

Bayer Seminis Moraleda

Impact Performance Report



Contents

About This Report	03
-------------------	----

Top Insights	04
--------------	----

Performance Snapshot	05
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 01: Profile	07
---	----

 02: Farming Practices	10
---	----

 03: Impact	13
--	----

 04: Satisfaction	17
--	----

Appendix	22
----------	----

About 60 Decibels	27
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About This Report

Bayer Seminis partnered with 60 Decibels to speak directly with their tomato farmers growing Moraleda beans, about their experience with the seeds and the changes it has brought about on their farms and in their lives.

Moraleda is a pole bean variety that features round pods suitable for both protected and open field cultivation. They exhibit resilient traits and good shelf life, making it a beneficial choice for farmers. Farmers are known to practice relay cropping of Moraleda beans with other crops. In addition to higher yields and better resilience to pests and diseases, Moraleda beans also help foster soil health through nitrogen fixation. Find out more about the impact of using Moraleda seeds [here](#).

Between May - June of 2024, 60 Decibels' Lean Data researchers conducted phone interviews with 262 farmers who relay crop tomatoes with Moraleda beans. Farmers were asked to reflect on their experience using Moraleda, and the impact it has had on their farms – particularly on their tomato crops – and on their livelihoods. This report presents insights based on our analyses of the information they shared with us.

For details about our methodology please refer to page [23](#).

“

I made good money from beans and tomatoes after using Moraleda seeds as we get two crops in a short time, so there is double profit. The Moraleda beans produce much more yield than other seeds.

– Male, 40



Top Insights

1

Nearly all farmers report improvements in their farming practices since growing Moraleda.

The top self-reported outcomes among farmers reporting improved way of farming are reduced labor and effort, the adoption of relay cropping, and lower water usage. These outcomes underscore the resource optimization encouraged by relay-cropping Moraleda beans with tomatoes. Further, 90% report reduced usage of fertilizer per unit of their tomato crop and 88% report the same in their pesticide usage. In turn, 92% report improvements in the quality of their tomato crop and 88% say the frequency of pest attacks has diminished since growing Moraleda.

See pages [11](#) and [12](#).

2

Farmers report improved production and income from their tomatoes since growing Moraleda. This is having a positive impact on their overall livelihood.

9 in 10 farmers report increased production of tomatoes because of Moraleda, with most of this group achieving higher yields from the same land, implying improved productivity. Similarly, 94% of farmers report increased earnings from tomatoes, which is largely driven by both increased sales volume and better prices. The majority (92%) report quality of life improvements: additional income earned since relay cropping with Moraleda beans is encouraging farmers to invest in their farms and in personal assets, as well as improve savings. 92% of farmers also say that their stress levels have reduced because of Moraleda.

See pages [14](#), [15](#) and [16](#).

3

Witnessing a tangible improvement in crop quality and yield is driving satisfaction among Moraleda growers.

Moraleda has a Net Promoter Score of 67, which is excellent and indicates high farmer satisfaction. Promoters value the good quality of tomatoes and high yields from both tomatoes and beans since using Moraleda. Crop quality in particular is strongly linked to satisfaction - farmers who witnessed better tomato quality since relay cropping with Moraleda are more likely to recommend the bean variety to others. Additionally, 9 in 10 farmers also report that the price charged for Moraleda seeds is better (i.e. they are cheaper), and Moraleda beans are easier to sell to buyers, compared to other varieties.

See pages [18](#) and [20](#).

4

While few farmers face challenges with Moraleda seeds, addressing these can further boost satisfaction.

13% of farmers report facing a challenge with Moraleda. Expectedly, farmers report seed-related challenges – they want to see better resistance of Moraleda seeds to high temperatures and pests. The NPS of farmers who do not face any challenges with Moraleda is significantly higher compared to those facing challenges (83 vs -37). Improving resistance of Moraleda seeds to high temperatures and pests are also suggestions brought up by Passives and Detractors. Addressing these challenges will be critical to farmer satisfaction.

See page [19](#).

Performance Snapshot

The performance column showcases how you compare to 60 Decibels Farmer Benchmarks in the Farmer as Customer sub-sector globally. The Farmer as Customer benchmark constitutes interventions where the farmer receives a product or service as a customer. This includes equipment, farm inputs (fertilizer, seeds), financial inputs (credit, insurance), livestock input (feed, vaccines, medicines), nutrition-enhancing crops, or training and information.

Performance vs 60dB Benchmarks

●○○○○ BOTTOM 20%
 ●●○○○ BOTTOM 40%
 ●●●○○ MIDDLE
 ●●●●○ TOP 40%
 ●●●●● TOP 20%

Benchmark Overview

Global
geographical
focus

Farmer as
Customer
sub-sector
Focus

26
companies
included

6,599
voices
listened to



Who are you reaching?

Moraleda

Benchmark

Benchmark
Performance

% of females

0%

31%

●○○○○

Inclusivity Ratio

0.70

0.86

●○○○○



What impact are you having?

% 'very much improved' way of farming

42%

52%

●○○○○

% 'very much increased' production

46%

39%

●●●●○

% 'very much increased' farm earnings

38%

42%

●●●○○

% 'very much improved' quality of life

48%

39%

●●●●○

% 'very much decreased' stress

48%

-

-



How satisfied are your farmers?

Net Promoter Score®

67

46

●●●●●

% experiencing challenges

13%

20%

●●●●○

% saying the price is 'much better'

44%

-

-

% saying marketing to buyers is 'much easier'

49%

-

-

Farmer Voices

Here are some farmer voices that stood out:

A farmer on how his quality of life improved

“I invested in a composting system for organic waste management and this investment happened from the savings earned through Moraleda seeds.”

