Bayer Crop Science: Ansal Tomatoes
Follow-Up Study

Kenya
Welcome To Your 60dB Results

We enjoyed hearing from 211 Ansai Tomatoes farmers in Kenya – they had a lot to say!

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Research Design

Bayer Crop Science aims to learn about the impact that Ansal Tomatoes is having on beneficiary farmers in Kenya and how their experiences change over time.

60 Decibels set out to learn more about this through two Lean Data studies: a baseline study conducted in 2022 and a follow-up study conducted a year later. This report has the results, analysis, and insights from the follow-up study conducted between September and October 2023.

Listening to farmers’ voices during the follow-up study provided key insights into their journey with Ansal Tomatoes over the last 12 months.

<table>
<thead>
<tr>
<th>Lean Data Study</th>
<th>Baseline</th>
<th>Follow-Up</th>
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<tbody>
<tr>
<td>Sample Size</td>
<td>418 farmers</td>
<td>211 farmers (subset of respondents from baseline)</td>
</tr>
<tr>
<td>Farmer Profile</td>
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<tr>
<td>Harvest Productivity</td>
<td>✓</td>
<td>✓</td>
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<td>Farmer Satisfaction</td>
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<td>✓</td>
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<td>Impact Performance</td>
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<tr>
<td>Training Sources</td>
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<tr>
<td>Training Experience</td>
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<td>✓</td>
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<tr>
<td>Climate Resilience</td>
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At the follow-up, farmers report sustained impact, with room to scale satisfaction by addressing their challenges and expanding training reach.

**Gender**
- 9% female farmers served (vs. 18% at baseline)

**Impact**
- 52% quality of life ‘very much improved’ (vs. 52% at baseline)
- 41% talk about improved farming outcomes or higher yields
- 37% say they are able to afford education

**Self-Reported Outcomes**
- 28% ‘very much improved’ (vs. 33% at baseline)

**Way of Farming**

**Farmer Voice**
“Ansal seeds have a very good rate of production. If you compare it with other seeds in the market, I get more value for my money from Ansal.” - Male

**Data Summary**
Ansal Tomatoes Performance: 211 farmer phone interviews in September-October 2023 in Kenya. Quintile Assessment compares Project Performance with 60dB Farmer as Customer Benchmark comprised of 33 companies, 11 countries, and 7,700+ farmers. Full details can be found in Appendix.

**Net Promoter Score®**
- 39 (vs. 48 at baseline)

**Challenges**
- 35% report challenges (vs. 51% at baseline)

**Money Earned**
- 50% ‘very much increased’ (vs. 55% at baseline)

**Production**
- 59% ‘very much increased’ (vs. 50% at baseline)

**Performance vs. 60dB Benchmark**
- TOP 20%
- TOP 40%
- MIDDLE
- BOTTOM 40%
- BOTTOM 20%
Top Insights

1. While farmers report improved harvests at the follow-up, changes in their way of farming and quality of life have remained consistent.

   At the follow-up, farmers report harvesting 178 boxes of tomatoes on average, compared to 161 at the baseline. 90% of farmers recognize Ansal’s contribution to increased production (vs. 78% at baseline). However, 61% of farmers report way of farming improvements, which is a decrease from 73% at the baseline. There are no significant changes in the proportion of farmers reporting higher earnings, reduced stress, or improved quality of life over time. See pages 11, 14, 16 to 19.

2. Absolute wastage and decay durations are comparable over time. Farmers continue to perceive Ansal’s role in minimizing losses.

   On average, the proportion of harvest wastage has remained consistent over time, with the majority saying they waste less than a quarter of their yield. Similarly, farmers report that their tomatoes go bad after an average of 16 days, which is comparable to the baseline. In line with the baseline findings, 80% of farmers say that their harvest wastage would be worse without Ansal Tomatoes, and 83% of say the same about their decay durations. See pages 12 and 13.

3. 3 in 10 farmers received trainings over the past year. They report deeper impact compared to others.

   The majority of farmers who received trainings report field visits by Amiran or Seminis as the top sources. 81% of trained farmers say that they could apply ‘all’ or ‘most’ of the information to their farm and are generally experiencing better outcomes across impact indicators such as way of farming, production, as well as preparedness to deal with future climate shocks. See pages 22 and 23.

4. Farmer satisfaction with Ansal has diminished over time, but so has the challenge rate.

   Due to a higher proportion of Passives, Ansal Tomatoes has a Net Promoter Score (NPS) of 39 at the follow-up which, while favorable, is lower than the baseline NPS of 48. The top value drivers are improved production and resistance to pests or diseases. At the same time, fewer farmers report challenges at the follow-up compared to the baseline (35% vs. 51%). While this is an improvement over the past year, this still ranks in the bottom 20% of the 60dB Agriculture Benchmark. See pages 24 to 27.

5. Although farmers are now more aware of Ansal’s environmental benefits, there is room to improve their preparedness in the face of climate shocks.

   52% of farmers at the follow-up say that working with Ansal has environmental benefits (vs. 30% at the baseline). While they are aware of these benefits, more than half of all farmers are still recovering from a climate shock and say that Ansal had ‘no effect’ on their current recovery or preparedness in the case of future shocks. Resilience and recovery-focused trainings are good avenues to drive deeper impact among farmers. See pages 30 to 36.
## Farmers’ Voices

We love hearing farmers’ voices. Here are some that stood out.

