

Bayer Crop Science: Knowledge Transfer Initiative (KTI)

India



Welcome To Your 60dB Results

We enjoyed hearing from 281 farmers who are users of Bayer's Knowledge Transfer Initiative (KTI) in India – they had a lot to say!

Contents

Headlines

- 03 / About the Study
- 04 / Performance Snapshot
- 05 / Top Insights
- 06 / Farmers' Voices

Detailed Results

- 08 / Farmer Profile
- 12 / Impact Performance
- 22 / Platform Engagement
- 29 / Farmer Experience
- 35 / Segmentation Analysis

Appendix

- 39 / Benchmarking Summary
- 40 / Methodology

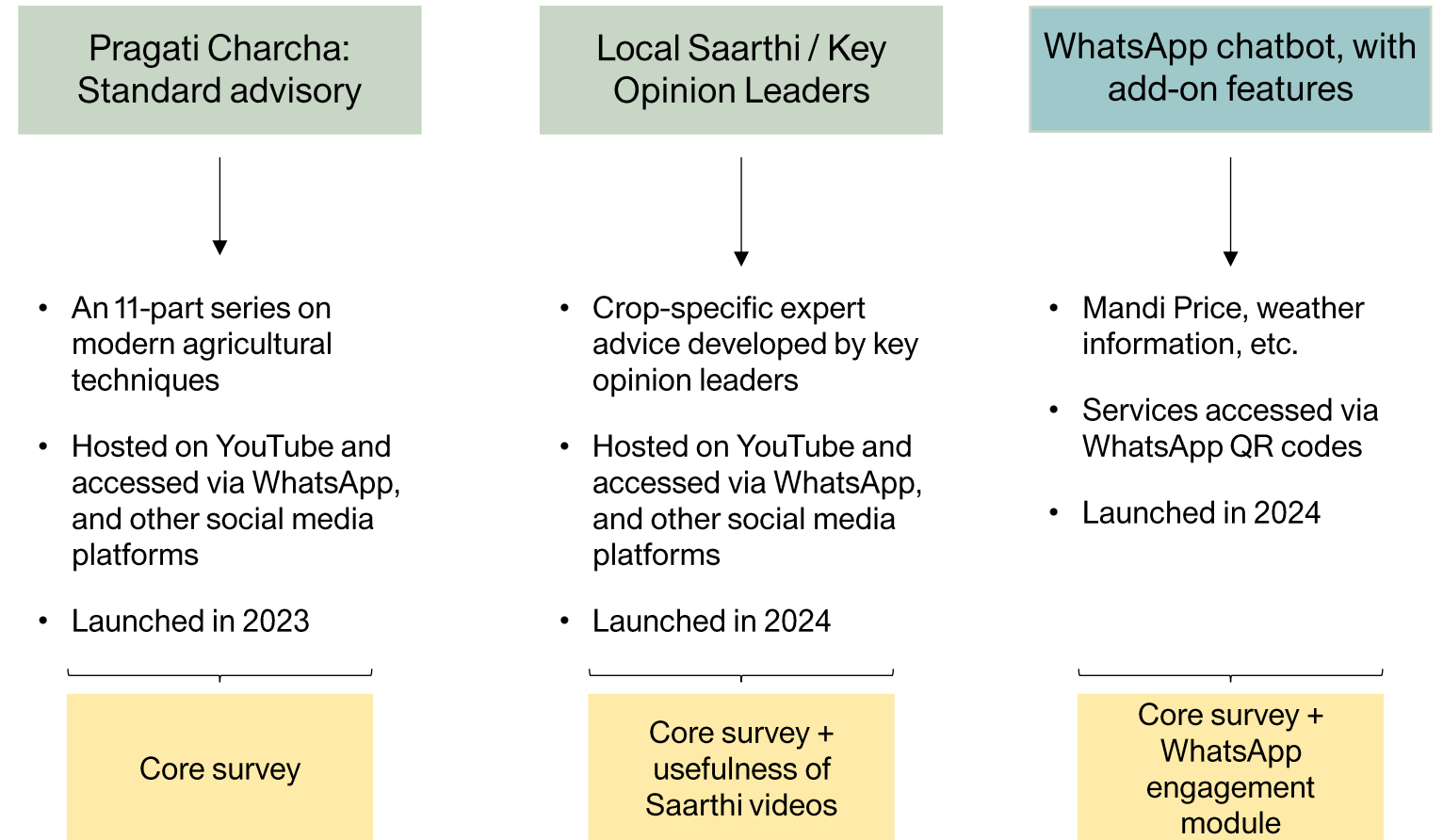
About the Study

The Knowledge Transfer Initiative (KTI), implemented by Bayer, is a strategic intervention designed to empower farmers in India by enhancing their agricultural knowledge and practical skills. This initiative addresses the dual objectives of education and improved farming productivity, income, and efficiency.