- Male farmer, 45

A farmer on a why his quality of life has improved

“I completed the renovation of my house on the farm after my income doubled since using Moraleda seeds.”

- Male farmer, 34

A farmer on how he changed his way of farming

“We had to put in a lot of effort before. Now, farming with Moraleda seeds is efficient and needs less maintenance, cutting our work in half.”

- Male farmer, 32

A farmer on a challenge he faced

“It's harder for Moraleda beans to grow in high temperatures and the beans become less tasty to eat when they are grown in high temperatures.”

- Male farmer, 35

A farmer on why he would recommend Moraleda

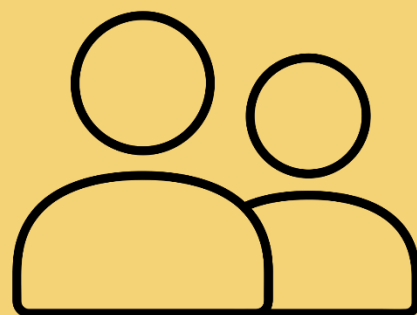
“Tomatoes grown with Moraleda seeds have better color and shine, are disease-free, and yield more than expected. I got higher market rates for my tomatoes.”

- Male farmer, 29

A farmer on why he would recommend Moraleda

“Tomatoes grown along with use of Moraleda seeds have the same grade size and excellent red color which has helped sell tomato crops easily.”

- Male farmer, 36

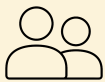


01: Profile

This section helps you understand your farmer base, and if you are reaching a previously underserved population.

The key indicators in this section are:

- **Demographics:** What is a typical farmer using Moraleda seeds like?
- **Inclusivity Ratio:** Are you reaching less well-off farmers? How representative is your farmer base of the national population of the country you are working in?
- **Crops Before Moraleda:** What were farmers relay-cropping with before Moraleda?
- **Land Utilization:** What portion of land do farmers relay crop with Moraleda beans?



The typical farmer we spoke to is a 40-year-old male who has been growing Moraleda beans along with tomatoes for 2 years.

About the Farmer (n = 262)



0%

Female farmers*
Male farmers: 100%



2

Median engagement with Moraleda
(In years)



37

Median age
Youngest: 21
Eldest: 65



100%

Maharashtra



6

Median household size



2.7

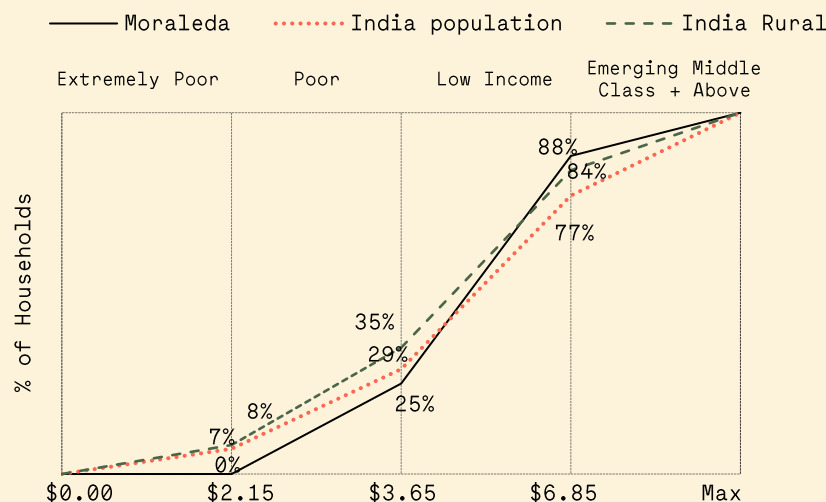
Median acres of land cultivated with tomato

*All farmers in our sample frame (740 farmers) are male. These results are internally valid for this sample frame. We do not have information on the wider group of farmers to ascertain representativeness of our sample in relation to the larger population.

25% of Moraleda's farmers live under \$3.65 per day, which is slightly below than the national average in India (29%).

Farmers' Income Distribution Relative to India Average

% living below \$x.xx per person per day (2017 PPP) (n = 262)



Inclusivity Ratio

Degree to which Moraleda is reaching low-income farmers in India (n = 262)

0.70

India (Overall)

0.61

India (Rural)*

1 = parity with population;
> 1 = over-serving;
< 1 = under-serving.
See [Appendix](#) for calculation.

●●○○○

BOTTOM 40% - 60dB Benchmark

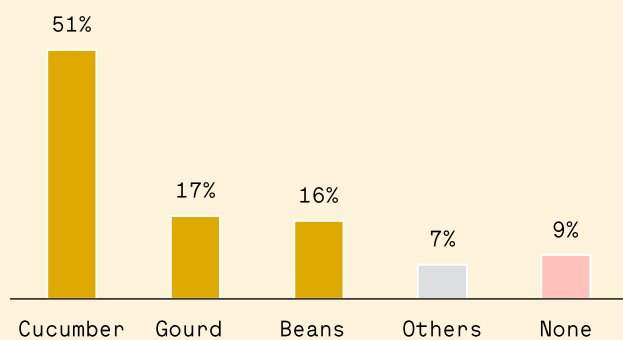
*The rural Inclusivity Ratio estimates the degree to which Moraleda is reaching low-income farmers compared to other rural regions across India. However, since all of Moraleda's farmers are Maharashtra based we cannot account for variations in poverty across different states.



Before growing Moraleda beans, half of the farmers report relay-cropping tomatoes with cucumber.