### Impact Stories

94% shared how Ansal Tomatoes has improved their quality of life

- "Farming Ansal Tomatoes has changed a lot in my life. I come from a community of pastoralists, and we measure our wealth in terms of the number of cattle we own. With the profits from Ansal, my home is filled with cows, sheep and goats. I also serve as an example to other people in my community that we can also farm to make money rather than just keeping cattle." - Male

- "I have become more financially stable and have been able to start a secondary business using the money I earned from selling the tomatoes. I have also been able to buy a plot of land." - Female

### Changes in Farming

61% of report that their way of farming has improved because of Ansal Tomatoes

- "We have reduced the amount of chemicals we spray on our tomatoes because Ansal is more resistant to diseases. I am spraying but only a little. I also try to get seeds that are disease-resistant for planting." - Female

- "An agronomist from Amiran had visited my farm and advised me on how to use pesticides when it rains and what to do when there is no rain. Additionally, I space my crops so that it can have enough lighting and the tomatoes can also grow big." - Female

### Opinions on Value Proposition

46% were Promoters and highly likely to recommend

- "Ansal seeds perform better on the farm because they produce high yield, their fruits are durable, and their plants produce fruits for more than two months after the first harvest. My customers like them more because they last longer when stored well." - Female

- "Since I discovered Ansal tomatoes, I have not planted any other variety because they produce fruits for a long time and the tomatoes grow to be very big." - Female

### Opportunities for Improvement

35% faced challenges with Ansal Tomatoes

- "Bacterial wilt reduces my harvest. My leaves also become yellow when they don’t get enough sun. They are also affected by blight occasionally." - Female

- "The seed variety I used most recently gave me very poor yield. I went from 700,000 KES in sales to 200,000 KES. My production reduced drastically." - Male
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- **Farmer Experience**
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  - > Value Perception

- **Climate Resilience**
  - > Environment Benefits
  - > Climate Shocks and Recovery
  - > Preparedness for Shocks

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“Ansal taught me how to implement correct spacing while farming. This ensures that the plants get enough space to produce a lot of fruits.” - Male
Demographics

The majority of farmers we spoke to at the follow-up are male. More than half have been working with Ansal Tomatoes for longer than 3 years.

The follow-up study sample consists of ~50% of the farmers we spoke to at the baseline. Data related to farmer age, tenure, and household size have been sourced from the baseline study. Overall, the demographic breakdown of the follow-up sample resembles that of the baseline. The proportion of female farmers has somewhat reduced compared to the baseline (9% vs. 18%). However, the average age has remained consistent (42 vs. 41), and so has tenure after accounting for the gap in time between the two rounds.

Note: Results in this report have been segmented by baseline and follow-up. Statistically significant differences have been reported. The N value signifying sample size may vary based on the survey logic and the number of farmers who chose to skip a question or were unable to answer it.

About the Ansal Tomatoes Farmers We Spoke With
Data relating to farmer characteristics (n = 211)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>91%</td>
<td>9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>29 years or less</th>
<th>30-49 years</th>
<th>50 years or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>3%</td>
<td>80%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Tenure of Engagement
- Less than 3 years (45%)
- 3 or more years (55%)

Average Household Size

5.2

Region
- Central (42%)
- Eastern (24%)
- Rift Valley (14%)
- Others (20%)
Income Profile

Ansal Tomatoes is reaching relatively higher income households compared to the Kenyan national average.

Using the Poverty Probability Index® we measured how the income profile of your farmers compares to the Kenya national average.

Kenya is classified by The World Bank as a lower-middle income country, so the $3.20 line is considered the poverty line. Ansal Tomatoes is serving relatively well-off farmers compared to the national and rural population.

At the follow-up, Ansal Tomatoes has a national Inclusivity Ratio of 0.77, which is slightly higher than the 0.72 recorded at the baseline.

Income Distribution of Ansal Tomatoes Relative to Kenya
% living below $xx per person / per day (2011 PPP) (n = 210)

Inclusivity Ratio
Degree that Ansal Tomatoes is reaching low-income farmers in Kenya.

0.77

We calculate the degree to which you are serving low-income farmers compared to the general population.  
1 = parity with national population  
>1 = over-serving  
<1 = under-serving

See Appendix for calculation.
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- Climate Resilience
  - Environment Benefits
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“I practice crop rotation to let the soil settle because tomatoes get affected by more soil diseases with regular soil use.” - Male
Harvest Productivity: Overview

On average, farmers at the follow-up harvested 178 boxes of tomatoes in the most recent season. 76% say it’s ‘much more’ than what they would have harvested without Ansal.

While the average boxes of tomatoes harvested is higher at the follow-up, the variation in yield has reduced i.e. most farmers report harvesting 150 boxes or less. This is due to a higher proportion of farmers at the follow-up reporting the exact number of boxes harvested, compared to the baseline, where most farmers reported ranges.

When comparing farmers reporting exact numbers** in the baseline and follow-up, we see a significant increase in production at the follow-up (173 vs. 81 boxes). This is mirrored by follow-up farmers being more likely to say that their harvest is ‘much more’ compared to what it would be without Ansal (76% vs. 57%).

This indicates that, over time, both absolute yield and perception of productivity have seen improvements.

**57 farmers

*Average calculated based on mid-points of ranges.
Harvest Productivity: Waste

Similar to the baseline, on average, farmers at follow-up report losing ‘a little bit’ of their most recent harvest. 54% say that this is ‘much lower’ than what they would have wasted without Ansal Tomatoes.

