood for domestic cooking, timber for construction, shade, fruit (e.g. mangos, avocados), fodder for livestock, and green manure for improving soil fertility. These products contribute to food and financial security for smallholder farmers. In addition, trees provide several environmental benefits. These include increasing on-farm biodiversity, protecting the soil from erosion, and sequestering atmospheric carbon in their biomass.

**I. Results Summary**

- **Primary product configuration tested**: One Acre Fund distributed 10g (roughly 600 seeds) of Grevillea tree seed along with four trainings to 60,696 farmers in the 2013 long rains season.

- **Current survival rate**: Currently emergence rates and seedling survival is low. Eight months after planting in 2014, the average One Acre Fund farmer has 30 trees remaining.

- **Potential value of intervention**: Despite low emergence, at current year-one survival rates of 24 trees per farmer, if farmers keep their trees for six years they will have an net primary value (NPV) of $46 USD and a margin of 231 percent (this assumes a discount rate of 30 percent and a modest additional tree loss between Years one and six—see the economic model on page 5 for further details).

- **2014 trials**: We believe it is possible to improve the seedling survival rate to 100 trees per farmer. Operationally, we have overhauled our entire tree seed supply chain. We are significantly improving the planting technique and are putting greater emphasis on trainings and interventions to increase farmers’ retention of trees through six years. In addition we are exploring the potential value of adding fodder trees for livestock feed and fruit trees for human consumption into the total tree package.

**II. Product Rationale and Approach**

- **Purpose**: We believe that trees are potentially powerful products for farmers. The demand for timber and firewood make trees one of the most profitable products available to farmers, and also one of the most urgently needed natural resources for continued economic growth in East Africa. In addition, alternative tree species can provide multiple benefits; fodder trees produce livestock feed (e.g. Calliandra and Sesbania) and can be used as a green manure to improve soil fertility. Fruit trees (e.g. avocado and mango) diversify household nutrition and income streams.

- **Rationale**: Agroforestry provides one of the highest returns per land unit of any activity the farmers we work with can undertake. Typically, tree seedling production is considered to be a high-skill activity that is constrained to tree nurseries. With the One Acre Fund trainings and techniques, we believe that smallholder farmers can affordably produce their own seedlings and successfully establish their own trees. Because of the continuing deforestation of many parts of Sub-Saharan Africa, trees represent an important resource base that is important to national economic growth. In addition, planting trees is one of the most potent tools to sequester atmospheric carbon and combat climate change.
• **Our approach:** The current commercial approach of planting trees in nurseries is effective, yet has highly limited scalability—even the largest nurseries in East Africa produce only a few million trees per year. We are interested in finding an on-farm method for planting trees from seed and getting them to survive for many years. If we can successfully work with farmers to establish 30 viable trees on the land of 200,000 farmers, this represents 6 million trees planted.

• **Product selection criteria:** This product configuration was chosen based on the four criteria of impact (incremental dollar income added to the farmer), adoption (farmer demand), complexity (ability to realize return) and operability (scale potential).

### III. Partners Consulted

For logistical reasons, it was determined that farmer-led planting was more feasible at scale compared to live tree seedling distribution. This required expert knowledge before trials could begin. The following partner institutions were consulted:

- **ICRAF** – General tree and planting information and seed storage.
- **KEFRI** – Advice on seed sourcing and treatment.
- **Kenya Forestry Seed Center** – Advice on seed testing and storage.
- **VI Agroforestry** – Advice on seed storage.
- **Swedish Agricultural University** - General tree and planting information.
- **The Greenbelt Movement** - General tree and planting information.

These organizations were extremely helpful and were excited to see their research being put into farmers’ hands.

### IV. Phase Configurations (Phases 0-3)

One Acre Fund tested grevillea trees with a standardized trial phase process as summarized below:
Table 1. Agroforestry trial program summary details.