Relay Cropping Before Moraleda

Q: Before using Moraleda seeds, which vegetable did you primarily relay-crop with tomato? (n = 262)



Insight

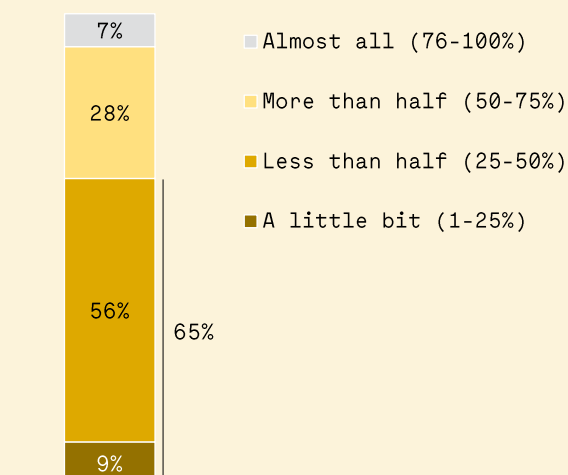
'Other' vegetables relay-cropped with tomato include:

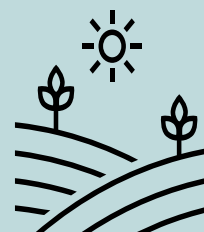
- > Chilli (3%)
- > Onion (2%)
- > Sugarcane (2%)

For 65% of farmers, less than half of their total land is dedicated to growing Moraleda beans, alongside tomatoes.

Land Under Relay Cropping with Moraleda

Q: In the last 12 months, what portion of your land planted with tomato do you relay-crop with Moraleda beans? (n = 262)





02: Farming Practices

Innovative technology and solutions play a crucial role in shaping farming practices. Farmers' ability to adopt and benefit from these solutions directly influences their productivity and livelihoods.

This section highlights how the use of Moraleda is influencing farming practices and resource allocation among farmers.

The key indicators in this section are:

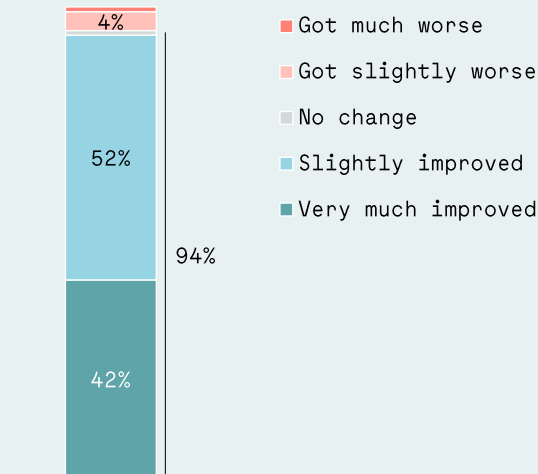
- **Fertilizer and Pesticide Use:** How has fertilizer and pesticide usage changed because of Moraleda? Has the frequency of pest infestations or crop diseases changed because of Moraleda?
- **Harvest Quality:** Has the quality of tomatoes changed since growing Moraleda?
- **Way of Farming:** Have farming practices changed because of farmers' interaction with Moraleda?



94% of farmers report that their way of farming has improved with Moraleda. Less than half report significant improvements.

Change in Way of Farming

Q: Has your way of farming changed because of Moraleda? (n = 262)



Insight

Farmers who report worsened way of farming practices (5%) primarily attribute it to:

- > Relay cropping increasing the occurrences of crop diseases
- > Moraleda's incompatibility with weather and soil conditions in their area

● ○ ○ ○ ○

BOTTOM 20% - 60dB Benchmark

Farmers talk about reduced labour and effort spent on farming as their top self-reported way of farming improvement.

Improvements in Way of Farming

Q: How has your way of farming improved? (n = 246). Open-ended, coded by 60 Decibels.

40%

talk about **reduced labour and effort**
(37% of all respondents)

"I find farming easier now; otherwise, it used to require a lot of effort before." - Male, 41

33%

mention **greater uptake in relay cropping with Moraleda***
(31% of all respondents)

"Using Moraleda seeds to relay-crop allows for harvesting two crops, thereby increasing returns." - Male, 42

20%

report **lower water usage**
(19% of all respondents)

"Irrigation has improved as we use less water to grow crops in the summer when there is a shortage of water supply" - Male, 38

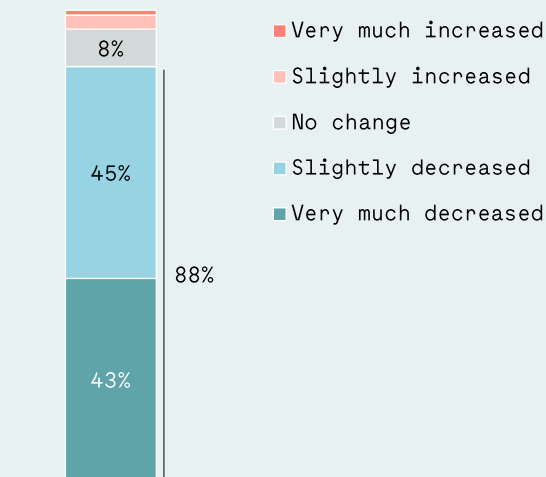
*As a result of faster germination rates and ease of growing Moraleda seeds.



Relay-cropping with Moraleda is helping farmers reduce the amount of pesticide they use. They also report fewer pest attacks.