Across the baseline and follow-up, the majority of farmers report wasting less than 25% of their harvest. Similarly, the proportion of farmers who say that their waste is lower than what it would be without Ansal has stayed the same.

Among those who were able to report their exact percentage of wasted harvest**, farmers at the follow-up report 9% of waste, compared to 6% at the baseline.

16% of farmers at the follow-up say that their wastage is higher than what it would have been without Ansal, which is also an increase since the baseline. This suggests that wastage potentially increased for some farmers at the follow-up or perhaps their expectations about wastage have shifted.

**25 farmers

*Average calculated based on mid-points of ranges.
Harvest Productivity: Decay

On average, farmers say that their tomatoes went bad after 16 days of harvest, which is similar to the baseline. 67% say this is longer than what it would be without Ansal.

When farmers were asked to compare the decay duration to what it would be without Ansal, 67% of farmers at the follow-up say that the window is much longer with Ansal, compared to 63% of farmers at the baseline.

Despite some farmers at the follow-up potentially expecting longer decay windows with Ansal (12%), the results still show a positive trend.

External factors such as bad weather or drought could alter outcomes and thereby, farmer perceptions.

Days Before Loss

Q: Think about the last batch of tomatoes you harvested. Roughly how many days after harvest did these tomatoes go bad, that is, they were not fit for eating or selling?
(Baseline = 418, Follow-up = 207)

<table>
<thead>
<tr>
<th>Days Before Loss</th>
<th>Baseline</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 days</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>6-10 days</td>
<td>14%</td>
<td>28%</td>
</tr>
<tr>
<td>11-15 days</td>
<td>28%</td>
<td>49%</td>
</tr>
<tr>
<td>More than 15 days</td>
<td>34%</td>
<td>40%</td>
</tr>
</tbody>
</table>

16 days on average* (vs 15 at the baseline)

Comparison to Loss With Ansal

Q: Were these more, less or about the same as what would happen without Ansal Tomatoes?
(Baseline = 414, Follow-up = 203)

- Much fewer: 12%
- Slightly fewer: 9%
- Same: 13%
- Slightly more: 18%
- Much more: 63%

*Average calculated based on mid-points of ranges.
Way of Farming: Overview

At the follow-up, 61% of farmers report improvements in their way of farming, which is slightly lower than the baseline (73%).

Perceived Way of Farming Change

Q: Has your way of farming changed because of Ansal Tomatoes? Has it: (Baseline = 418, Follow-up = 211)

- Got much worse
- Got slightly worse
- No change
- Slightly improved
- Very much improved

Very much improved:
“...apply smaller amounts of fertilizer and more manure to reduce soil acidity. I spray my farm twice a month to avoid over spraying. I also space my crops well to increase flowering and production.” - Male

Slightly improved:
“I space my tomatoes better for higher yield and leave them with ample room for flowering. I experience better germination and growth rates.” - Male

No change:
“I have not received any training from Ansal [in the last 12 months]. I rely on my own knowledge and experience.” - Male
Way of Farming: Top Outcomes

Farmers were asked to describe how and why their way of farming had changed because of Ansal Tomatoes. The top positive outcomes are shown on the right. Others included:

- Reduced chemical usage (19%)
- Lower fertilizer usage (10%)
- Improved crop rotation (9%)

Farmers who report their way of farming to have gotten worse mainly attribute this to increased pesticide and fertilizer usage (10 farmers).

Improved pest and disease management is the top way of farming improvement. Farmers reporting no change in their practices are resistant to modify their current methods.

Top Reasons for Improvements

Q: Please explain how your way of farming has improved. (n = 128). Open-ended, coded by 60 Decibels.

30% mention improved pest and disease management
   (18% of all farmers)

26% report practicing better crop spacing
   (16% of all farmers)

23% talk about improved application of fertilizers
   (14% of all farmers)

“I now know how to apply pesticides and I spray twice a week with better outcomes. I get less fungal diseases.”
- Male

Top Reasons for No Change

Q: Please explain how your way of farming has improved. (n = 73). Open-ended, coded by 60 Decibels.

37% are unwilling to change existing methods
   (13% of all farmers)

36% lack knowledge of new methods
   (12% of all farmers)

30% mention limited training and guidance from Ansal
   (10% of all farmers)

“I farm the same way I always do. I use the same skills. Moreover, Ansal hasn’t provided me with training.”
- Male
Crop Production

At the follow-up, 92% of farmers report increased crop production. 61% realized the increase using the same land, suggesting an increase in productivity.

Compared to the baseline, a higher proportion of farmers at the follow-up report an increase in their total production because of Ansal (92% vs. 86%).

Farmers who received trainings from Ansal are more likely to say that their production has ‘very much increased’, compared to farmers who were not trained in the last 12 months (70% vs. 55%).

Despite fewer farmers at the follow-up reporting way of farming improvements (see page 14), a perceived increase in production since the baseline indicates that farmers may be reaping the benefits of changes made to their farming practices a year ago.