<table>
<thead>
<tr>
<th>Phase</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td># Farmers</td>
<td>0</td>
<td>0</td>
<td>1,000</td>
<td>80,276</td>
</tr>
<tr>
<td>Yield (Trees Surviving after 12 Months)</td>
<td>N/A</td>
<td>150</td>
<td>100</td>
<td>24</td>
</tr>
<tr>
<td>Final Yield (Trees Surviving to Year 6)</td>
<td>N/A</td>
<td>112</td>
<td>75</td>
<td>18</td>
</tr>
<tr>
<td>Income (NPV if harvested in year 6)</td>
<td>N/A</td>
<td>$390</td>
<td>$254</td>
<td>$46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Activities / Configurations</th>
<th></th>
<th></th>
<th></th>
<th>Major configuration tested:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Desk research</td>
<td>Research station / nursery trials</td>
<td>Planting Technique Modification</td>
<td>• 10g of grevillea seed</td>
</tr>
<tr>
<td></td>
<td>Consultation with experts</td>
<td>Operational proof-of-concept (supply chain, packaging, delivery mechanisms)</td>
<td>Sales Behavior Modification</td>
<td>• Tree bags</td>
</tr>
<tr>
<td></td>
<td>Visiting 3rd-party research stations and nurseries</td>
<td>Testing of seed planting techniques to increase germination</td>
<td>Socketing trial</td>
<td>• Trainings</td>
</tr>
<tr>
<td></td>
<td>Hypothetical economic modeling of tree product</td>
<td>• Initial estimates of trees’ impact on farmer incomes</td>
<td>• Compulsory as part of base farming package in Kenya</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Initial estimates of expected farmer adoption, product simplicity, and product operability</td>
<td>• Low tree survival rates &gt;&gt; impact</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• More consistent planting technique &gt;&gt; simplicity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Behavioral interventions &gt;&gt; adoptability</td>
<td></td>
</tr>
</tbody>
</table>

| Testing Priorities |                              |                              |                              | Operability proved to be quite reasonable given abundance of labor for repackaging and limited amount of physical materials required |
|--------------------|------------------------------|------------------------------|------------------------------|• Impact under actual farming conditions limited due to low tree survival |
|                    |                              |                              |                              | • Impact under actual farming conditions limited due to low tree survival |
A. Phase 0: Research
The first stage of One Acre Fund’s product development cycle is a research phase that compares potential intervention configurations to our four product selection and evaluation criteria:

- **Impact.** Can the product significantly increase client income?
- **Adoptability.** Are a significant number of clients willing to purchase this product?
- **Simplicity.** Is the product simple enough that all clients can achieve a consistent result?
- **Operability.** Can we scale the product with a minimal increase in operational complexity?

Preliminary surveying and exploration of the tree sector in Kenya revealed that there are four types of trees that are commonly grown and have a sufficient available seed supply. A brief synopsis of the initial research is summarized below:
Table 2. Selection criteria for the various available agroforestry species.