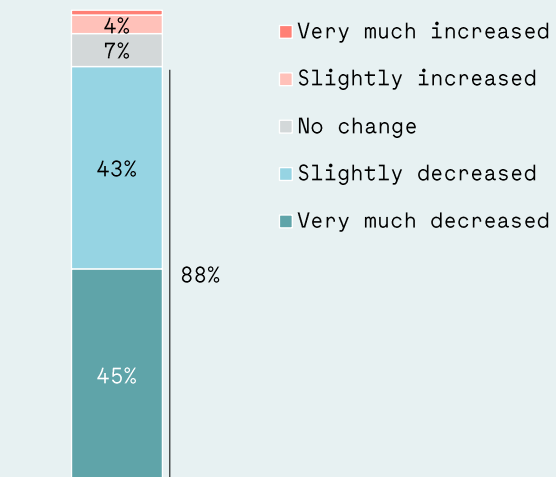
Change in Pesticide Usage

Q: How has the amount of pesticide you apply per unit of tomato changed since growing Moraleda? (n = 262)



Change in Pests and Diseases

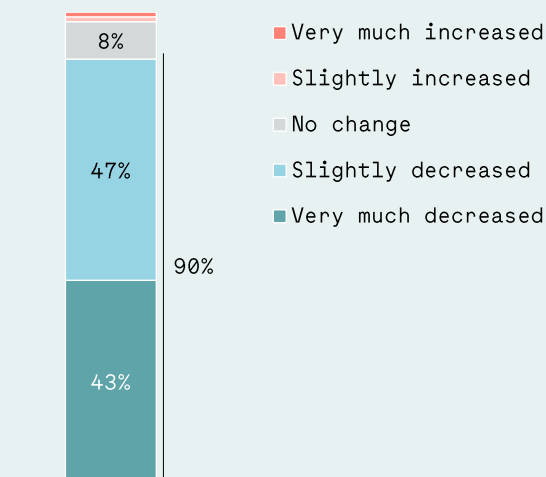
Q: Has the frequency of pest infestations or crop diseases on your farm changed since growing Moraleda? (n = 262)



Most farmers report reduced use of fertilizers, while seeing an improvement in their tomato quality since growing Moraleda.

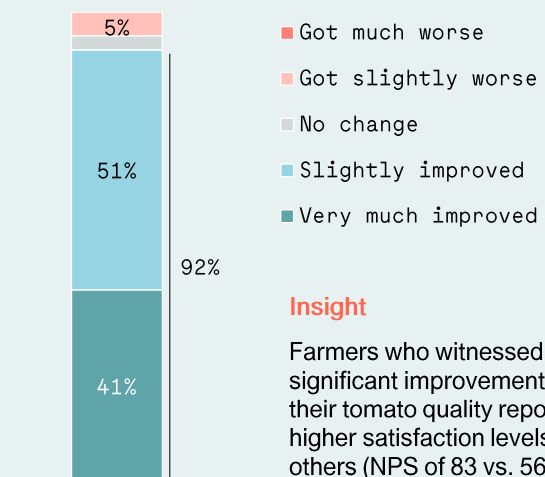
Change in Fertilizer Usage

Q: How has the amount of fertilizer you apply per unit of tomato changed since growing Moraleda? (n = 262)



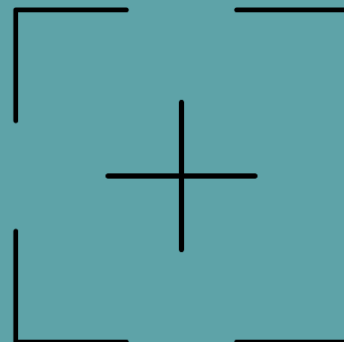
Change in Tomato Quality

Q: Has the quality of your tomato crop changed since growing Moraleda? (n = 262)



Insight

Farmers who witnessed a significant improvement in their tomato quality report higher satisfaction levels than others (NPS of 83 vs. 56). More on farmer satisfaction on page 17.



03:

Impact

We believe that the best way to understand the social impact that you are having, is to simply ask farmers whether their livelihood and farm outcomes have changed because of your offering, and if so, how.

This section shows the degree to which you are impacting your farmers and their livelihoods.

The key indicators in this section are:

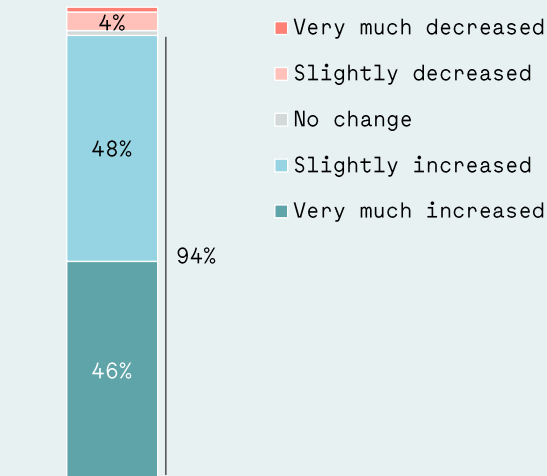
- **Production and Earnings:** To what extent are farmers experiencing changes in production and earning because of Moraleda?
- **Quality of Life Change:** To what extent has the quality of life of your farmers changed?
- **Change in Stress Levels:** Are farmers feeling less stressed after using Moraleda seeds.

[+] Impact on Tomato Crops

9 in 10 farmers report increased tomato production because of Moraleda and most achieved higher yields from the same land.