Impact on Production

Q: Has the total production from your crop changed because of Ansal Tomatoes? (Baseline = 418, Follow-up = 211)

- TOP 20%

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Follow-up</th>
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<tbody>
<tr>
<td>Very much decreased</td>
<td>9%</td>
<td>36%</td>
</tr>
<tr>
<td>Slightly decreased</td>
<td>33%</td>
<td>50%</td>
</tr>
<tr>
<td>No change</td>
<td>66%</td>
<td>92%</td>
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Reasons for Increase in Production

Q: Was this increase because you planted additional land or was it from the same amount of land?* (Baseline = 362, Follow-up = 194)

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<thead>
<tr>
<th>Reason</th>
<th>Baseline</th>
<th>Follow-up</th>
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<tbody>
<tr>
<td>Same land</td>
<td>63%</td>
<td>61%</td>
</tr>
<tr>
<td>Additional land</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>Both*</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*The option of selecting ‘both’ was introduced at the follow-up.
Income Change

Similar to the baseline, 90% of farmers report an increase in their crop earnings. Nearly all of these farmers mention an increase in volume sold as the top reason for this change.

When asked to explain what drove improved earnings, nearly all farmers across the baseline and follow-up talk about increase in volume sold.

However, fewer farmers at the follow-up mention increased price and lower cost. This may explain why the extent of improvement has marginally decreased at the follow-up.

Farmers who reported no change in their incomes largely attributed this to bad prices received for their produce.

Changes in Income
Q: Has the money you earn from your crop changed because of Ansal Tomatoes? (Baseline = 418, Follow-up = 211)

- TOP 20%

Reasons for Increased Returns
Q: What were the main reasons for the increase in money earned? Select all that apply. (Baseline = 379, Follow-up = 188)

- Increase in volume
- Increase in price
- Reduced cost
- Other reasons

Very much increased
Slightly increased
No change
Slightly decreased
Very much decreased
Livelihood Stress

90% of farmers say their level of stress about meeting their family’s basic needs has decreased because of Ansal Tomatoes, which is a slight improvement since the baseline.

Compared to the baseline, a slightly higher proportion of farmers at the follow-up say that they are less stressed about meeting their families’ basic needs (90% vs. 80%).

Farmers who report the following improvements are more likely to say their livelihood stress has ‘very much decreased’ compared to others:

- Higher harvest productivity because of Ansal: (52% vs. 14%)
- Decayed lower because of Ansal (80% vs. 46%)
- Extended longevity with Ansal (69% vs. 47%)

Impact of Ansal Tomatoes on Livelihood Stress

Q: Has how stressed you feel about meeting you family’s basic needs changed because of Ansal Tomatoes? (Baseline = 418, Follow-up = 211)

```
8% Very much increased
10% Slightly increased
28% No change
40% Slightly decreased
50% Very much decreased
90%
```

“I have been able to take my kids to school because of Ansal. I also eat well and dress well now. We even built a house with the money we earned.”
- Female

“I bought land, built a home, educated my kids, took care of my family all while investing in farming and other businesses.”
- Male

“I gave been able to sell more tomatoes because they are of great quality. I was able to expand my farming and lease more land to do more tomato farming.”
- Male
Quality of Life: Overview

With improvements in production and lower livelihood stress, Ansal farmers are experiencing meaningful quality of life improvements.

Ansal Tomatoes ranks in the top quartile of 60dB’s Global Agriculture Benchmark for quality of life. Find out more about what farmers had to say on the next page!

52% of farmers at the follow-up say that their quality of life has ‘very much improved’ because of Ansal Tomatoes, which is consistent with the baseline.

Perceived Quality of Life Change

Q: Has your quality of life changed because of Ansal Tomatoes? Has it: (Baseline = 413, Follow-up = 211)

- TOP 20%

```
52%  \n52%  \n42%  \n37%  \n6%  5%
\Got much worse \Got slightly worse \No change \Slightly improved \Very much improved

“Ansal Tomatoes has helped me uplift my life! I have now opened a furniture shop which is giving me additional income.” - Male

“I bought 3 acres of land for farming as well as plenty of livestock for rearing and sustaining my family: 5 cows, 30 goats and over 100 chickens. I sell these livestock when there is excess and earn extra income. I now have a consistent income that takes care of my family.” - Female
```
Quality of Life: Top Outcomes

The top quality of life outcomes are shown on the right. Others include:

• Ability to afford a house / property (31%)
• Improvements in income (25%)

Among the farmers reporting ‘no change’ in their quality of life, the majority talk about poor harvests due to issues faced with Ansal seeds. The 2 farmers who report that their quality of life got worse cite increased farming costs due to expensive seeds.

Farmers talk about better farming outcomes and the ability to afford education as the top drivers of improved quality of life.

Top Outcomes for 94% of Farmers Who Say their Quality of Life Improved
Q: Please explain how your quality of life has improved. (n = 198). Open-ended, coded by 60 Decibels.

43% talk about improved farming outcomes or higher yield
(41% of all respondents)

“The more I harvest, the more income I make. I was able to buy a generator and lease extra land for farming because of income from Ansal.” – Male

40% mention their ability to better afford education
(37% of all respondents)

“I can comfortably pay school fees for my children. One has even cleared university with the school fees raised from the sale of Ansal tomatoes. I am truly grateful for the great production levels.” – Male

35% can afford household bills and other basic needs
(33% of all respondents)

“I live a more comfortable life since I can buy most things I need. For instance, I can easily buy furniture when it is needed in my house.” – Male
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"I would recommend the Ansal Tomato seeds because the plants do not wilt and they are resistant to a lot of tomato diseases." - Female
Training Experience: Overview

30% of farmers at the follow-up say that they were trained on Ansal Tomatoes in the last 12 months. The majority of them are being trained through Amiran and Seminis.

Compared to the baseline, fewer farmers at the follow-up report receiving trainings on Ansal in the last 12 months (30% vs. 49%).

To understand training sources, we asked farmers an open-ended question about how they received their training. Their responses were then categorized into distinct themes, as shown to the far right.