<table>
<thead>
<tr>
<th>Selection Criteria</th>
<th>Eucalyptus</th>
<th>Grevillea Robusta</th>
<th>Fruit Trees (Macadamia, Avocado, Mango)</th>
<th>Fodder Trees (Calliandra, Sesbania, Leucanea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>- High potential impact - High-quality hardwood with high market demand - High ROI potential as initial investment likely to be around $3 USD - Significant returns if kept for 6 years (depending on species)</td>
<td>- High potential impact - High-quality hardwood in high demand - Low water needs and beneficial to soil - Significant returns if kept for 6 years</td>
<td>- High potential impact if markets accessed - High ROI as cost of initial seedlings is low</td>
<td>- Moderate impact from firewood and fodder crop sales - Impact may also come from nitrogen fixation and erosion reduction - Impact starts around 3 months after planting</td>
</tr>
<tr>
<td>Adoptability</td>
<td>- Would need to be planted in woodlots due to high water requirements - Due to limited land size, woodlots are likely to have limited adoption - Could be a viable tree option for larger farmers who have excess land</td>
<td>- Low water needs and beneficial to soil - Can be planted as barrier crop around fields - Hence high adoption potential in limited land size areas</td>
<td>- These are large trees, so adoption would likely be dependent on land size - Farmers would also likely have concerns about market depth/access - Some export (less perishable) varieties are less tasty so may be less popular locally</td>
<td>- Less awareness amongst farmers of these varieties - Less demand as the wood is not a hardwood - Around 50% of our members have dairy cows, so adoption may be limited to these farmers</td>
</tr>
<tr>
<td>Simplicity</td>
<td>- Complexity is comparable to grevillea</td>
<td>- Trials will be required to determine a low complexity technique that produces consistent results</td>
<td>- If live seedlings were delivered, complexity of planting would be low</td>
<td>- Low complexity as seeds are strong germinators and are easily transplanted</td>
</tr>
<tr>
<td>Operability</td>
<td>- To be feasible at scale, we’d need to train farmers on how to grow seedlings - Seed supply in Kenya is uncertified but widely available - Germination is difficult</td>
<td>- To be feasible at scale we will need to train farmers on how to grow seedlings - Seed supply in Kenya is uncertified and with medium availability - Germination is difficult</td>
<td>- Grafting is a difficult process so would likely require live seedling delivering - This would be a challenge to scale - A significant market access component would be required – likely linking to export markets</td>
<td>- Can be planted as hedge crops - Can be intercropped with maize and Faidherbia Albida (ICRAF system) - Seed is widely available and easy to germinate</td>
</tr>
</tbody>
</table>
One Acre Fund determine that *Grevillea robusta* provided the best combination of impact, adoptability, simplicity, and operability. The initial research phase was also an opportunity to quantify some preliminary impact estimates. When thinking about the impact of a new product or service, One Acre Fund generally considers a variety of factors, such as farmer return on investment (ROI), incremental dollar income generated, and profit margin as a percentage.

In Phase 0, we estimated a farmer economic model as shown below. It should be carefully noted, however, that the below economic model is updated with our lower-bound estimate of ultimate tree survival (18 trees per farmer) derived from Phase 3 research described later in this memo.

### Table 3. Projected Economic Model for Grevillea Tree Product (assuming low observed tree survival rates amongst farmers in Phase 3 research).

<table>
<thead>
<tr>
<th>All figures in USD</th>
<th>Discount Rate</th>
<th>Starting Tree Seeds</th>
<th>600</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discount Rate</strong></td>
<td>30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Planting Year 0</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 5</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 6</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tree Value</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yield (% of Seeds Surviving)</td>
<td>N/A</td>
<td>4.0%</td>
<td>3.5%</td>
</tr>
<tr>
<td># of Trees</td>
<td>N/A</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>(Conservative) Sale Value per Tree</td>
<td>N/A</td>
<td>0.37</td>
<td>1.67</td>
</tr>
<tr>
<td><strong>Unrealized Asset Value of Trees</strong></td>
<td>-</td>
<td>8.88</td>
<td>35.07</td>
</tr>
<tr>
<td><strong>Costs and Labor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days of Labor</td>
<td>4.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Seed and Materials</td>
<td>2.35</td>
<td>1.18</td>
<td>0.00</td>
</tr>
<tr>
<td>Labor</td>
<td>7.06</td>
<td>5.29</td>
<td>3.53</td>
</tr>
<tr>
<td><strong>Costs Per Year</strong></td>
<td>9.41</td>
<td>6.47</td>
<td>3.53</td>
</tr>
<tr>
<td>Discounted Costs Per Year</td>
<td>9.41</td>
<td>4.98</td>
<td>2.09</td>
</tr>
<tr>
<td><strong>Discounted Asset Value of Trees</strong></td>
<td>0.00</td>
<td>6.83</td>
<td>20.75</td>
</tr>
<tr>
<td><strong>Discounted Cumulative Costs</strong></td>
<td>9.41</td>
<td>14.39</td>
<td>16.48</td>
</tr>
<tr>
<td><strong>NPV (depending on harvest year)</strong></td>
<td>-9.41</td>
<td>-7.56</td>
<td>4.27</td>
</tr>
<tr>
<td><strong>Margin (depending on harvest year)</strong></td>
<td>-100%</td>
<td>-53%</td>
<td>26%</td>
</tr>
</tbody>
</table>

1. Note that the trees do not represent a stream of positive cash flow each year, but rather only provide income to the farmer in the year they are harvested.