Change in Production

Q: Has the total production from tomatoes changed because of Moraleda? (n = 262)

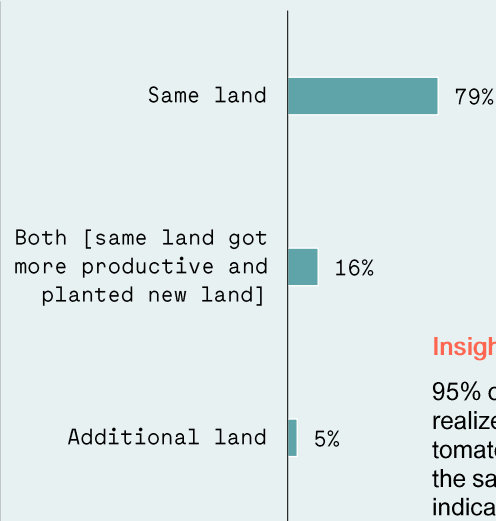


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TOP 40% - 60dB Benchmark

Reasons for Increase in Production

Q: Was this increase because you planted additional land or was it from the same amount of land, or both? (n = 247)



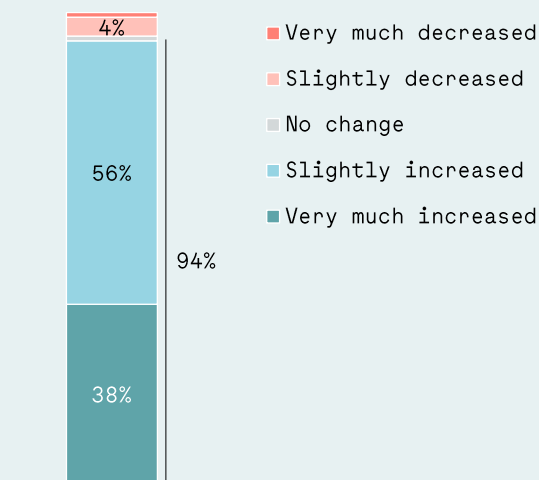
Insight

95% of farmers realized higher tomato yields from the same land, indicating improved productivity.

Nearly all report increased earnings from tomatoes since growing Moraleda, driven by increases in both volume and price.

Change in Earnings

Q: Has the money you earn from tomatoes changed because of Moraleda? (n = 262)

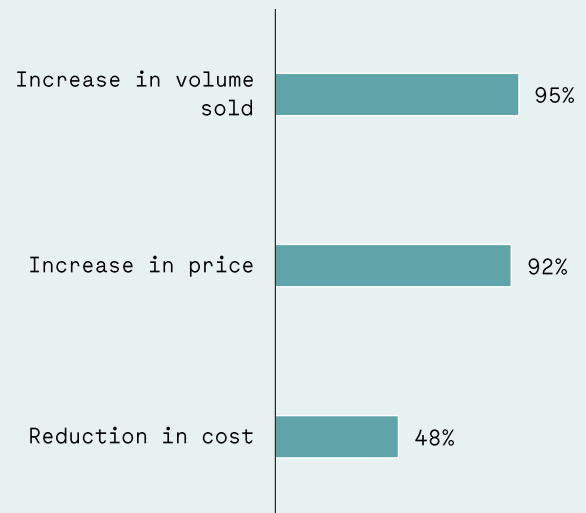


●●●●○

MIDDLE - 60dB Benchmark

Reasons for Increase in Earnings

Q: What were the main reasons for the increase in money earned? (n = 248)

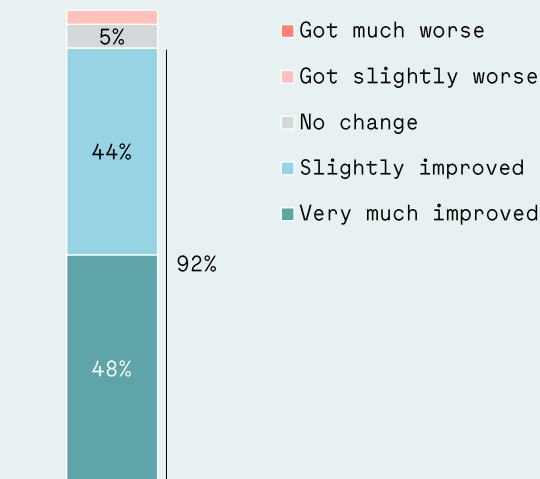


Farmer Livelihood Impact (1/2)

9 in 10 farmers report that their quality of life has improved because of Moraleda.

Quality of Life Change

Q: Has your quality of life changed because of Moraleda? (n = 262)



●●●●○
TOP 40% - 60dB Benchmark

Insight

Farmers reporting ‘no change’ in their quality of life (5%) talk about the lack of improvement in their income (14 farmers) and crop failure (2 farmers) from growing Moraleda seeds.

Those who say that their quality of life got worse (3%) primarily attribute this to financial stress from poor harvests (5 farmers).

Farmers talk about increased investments in their farm as the top self-reported driver of improved quality of life.

Improvements in Quality of Life

Q: How has your quality of life improved? (n = 242). Open-ended, coded by 60 Decibels.