The majority of farmers at the follow-up receive training through farm visits, field days, and demonstrations. This is in contrast with the baseline, where a majority of farmers were trained through word of mouth from other farmers.

**Proportion of Trained Farmers**

Q: Have you received a training on Ansal Tomatoes in the last 12 months? (n = 211)

- Yes: 30%
- No: 70%

**Sources of Training**

Q: How did you receive training/information on Ansal Tomatoes? (n = 63)

- Visit on farm by Amiran: 35%
- Visit on farm by Seminis: 30%
- Attended a field day: 27%
- Attended demonstration farm: 25%
- Word of mouth from other farmers: 22%
- Visit on farm by agro dealer: 14%
- Seminar by Amiran/Seminis: 5%
- Other: 5%
Training Experience: Application

At the follow-up, 59% of farmers who received trainings were unable to apply all of it, primarily due to lack of funds.

To better understand the applicability and relevance of Ansai’s training, we asked farmers about the extent to which they applied the training information to their farming practices.

While 41% of farmers say that they could apply all of the information, 62% of those who could not apply all of it identify lack of funds or relevant material and equipment as a barrier to training application. Supporting farmers in procuring the recommended equipment can enhance training application.

We find that there are no meaningful differences in training application by the source of training, or farmer demographics.

Training Application
Q: How much of this training information did you apply to your farming practices? (n = 63)

- 19% None of it
- 40% Some of it
- 41% Most of it
- 59% All of it

Barriers to Application
Q: Would you mind sharing with me what prevented you from applying all of the training information? Select all that apply. (n = 37)

- No credit or money: 46%
- Recommended material or equipment not available: 27%
- Information not clear: 24%
- Do not trust information: 5%
- Other: 14%
Farmer Satisfaction: Overview

It is worth noting that the lower NPS at the follow-up is driven by a greater proportion of Passives" (47%). Farmers who receive trainings from Ansal Tomatoes report higher satisfaction compared to farmers who did not receive training (NPS of 52 vs. 35). This underscores the importance of supplementary services such as trainings in sustaining satisfaction levels.

Ansal Tomatoes has a Net Promoter Score® of 39, which is good, but lower than the baseline.

Net Promoter Score® (NPS)
Q: On a scale of 0-10, how likely are you to recommend Ansal Tomatoes to a friend, where 0 is not at all likely and 10 is extremely likely? (Baseline = 418, Follow-up = 211)

Promoters
“It has been three years since I started planting Ansal seeds and I can attest to their quality. They can grow anywhere; the sizes of the fruits are big, and they have hard skin. I also like Ansal because it always has a ready market.” - Male

Passives
“The seeds used to produce big tomatoes but nowadays, they produce smaller tomatoes. However, the production is still high. As for pests and diseases, Tuta absoluta has been a big problem. Even the crop inputs we were told to use have not helped.” - Female

Detractors
“Ansal should ensure that its plants stop turning yellow. At first it was very good, but now it seems like they have lowered the quality of seeds.” - Male

*Farmers providing a rating of 7 or 8 out of 10 when asked about their likelihood of recommending Ansal to others. Find out more about how NPS is calculated in the Appendix.*
Farmers Satisfaction: NPS Drivers

Promoters and Passives value the higher tomato yields because of Ansal. Detractors complain about the inconsistent quality of seeds.

46% are Promoters : )

They love:
1. Higher tomato yields (46% of Promoters / 22% of all farmers)
2. Resistance to pest & diseases (40% of Promoters / 19% of all farmers)
3. Long shelf life without spoilage (39% of Promoters / 18% of all farmers)

“Ansal produces a larger quantity of fruits compared to other local seeds. The fruits stay fresh for more than six weeks after harvesting without getting spoilt. The seeds also produce very big fruits.” – Female

47% are Passives :(

They like:
1. Higher tomato yields (61% of Passives / 28% of all farmers)
2. Long shelf life without spoilage (34% of Passives / 16% of all farmers)
3. Thick-skinned, durable fruits (29% of Passives / 14% of all farmers)

“It is durable and has a very long shelf life without interference from birds or pests. It has a good dark red shade that does well in the market and attracts buyers. It ripens evenly and has no patches.” – Male

7% are Detractors :

They want to see:
1. More consistent yields (71% of Detractors / 5% of all farmers)
2. Longer harvesting spans (36% of Detractors / 5 farmers)
3. Larger tomato fruits (36% of Detractors / 5 farmers)

“I used to like Ansal’s seeds because their plants hardly get sick. However, the recent batch of seeds did not grow well. Less than 100 seedlings germinated. On top of this the prices for Ansal seeds have also gone up.” – Male
Challenges: Overview

35% of farmers at the follow-up report experiencing a challenge with Ansal Tomatoes. Of this group, only 14% have had their challenges resolved.

Despite a drop in NPS, a much lower proportion of farmers at the follow-up report challenges with Ansal Tomatoes compared to the baseline (35% vs. 51%).

It is possible that farmer satisfaction is less likely to be impacted by challenge rates and driven by other factors instead (such as sustained production).

At the follow-up, the proportion of farmers experiencing challenges with Ansal does not significantly vary by region.

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**Farmers Reporting Challenges**

Q: Have you experienced any challenges with Ansal Tomatoes? (Baseline = 418, Follow-up = 211)

- 51% of farmers reported challenges in the baseline.
- 35% of farmers reported challenges in the follow-up.