2. The farmer’s investment does not have one NPV or profit margin, but rather a range of possible NPVs/margins depending on the year she decides to harvest the trees.
We recognized that even with assumptions of a very high discount rate, minimal tree survival, and conservative tree resale value, the Grevillea tree product represented USD $46 in present value incremental income for a farmer—a potentially enormously impactful product if adoption, simplicity, and operability challenges could be overcome.

B. Phase 1: Research Station Configurations
Research station trials focused on identifying a low-complexity planting technique that delivered consistent results. A variety of factors were considered:

- **Seed Procurement**
  - *Scale capacity of suppliers* – Tree seed is supplied through informal seed collectors. Two primary collectors were identified who could meet our projected demands. An additional seed supplier was identified for 2014 to ease pressure to meet demand.
  - *Contracts* – Detailed contracts were created to agree on seed specifications, delivery timelines, penalties and order quantities.
  - **Result:** 800kg of seed was delivered on time and was of good quality.

*Figure 1: Foreign content matter testing—foreign matter (right) separated from tree seeds (left).*
Joseph Scarpelli/One Acre Fund.

*Figure 2: Emptying seed bags to physically check and take samples.* Joseph Scarpelli/One Acre Fund.
• **Seed Testing and Storage**
  
  o *Information from research partners* enabled the creation of a set of storage protocols
  
  o *New equipment* (moisture content testing, hermetically sealed bags, moisture controlled room) were purchased to enable protocols to be followed.
  
  o Testing KPIs and procedures were created to meet new protocols.
  
  o **Result:** 2014 germination tests are showing average emergence rates of 32% (2013 = 12%).

![Image of seed packets being packaged into hermetically sealed bags](image1.jpg)

*Figure 3: Packaging individual tree seed packets into hermetically sealed bags for storage (left); Finished, sealed bags ready for storage—stored on raised planks (right). Joseph Scarpelli/One Acre Fund.*

![Image of ambient humidity and seed moisture content meters](image2.jpg)

*Figure 4: Ambient humidity meter (left); seed moisture content meter (right). Joseph Scarpelli/One Acre Fund.*

• **Potting mixture**
  
  o *Germination vs. Seedling Health* – Trials evaluated a range of potting mixtures to see which consistently produced the optimal combination of high germination, healthy root growth and best seedling heights in the simplest manner.
  
  o **Result:** Trials found a 1/3 dry manure, 1/3 soil and 1/3 sand mixture had best average
results.

Figure 5: Tree bag with germinated grevillea seedlings. Joseph Scarpelli/One Acre Fund.

Figure 6: Examining root growth and health from various research station configurations. Joseph Scarpelli/One Acre Fund.

• **Socketing**
  
  o **Sockets** – Trials evaluated a range of socket sizes to determine which consistently produced the healthiest seedlings. Additionally, trials sought to determine the optimal type and placement of fertilizer to stimulate rapid growth.

  o Socketing trials considered a range of factors including the cost and availability of sockets, ease of use, transplanting success rates and labor required.

  o **Results**: Trials found an 8x10 inch socket with a mixture of ¼ dried manure, ¼ top soil and 2.8g of TSP produced optimal result for the best price.
• **Transplanting**
  
  o *Timing* – Trials are planned to explore the optimal heights for transplanting, appropriate timings with the rains, transplanting potting mixture and whether fertilizer increased survival rates.
  
  o **Result:** Trials found that transplanting from sockets during the rains had best survival rates.

• **Survival**
  
  o *Constraints* - Trials and surveying explored common constraints to survival such as damage from drought, animals, insects and neglect.
  
  o **Result:** Training recommendations have been improved. Further trials with termiticides are ongoing.
Yield: Our Phase 1 research suggested that under farmer conditions, low tree survival would be the norm. We estimated that of 10 grams (g) of tree seeds distributed (roughly 600 seeds), we might be able to achieve at most 150 viable seedlings.