34%	talk about increased agricultural investments (32% of all respondents)	“After using the profits from Moraleda seeds, I got fencing done around my farm.” - Male, 29
26%	mention investment in personal assets* (24% of all respondents)	“I've done some renovations at home, funded by the profits from using Moraleda seeds.” - Male, 41
21%	report improved savings (19% of all respondents)	“I've saved some money since I started using Moraleda seeds because my profits have increased.” - Male, 42

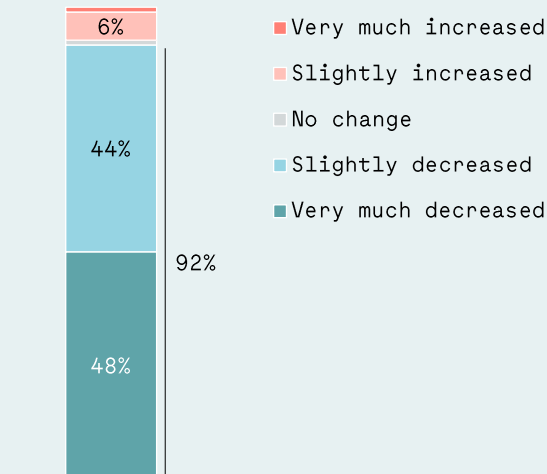
*Such as vehicles, home renovations and household items such as TV, furniture, mobile phone, etc.

[+] Farmer Livelihood Impact (2/2)

9 in 10 farmers report decreased stress levels because of Moraleda.

Change in Stress Levels

Q: Has your level of stress changed because of Moraleda? (n = 262)



Insight

When farmers were asked to describe the top quality of life improvements in their own words, 19% of them talk about reduced financial stress since using the seeds as one of their top themes.



“

Life is better and stress-free now with the extra income from Moraleda seeds. Now, if I need money immediately, I don't have to worry or borrow from others.
– Male, 43



03:

Satisfaction

If your farmers are happy, it's likely they will continue to choose Moraleda or recommend it to others.

This section uses the popular Net Promoter Score® to understand the level and drivers of farmer satisfaction and loyalty. Additional insights on challenges and suggestions highlight areas you can improve.

The key indicators in this section are:

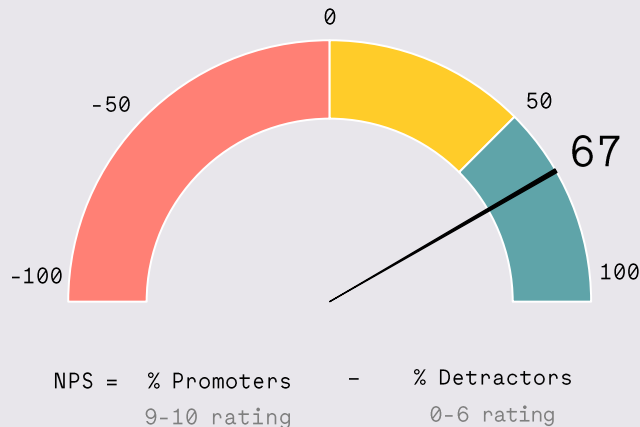
- **Net Promoter Score®:** How likely are your farmers to recommend Moraleda?
- **Challenge Experience:** What proportion of farmers experience challenges?
- **Price Perception:** What do your farmers think about the price charged for the seeds?
- **Ease of Sales:** Has Moraleda made it easier for farmers to market beans to buyers?



Moraleda has an NPS of 67, which is excellent and in the top 20% of the 60dB Farmer Benchmark for similar business models.

Net Promoter Score® (NPS)

Q: On a scale of 0-10, how likely are you to recommend Moraleda to a friend or family member, where 0 is not at all likely and 10 is extremely likely? (n = 262)



The Net Promoter Score® (NPS) is a gauge of client satisfaction and loyalty. The NPS is the percent of farmers rating 9 or 10 ('Promoters') minus the percent of farmers rating 0 to 6 ('Detractors'). Those rating 7 or 8 are 'Passives'.

The score can range from -100 to 100.

Insight

Satisfaction does not significantly vary by farmer tenure, crops grown before Moraleda, or proportion of land under relay cropping with Moraleda.



TOP 20% - 60dB Benchmark

Improved quality and yield from tomatoes is driving satisfaction among Moraleda growers. Detractors want more resistant seeds.

72%

are Promoters 😊

They love:

1. Better quality of tomatoes (36% / 26% of all respondents)
2. Higher tomato yield (38% / 27% of all respondents)
3. High beans yield (29% / 21% of all respondents)

23%

are Passives 😐

They like:

1. Higher tomato yield (46% / 10% of all respondents)
2. High beans yield (37% / 8% of all respondents)

But want to see:

1. Better resistance to high temperatures (19% / 4% of all respondents)

5%

are Detractors ☹️

They want to see:

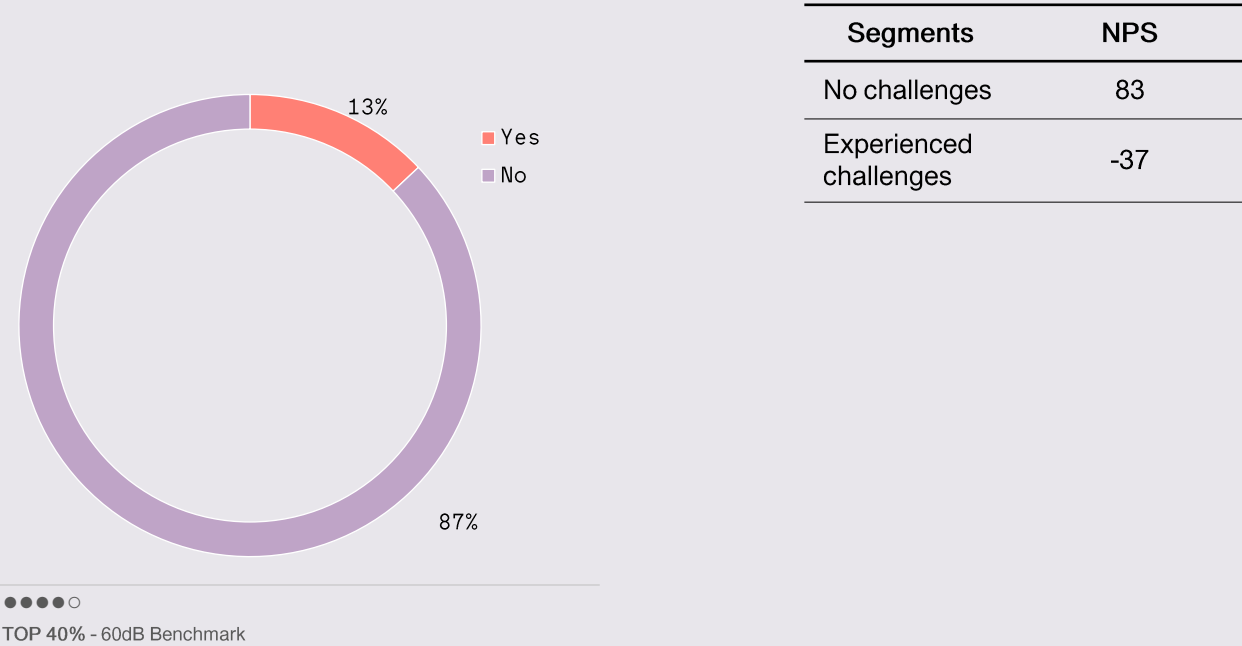
1. Better pest resistance (6 respondents)
2. Improved quality of beans (4 respondents)
3. Higher yield of beans (3 respondents)