**Challenge Resolution**

Q: Has your challenge with Ansal Tomatoes been resolved? (n = 73)

- 86% of those reporting challenges have resolved them.
- 14% of those reporting challenges have not resolved them.
Challenges: Top Issues

We asked farmers to describe—in their own words—the challenges they have experienced with Ansal Tomatoes. The top challenges are shown on the right. Others included:

- Counterfeit seeds (12%)
- General vulnerability to pests (12%)
- Susceptibility to Tuta Absoluta (10%)

Compared to the baseline, fewer farmers at the follow-up report the infestation by pests as a key challenge. More than half of all farmers reporting challenges from the Central region complain about blight, which is higher than other regions.

Of those who experienced a challenge with Ansal Tomatoes, the most common issues mentioned are yellowing of tomato plants and inconsistent yield.

Most Common Issues for 35% of Farmers Who Experienced a Challenge

Q: Please briefly explain the challenge you have faced. (n = 73). Open-ended, coded by 60 Decibels.

43% report yellowing of plant or blight
(15% of all respondents)

“Yellow leaves have been too much. Once it attacks the plant, it either bears small tomatoes or stops bearing any and dries up.”
- Female

26% mention inconsistent yield
(9% of all respondents)

“After the harvest, the plants deteriorate very quickly instead of yielding again.”
- Male

15% talk about high prices of Ansal seeds
(5% of all respondents)

“The price we pay for Ansal seeds is very high. At first, we used to get the five-gram sachets at KES 3000. Now, we only find the ten grams sachets at KES 7000.”
- Male
Perceived Value

Similar to the baseline, 85% of farmers at the follow-up find the value offered by Ansal Tomatoes to be ‘very good’ or ‘good’.

The proportion of farmers who find Ansal to offer good value has remained consistent over time.

Improvements in way of farming are positively linked to value perception. Farmers who say that their way of farming has ‘very much improved’ are more likely to find the value offered by Ansal to be ‘very good’ as compared to others (73% vs 37%).

Similarly, farmers who recognize Ansal Tomatoes’ environmental benefits are more likely to perceive the value offered as ‘very good’, compared to those who don’t recognize these benefits (56% vs. 27%). Find out more about farmers’ perception of environmental benefits on page 30.

Value Perception

Q: Do you think the value offered by Ansal Tomatoes is...? (Baseline = 418, Follow-up = 211)

- Very poor
- Poor
- Fair
- Good
- Very good

“Since Ansal is resistant to some diseases, I do not have to spray pesticides which have a negative effect on the soil. During crop rotation, other crops will do well where Ansal was because the soil is not contaminated.” - Male

“When I rotate crops on my piece of land where I had planted Ansal Tomatoes, I have noticed both maize and beans grow better, it’s like the soil becomes more richer after planting Ansal Tomatoes.” - Female
“Ansal seeds have high resistance to pests and this really assists in reducing the damage from a pest infestation.” - Male
Environmental Benefits: Overview

At the follow-up, 52% of farmers say that working with Ansal has environmental benefits, which is significantly higher than at the baseline.

Perceptions on Environmental Benefits

Q: Does working with Ansal Tomatoes have any environmental benefits? (Baseline = 418, Follow-up = 211)

- 59% Don’t know
- 33% No
- 29% Yes

“I don’t water my tomatoes as much which allows me to conserve it for more dire days. Due to the flowers, my plants attract bees and helps with cross pollination which benefit many other crops on farms around me.”
- Male

“There is nothing much in my environment that has changed because of farming Ansal tomatoes. We are still using inorganic fertilizers which are considered bad for the soil if we use it for a long period of time.”
- Male
Environmental Benefits: Deep-Dive

51% of farmers who recognize Ansal’s environmental benefits talk about reduced usage of fertilizers and pesticides. Those who do not perceive benefits say there is no tangible change in their farm outcomes.

Farmers who report positive environmental benefits often talk about these in the context of improved farming practices, such as reduced usage of fertilizers or water conservation, rather than expected outcomes such as drought-resistant tomato plants or minimal post-harvest spoilage. Perhaps farmers view environmental benefits as a positive externality resulting from the improved farming practices that Ansal has encouraged.

Farmers who report no environmental benefits lack tangible evidence of improvements in their farm despite using Ansal.

### Perceived Environmental Benefits
Q: Could you please describe these benefits? Open-ended, coded by 60 Decibels (n = 109)

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced usage of fertilizers or pesticides</td>
<td>51%</td>
</tr>
<tr>
<td>Improved soil quality</td>
<td>40%</td>
</tr>
<tr>
<td>Improved water conservation</td>
<td>17%</td>
</tr>
<tr>
<td>Composting of trees and branches</td>
<td>11%</td>
</tr>
<tr>
<td>Adoption of organic fertilizers</td>
<td>8%</td>
</tr>
<tr>
<td>Improved biodiversity (ex: via bee pollination)</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Reasons for No Benefits
Q: Could you please describe why not? Open-ended, coded by 60 Decibels (n = 69)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No change witnessed</td>
<td>48%</td>
</tr>
<tr>
<td>Excess usage of fertilizers/pesticides</td>
<td>29%</td>
</tr>
<tr>
<td>High water usage</td>
<td>23%</td>
</tr>
<tr>
<td>No change in farming practices</td>
<td>12%</td>
</tr>
<tr>
<td>Soil quality got worse</td>
<td>7%</td>
</tr>
</tbody>
</table>
Climate Shocks: Overview

92% of farmers say that their household was affected by climate shocks in the past 2 years, most commonly by a drought. Of those affected, more than half are still recovering.