Impact: Our economic modeling suggested that 150 viable seedlings could translate to a present value farmer profit of roughly $390 USD (if farmers waited until year six to harvest trees and assuming modest additional tree loss over those years), suggesting an extremely high impact from tree products.

C. Phase 2: Small Farmer Trial Configurations

Summary:
For farmer trials, Grevillea robusta was chosen, as it was most likely to have highest average impact and the initial highest adoption potential and strong scalability.

Initial trial:
In 2013, the baseline planting method configuration was as follows:

- 10g of Grevillea Tree Seed (600 seeds)
- Two tree bags (90kg maize bag cut in half)
- Planting Trainings (Tree bag planting, tree shed creation and transplanting)
- Sales Behavior Trainings (Tree Value Training, tree pledge)
- However, this configuration did not deliver a consistent result for farmers, resulting in a very low number of trees reaching maturity, either through poor emergence/survival or farmer behavior.

In 2014, two primary Phase 2 trial configurations aimed to rectify the situation:

- Planting Technique Modification
- Sales Behavior Modification

Planting Technique Modification (2014):

- **Aim:** Modify the planting technique so each year farmers consistently have 100 surviving seedlings

- Creating an “One Acre Fund Tree Kit”
  - 600 farmers received 15g packets of Grevillea seeds and materials to prepare tree seedling sockets. The farmers also received additional training materials on how to properly prepare the sockets.
  - 270g of Triple Super Phosphate (TSP) “Tree Fertilizer”
  - 100 large plastic sockets
- 2 tree bags *(90kg maize bags cut in half)*
- 10g Grevillea Seed

**Improved Processes and Training**

- Modified the potting mixture training to bring it in line with best practices
- Significantly improved seed procurement, testing and storage
- Re-written and simplified all the trainings to improve clarity and ease of use

Previous trials have shown that these modifications are capable of consistently enabling a farmer to have 100 strong, socketed seedlings after planting. Focus group trials at the One Acre Fund nursery showed that farmers find the trainings easy to understand and the techniques easy to use. Additionally, focus groups indicate significant behavior change potential due to the introduction of higher quality seed, sockets, and fertilizer into the tree package.

We think these modifications, combined with the promise of consistent results, will cause farmers to make a stronger commitment to seedling establishment and tree care. This new Tree Kit will cost $3.50 *(increasing the price by $2)*. The final result of this method *(100 healthy socketed seedlings)* is pictured below:

![Figure 9: Seedlings using improved planting/socketting method at 4 weeks (left) and 14 weeks (right). Joseph Scarpelli/One Acre Fund.](image)

**Results:** On average, farmers who planted socketed trees had an average of 19 more trees than the standard technique.

**Sales Behavior Modification (2013 and 2014):**

- **Aim:** Find interventions that maximize the percent of trees that are not sold until at least six years of growth. One Acre Fund farmers can sell 100 seedlings to other farmers for a profit of around $14 USD or plant the trees and realize a profit of around $254 USD (in present value) if
they sell them six years later. The challenge is communicating the benefits of waiting to farmers and developing interventions that reinforce this concept over the long term.

- **2013 Sales Behavior Trial**
  - All groups including the control were given the tree values training.
  - The test groups were given interventions designed to remind farmers about the benefits of not selling their trees. Farmers will be tracked over six years to see how many trees are sold.
    - The first test group farmers were given a tree calendar to place on the wall of the house.
    - The second test group were given a signpost to place in the field next to their trees.
  - The signpost and calendar are pictured below:

![Signpost and Calendar](image)

*Figure 10: Signpost (left) and calendar (right) to help farmers avoid temptation to sell trees early. "Subira Huvuta Heri" translates to "Patience Brings Success." Joseph Scarpelli/One Acre Fund.*

Based on the outcomes of the phase 2 research trials, the target goal is to achieve 100 viable seedlings per farmer. If 100 healthy seedlings per farmer is achieved, we expect this to translate into roughly $254 USD per farmer if farmers wait six years to harvest (assuming modest additional tree loss in years 1-6).