13% of farmers report facing a challenge with Moraleda. Challenges negatively affect farmer satisfaction.

Challenge Experience

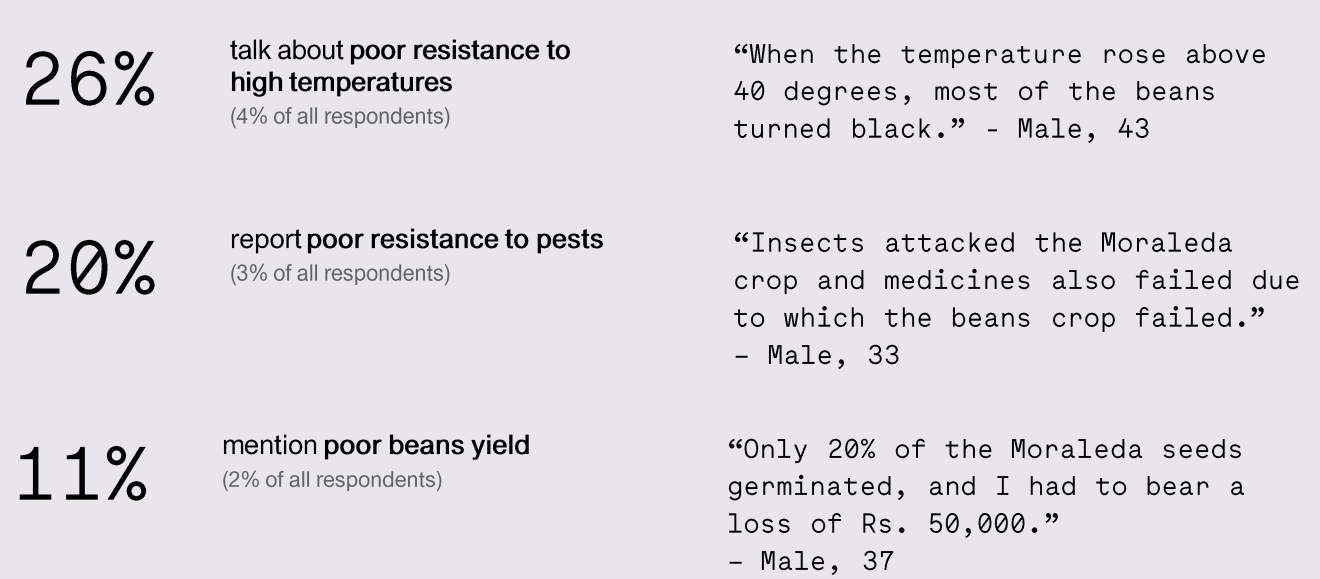
Q: Have you experienced any challenges with Moraleda? (n = 262)



Of those who report challenges, most farmers talk about issues with the Moraleda seed’s performance.

Most Common Challenges

Q: Please explain the challenges you have experienced. (n = 35). Open-ended, coded by 60 Decibels.



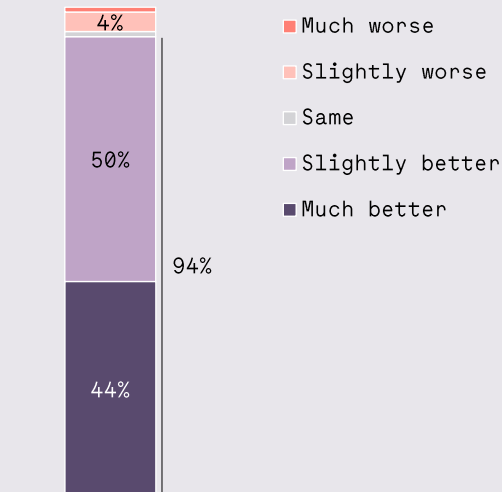


Moraleda Beans: Deep Dive

Nearly all farmers find the price charged for Moraleda seeds to be better than alternate bean seed varieties.