We asked farmers a series of questions to understand their resilience to climate shocks and whether their involvement with Ansal Tomatoes has had any impact in their ability to prepare for, adapt to, and recover from these shocks.

The most significant shocks experienced by farmer households in the last 24 months include drought, farm disease, and flooding. 56% of farmers are either still recovering or are no longer recovering from the shock.

**Shocks Experienced By Households**

Q: Which of these events affected your household the most in the last 24 months, if any? Select all that apply. (n = 211)

- Drought or severe lack of rain: 47%
- Significant pest or farm disease: 27%
- Flooding: 7%
- Irregular rainfall: 6%
- Unexpected frost: 2%
- Other*: 3%
- None: 8%

**Extent of Recovery from Shocks**

Q: To what extent was your household able to recover from this event? (n = 193)

- No longer recovering, but worse off than before the shock: 4%
- Still recovering: 52%
- Recovered and are at the same level as before shock: 24%
- Recovered and are better off than before shock: 20%
Climate Shocks: Realized Resilience

41% of farmers say that Ansal had a positive effect on their recovery from climate shocks. 32% of this group attributes this to higher yields enabled by Ansal despite the shock.

More than half of all farmers who faced a climate shock say that Ansal had ‘no effect’ on their recovery.

Farmers who said that Ansal played a positive role in their recovery were asked a follow-up question requesting them to explain their answer.

We find that consistent harvests of Ansal Tomatoes despite a climate shock plays a key role in farmers’ recovery. Farmers who report that their production has ‘very much increased’ are significantly more likely to report that Ansal had a positive effect on their recovery compared to others (52% vs. 26%).

Impact of Ansal Tomatoes on Recovery

Q: Did your involvement with Ansal Tomatoes have a positive, negative, or no effect on your recovery? (n = 193)

- Significant negative effect: 4%
- Some negative effect: 53%
- No effect: 27%
- Some positive effect: 41%
- Significant positive effect: 14%

Reasons for Positive Impact on Recovery

Q: In what ways did Ansal Tomatoes have a positive effect on your recovery? Open-ended, coded by 60 Decibels. (n = 79)

- High productivity and yield: 32%
- Resistance to pests and diseases: 24%
- Resilience in harsh conditions: 23%
- Reduced water dependency: 16%
- Agronomic support and training: 11%
- Ability to invest in irrigation: 11%
Climate Shocks: Perceived Resilience

62% of farmers say that Ansal Tomatoes has not changed their level of preparedness to deal with future shocks while 32% say that they feel more prepared.

We asked all farmers whether their preparedness for a future shock has changed because of Ansal Tomatoes.

Farmers who received trainings on Ansal are significantly more likely to feel more prepared to deal with future shocks compared to those who did not receive any training (50% vs. 23%).

Reaching farmers via targeted climate-focused trainings is a potent way of improving farmers’ preparedness to cope with shocks in the future.

Find out more about what farmers had to say on the next page!

Preparedness for Future Shocks
Q: Has Ansal Tomatoes affected how prepared you feel for such a shock? (n = 208)

- Much less prepared
- Slightly less prepared
- No change
- Slightly more prepared
- Much more prepared

“Ansal seeds are resistant to diseases and pests. I spray my crops once every 3 weeks and that aids recovery and helps the crop bounce back faster.” - Male

“Ansal doesn’t require too much water to produce fruits. This is favorable during a drought, and it will help me recover faster.” - Male

“It would be nice if Ansal visited us once in a while and we knew where their offices are so that we could go to them when we face weather-related challenges.” - Male
Climate Shocks: Resilience Changes

Farmers reporting increased preparedness for future shocks attribute it to the usage of improved seeds, while those reporting no change cite a greater need for training on climate-smart practices.

Reasons for Change in Preparedness
Q: Can you please explain your answer? Open-ended, coded by 60 Decibels. (n = 208)

32% Report Increased Preparedness
42% mention good quality seeds (13% of all respondents)
23% talk about agronomic support and training (7% of all respondents)
20% report improved water management (6% of all respondents)

“Ansal Tomatoes will improve my chances of getting through pest attacks because the seed can defend itself.” - Male

62% Report No Change in Preparedness
41% mention need for trainings (25% of all respondents)
12% talk about reliance on past experience (8% of all respondents)
11% report limited engagement with Ansal beyond seed provision (7% of all respondents)

“Ansal hasn’t offered me any trainings on how to navigate weather changes. I rely on what I already know.” - Male

6% Report Lesser Preparedness
69% mention heavy reliance on water (9 farmers)
23% talk about lack of support in pest management (3 farmers)
15% report lack of financial support (2 farmers)

“The crop requires lots of water which is scarce when there’s a drought. Without water, it burns at the bottom.” - Male
Climate Shocks: Recovery Duration

61% of farmers say that Ansal Tomatoes has not changed the duration it would take for their household to recover from a climate shock. 32% say they would recover faster.

Similar to preparedness for future shocks, farmers who receive trainings from Ansal are significantly more likely to say that their recovery duration would be shorter in case of a future shock, compared to farmers who do not receive any trainings (48% vs. 25%).

In addition to trainings on climate-smart practices, consider disseminating allied strategies that enable quicker recovery, such as savings, crop insurance, and maintaining a resilient livelihood mix, to name a few.