**D. Phase 3: Large Farmer Trial Configuration**

**Summary:**
In 2014 in Kenya, 80,276 farmers received the Grevillea Tree Package:

- 10g of Grevillea Tree Seed
• Two tree bags (90kg maize bag cut in half)
• Planting Trainings (Tree Bag Preparation, Seed Planting Training, Tree Shed Training, Seedling Hardening Training, Transplanting Training)
• Sales Behavior Trainings (Tree Value Training, tree pledge)

The Grevillea Tree package was a compulsory part of the package and cost farmers approximately $1.50 USD. This package was chosen at the time because it appeared to be the simplest way to achieve a decent result. However, we discovered a number of problems when we tested the 2013 technique under farmer conditions at significant scale:

• **Results:** 12 months after planting in 2013, the average One Acre Fund farmer in Kenya had 24 Grevillea trees remaining.

<table>
<thead>
<tr>
<th>Sample Size</th>
<th># Seedlings per Surveyed Farmer</th>
<th># Seedlings per Planting Farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>24</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 4. 2013 Performance Results (12 months).

The average emergence rate of planted seeds was only 12% due to poor seed quality and storage. Additionally, farmers reported the potting mixture used in the tree bags resulted in weak, small seedlings. To address low emergence and poor growth rates, extensive Phase 1 and 2 trials were planned in 2013 and for 2014 (See Section IV.C).

**Profit:** With 24 remaining seedlings per farmer, the profit potential of the grevillea product diminishes to roughly $46 in present value if farmers wait six years to harvest. While still a good figure, we believe we can achieve a better result through improved planting practices.

**Next steps:** Initial results from the phase 2 socketing trial are promising. The farmer socketing trial will be continued in phase 3 (district-level) in 2015. Socketing rather than direct planting of tree seeds has the potential to double the survivability of the seedlings.

V. Conclusion

A. Yield and Profit

• The hypothetical profit potential for farmers is enormous—100 surviving seedlings at Year 1 (our current goal) are equivalent to a net present value profit of at least $254 USD (assuming farmers wait six years to harvest trees and modest additional tree loss from years 1-6).
• Tree emergence and survival rates are unfortunately low, undermining potential profit for farmers. In 2013, the average sampled One Acre Fund farmer had 24 trees remaining. However,
the new socketing techniques and trainings have the potential to increase tree seedling survival by 79 percent.

- We are doubling down on improved and simplified planting methods to ensure higher survival rates, and thus impact.

B. Farmer Adoption

- 84 percent of farmers who were given tree seeds in the 2013 Phase 3 trial planted them on their farms.
- This was a high rate of adoption and suggested that farmers are interested in planting trees.
- Field surveys and interviews suggest that more farmers would plant trees and those who planted would plant more of them if the technique gave a more consistent result.
- The adoption and impact of tree sales behavior lessons is still an outstanding question that will be answered by the tree behavior trials.

C. Operability at Scale

- To operate this program at scale we:
  - Procured 800 kilograms (kg) of grevillea seed from local seed collectors
  - Sorted and repackaged it into 80,276 individual packets
  - Repackaged 121,392 tree bags
  - Distributed these bags and seed to farmers across two provinces
  - Wrote and printed over 500 Tree training booklets for Field Officers
  - Trained every farmer on tree planting and tree sales behavior

In general, the logistical complexity was manageable due to the wide availability of labor for repackaging and the small size of the inputs that needed to be delivered. Repackaging of tree seeds is pictured below:
Figure 11: Team repackaging grevillea seed into 10g farmers packs. Joseph Scarpelli/One Acre Fund.

D. Next Steps
In 2015, One Acre Fund will:

• Roll-out the Planting Modification Trial in 2015 to achieve 100 socketed, healthy seedlings per farmer.

• Roll-out a Tree Sales Behavior Trial to test more potential interventions that can help persuade and remind farmers to not sell their trees.

• Continue to evaluate our tree survival and behavior modification studies.