Price Perception

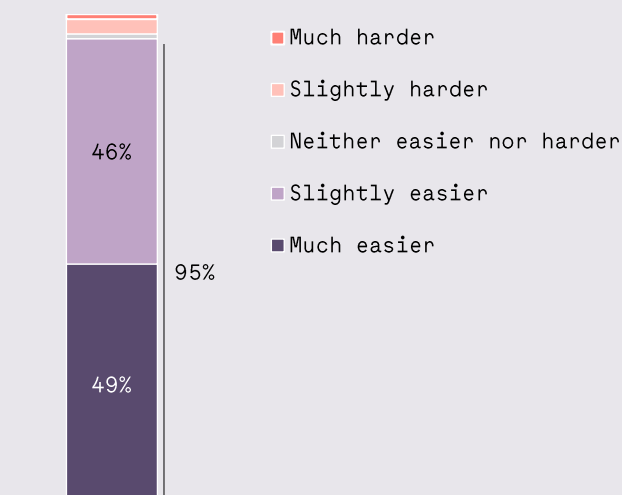
Q: Compared to other beans seed varieties, do you think the price charged for Moraleda is: (n = 262)



For most farmers, using Moraleda seeds is making it easier for them to market their beans to their buyers.

Ease of Sales With Moraleda

Q: Did using the Moraleda seeds make it easier or harder for you to market beans to your buyers? (n = 262)



“

Thanks to Moraleda seeds, bean cultivation has been very successful. There is good demand in the market, resulting in higher prices.

– Male, 43



“

Using the profits I have earned from Moraleda, I have been able to invest in the construction of fencing around the farm. This will keep animals away and prevent theft and vandalism.

– Male, 44



Appendix

Methodology (1/2)

About the 60 Decibels Methodology

In May - June 2024, 60 Decibels’ trained researchers conducted 262 phone interviews with farmers growing Moraleda seeds. The farmers were randomly selected from a sample of Moraleda’s farmer database. Here is the breakdown of how we collected this data:

Country	India
Sample Frame	776
Interviews Completed	262
Response Rate	44%
Languages	Marathi
Average Survey Length	16 mins
Confidence Level	90%
Margin of Error	4%

Interpreting the Results

While the findings of this study are internally valid (hold true for the surveyed farmers), we cannot ascertain external validity (whether findings hold true for the entire population of the company) because:

- **Contacts received:** We received a non-random sample of 776 farmers from a larger group that Moraleda works with. We do not have information on the wider group of farmers to ascertain representativeness of our sample.
- **Applicability of results:** All references to figures, proportions and trends hold true for that sample that we interviewed; these may or may not be extrapolatable to the whole of your population.
- **Attribution of Impact:**
 - For all farm outcome-related metrics (such as production, crop revenue, farm input use), farmers were asked to think about the impact of growing Moraleda on their tomato crop.
 - Specifically for the questions on seed price and the ease of selling crops in the market, farmers were prompted to reflect only on Moraleda beans.
 - For all other survey questions, farmers attribute impact to the program as a whole.

Methodology (2/2)

Calculations and Definitions

For those who like to geek out, here’s a summary of some of the calculations we used in this report.

Metric	Calculation
Inclusivity Ratio	<p>The Inclusivity Ratio is a metric developed by 60 Decibels to estimate the degree to which an organization is reaching less well-off clients. It is calculated by taking the average of Company % / Country %, at the \$2.15, \$3.65, and \$6.85 lines. The formula is:</p> $\sum_{x=1}^3 \frac{(\text{Company Poverty Line } \$x)}{(\text{India Poverty Line } \$x)} / 3$
Net Promoter Score®	<p>The Net Promoter Score (NPS) is a common gauge of client satisfaction and loyalty. It is measured by asking clients to rate their likelihood to recommend a product/service to a friend or family member on a scale of 0 to 10, where 0 is least likely and 10 is most likely. The NPS is the % of clients rating 9 or 10 out of 10 ('Promoters') minus the % of clients rating 0 to 6 out of 10 ('Detractors'). Those rating 7 or 8 are considered 'Passives'.</p>

Ideas for How to Use these Results

Here are ideas for ways to engage your team and use these results to fuel discussion and inform decisions.

Review Your Results

- ☐ Review your results and qualitative farmer responses. There's a lot of interesting feedback in there!
-

Engage Your Team

- ☐ Send the report to your team & invite feedback, questions and ideas. Sometimes the best ideas come from unexpected places!
 - ☐ Set up a team meeting & discuss what's most important, celebrate the positives, and identify next steps.
-

Spread The Word

- ☐ Reach a wider audience on social media & show you're invested in your farmers.
-

Close The Loop

- ☐ We recommend posting on social media/website/blasting an SMS saying a 'thank you to everyone who took part in the recent survey with our research partner 60 Decibels, your feedback is valued, and as a result, we'll be working on XYZ'
 - ☐ After reading this report, don't forget to let us know what you thought: [Click Here!](#)
-

Take Action!

- ☐ Collate ideas from team into an action plan including responsibilities.
- ☐ Keep us updated, we'd love to know what changes you make based on these insights.
- ☐ Set up the next Lean Data project – we recommend checking in again in 6 to 12 months.



“

Moraleda seeds are excellent. They produce high-quality beans. The tomato crop also had higher demand in the market and people come to our village to buy them.

– Male, 43

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About 60 Decibels

60 Decibels is a global, tech-enabled impact measurement company that brings speed and repeatability to social impact measurement and customer insights. We provide genuine benchmarks of impact performance, enabling organizations to understand impact relative to peers and set performance targets. We have a network of 2,000+ researchers in 97+ countries, and have worked with more than 800 of the world's leading impact investors, companies, foundations, corporations, NGOs, and public sector organizations. 60 Decibels makes it easy to listen to the people who matter most.

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Thank You For Working With Us!

Let's do it again sometime.

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