Expected Duration of Recovery from Future Shocks

Q: Has Ansal Tomatoes changed the amount of time you would expect your household would need to recover from such a shock? (n = 207)

- 5% Much longer
- 61% Slightly longer
- 20% No change
- 12% Slightly shorter
- 32% Much shorter

“Through the recommendations I got from the Amiran agronomist, I am able to prepare well by setting money aside for the right crop inputs. Preparing for a shock becomes easier because I know which pesticides I am going to buy.” - Male

“Ansal should help prepare for and manage climate shocks. We do not get such teachings from anywhere else, and it would be helpful if they provided us with insights on how to recover fast.” - Female
Appendix
Benchmarking Summary

Comparison to benchmarks can be useful to identify where you are under- or over-performing versus peers, and help you set targets. Information on the benchmarks is found below:

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Number of Companies</th>
<th>Number of Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ansal Tomatoes</td>
<td>211</td>
<td></td>
</tr>
<tr>
<td>60dB Global Agriculture Benchmark:</td>
<td>85+</td>
<td>17,000+</td>
</tr>
<tr>
<td>60dB Farmer as Customer Benchmark:</td>
<td>33</td>
<td>7,700+</td>
</tr>
<tr>
<td>60dB Eastern Africa Agriculture Benchmark:</td>
<td>52</td>
<td>11,000+</td>
</tr>
</tbody>
</table>

The table below compares the profile metrics for Ansal Tomatoes and the three benchmarks:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Ansal Tomatoes</th>
<th>60dB Global Agriculture Benchmark</th>
<th>60dB Farmer as Customer Benchmark</th>
<th>60dB East Africa Agriculture Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>% female respondents</td>
<td>9</td>
<td>27</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>% way of farming ‘improved very much’</td>
<td>28</td>
<td>36</td>
<td>46</td>
<td>35</td>
</tr>
<tr>
<td>% production ‘increased very much’</td>
<td>59</td>
<td>33</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>% money earned ‘increased very much’</td>
<td>50</td>
<td>27</td>
<td>31</td>
<td>26</td>
</tr>
<tr>
<td>% quality of life ‘improved very much’</td>
<td>52</td>
<td>32</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td>Net Promoter Score®</td>
<td>39</td>
<td>40</td>
<td>47</td>
<td>38</td>
</tr>
<tr>
<td>% reporting challenges</td>
<td>35</td>
<td>20</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

- **Above benchmark**
- **0-10% under benchmark**
- **>10% under benchmark**

*With respect to the 60dB Farmer as Customer Benchmark*
For those who like to geek out, here’s a summary of some of the calculations we used in this deck.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Promoter Score®</td>
<td>The Net Promoter Score is a common gauge of farmer loyalty. It is measured through asking farmers to rate their likelihood to recommend your service to a friend on a scale of 0 to 10, where 0 is least likely and 10 is most likely. The NPS is the % of farmers rating 9 or 10 out of 10 (“Promoters”) minus the % of farmers rating 0 to 6 out of 10 (“Detractors”). Those rating 7 or 8 are considered “Passives”.</td>
</tr>
<tr>
<td>Inclusivity Ratio</td>
<td>The Inclusivity Ratio is a metric developed by 60 Decibels to estimate the degree to which an enterprise is reaching less well-off farmers/customers/beneficiaries. It is calculated by taking the average of Company % / National %, at the $1.90, $3.20 &amp; $5.50 lines for low-middle income countries, or at the $3.20, $5.50, and $11 lines for middle-income countries. The formula is: $$\frac{\sum{(\text{Company Poverty Line} \times x)}}{\sum{(\text{Country Poverty Line} \times x)}} / 3$$</td>
</tr>
</tbody>
</table>
Summary Of Data Collected

211 phone interviews completed in October 2023.

Methodology
Survey mode: Phone
Country: Kenya
Language: English, Swahili
Dates: October 2023
Sampling: All 418 farmers from the baseline were contacted.
Response rate: 62%
Average time per interview: 17 mins

Accuracy
Confidence Level: ~90%
Margin of error: ~4%

Research Assistant Gender
Female: 3
Male: 1

Responses Collected
Farmers: 211
Thank You For Working With Us!

Let’s do it again sometime.

About 60 Decibels

60 Decibels makes it easy to listen to the people who matter most. 60 Decibels is an impact measurement company that helps organizations around the world better understand their farmers, suppliers, and beneficiaries. Its proprietary approach, Lean Data, brings farmer-centricity, speed and responsiveness to impact measurement.

60 Decibels has a network of 830+ trained Lean Data researchers in 70+ countries who speak directly to farmers to understand their lived experience. By combining voice, SMS, and other technologies to collect data remotely with proprietary survey tools, 60 Decibels helps clients listen more effectively and benchmark their social performance against their peers.

60 Decibels has offices in London, Nairobi, New York, and Bengaluru. To learn more, visit 60decibels.com.

We are proud to be a Climate Positive company.

Your Feedback

We’d love to hear your feedback on the 60dB process; take 5 minutes to fill out our feedback survey here!

Acknowledgements

Thank you to Constance Spitzer and Elizabeth Miranda for their support throughout the project. This work was generously sponsored by Bayer Crop Science.
I can now easily take care of my family.

The demand for Ansal tomatoes is always high.

I harvest a lot of tomatoes now.

There are more cases of:

> better yields
> increased income
> more produce

after interacting with Ansal Tomatoes.

Ramiro Rejas
Malavika Rangarajan
Jacob Thamarappally
Charles Kibigo
Brenda Wafula

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malavika@60decibels.com