Bayer Corporation aims to learn about the impact that this intervention is having on farmers in India and how farmers are engaging with the offering.

Between September – October 2024, 60 Decibels spoke to 281 farmers who are using KTI's offerings. Our core survey consisted of modules around farmer profile, impact, satisfaction and platform engagement.

The study was designed keeping in mind the three modes of delivery of Bayer's Knowledge Transfer Initiative.



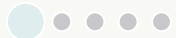
Performance Snapshot

Satisfaction with KTI’s offerings is high among farmers, and the challenge rate remains low. There is scope for impact to deepen over time.

Gender

1%

of served farmers are female



Impact

31%

quality of life ‘very much improved’



Self-Reported Outcomes

- 37% talk about increased crop production
- 33% mention increased income
- 30% report ability to invest in farm infrastructure

Way of Farming

30%

‘very much improved’



Farmer Voice

“After watching Bayer Seminis’ videos, I started using their suggested seeds, which has increased my income.” - Male, 37

Data Summary

Knowledge Transfer Initiative Performance: 281 farmer phone interviews between September - October 2024 in India.

Quintile Assessment compares Project Performance with 60dB Farmer as a Customer Benchmark comprised of 26 companies, 11 countries, and 6,500+ farmers. Full details can be found in [Appendix](#).

Net Promoter Score®

61

on a -100 to 100 scale



Challenges

8%

report challenges



Crop Income

29%

‘very much increased’



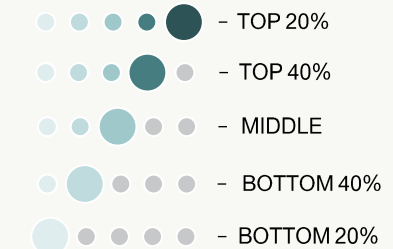
Production

37%

‘very much increased’



Performance vs. 60dB Benchmark



Top Insights (1/2)

1 KTI is a unique offering for farmers, which is translating into improved farming practices.

9 in 10 farmers say that this is the first time they are accessing a service like KTI, and 8 in 10 report no good alternatives in the market for the intervention. Farmers are viewing videos on a range of topics including pest and virus control, nursery management, and irrigation. As a result, 86% of farmers report way of farming improvements and 90% of those accessing digital advisory from *Saarathi* leaders report that this has influenced their farming practices.

The top self-reported way of farming improvements include better pest or disease management and irrigation practices, which are in line with the most commonly viewed topics on KTI.

See pages [10](#) - [15](#).

2 Impact on farmer livelihoods can be deepened through prolonged and expanded usage of KTI's offerings.

Three-quarters of farmers report improvements in farm production, income, and quality of life due to KTI, with a similar proportion also experiencing reduced stress levels.

- Farmers who have been using KTI for more than five months (tenured farmers) are more likely to report significant improvements across impact metrics compared to those who have been using it for less than or equal to five months.
- Those using all three KTI offerings (*Pragati Charcha* videos, *Saarathi* advisory videos, and the WhatsApp Chatbot) report even greater improvements in these areas than those who use only one or two of the offerings.

For consideration: Encouraging greater engagement with the breadth of KTI's services over time can deepen the impact reported by farmers.

See pages [16](#) - [21](#).

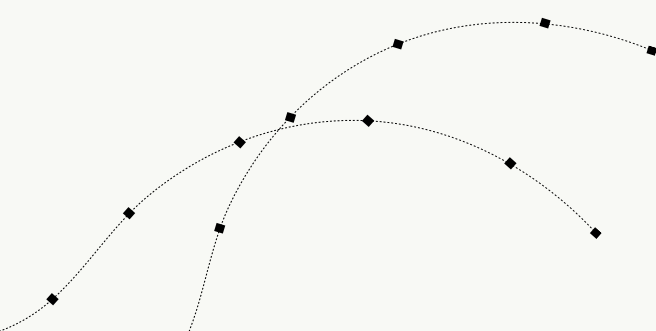
3 KTI's content is revisited frequently and is easy to understand. But not all of the information is new or easy to apply.

82% of farmers say that they revisit the digital advisory videos 'every week' or a 'few times a month'. 9 in 10 farmers find 'all' or 'most' of the information on KTI easy to understand, making it a user-friendly avenue to gain farming knowledge. Roughly half find the information on the platform to be new to them, and this group is more likely to revisit the digital advisory videos every week compared to other farmers (44% vs 23%).

However, for the other half, only 'some' or 'none' of the information is new, and only 15% of all farmers say that they applied 'all' of the advisory to their farm. Lack of material or equipment is cited as the top barrier to application.

Insight: Rolling out new content, along with support in accessing relevant resources to apply the training, could enhance usage.

See pages [23](#) - [25](#).



Top Insights (2/2)

4 Farmers find the WhatsApp chatbot useful in fetching better market prices and preparing for weather shocks.

83% of farmers report accessing the WhatsApp Chatbot. Of this group, a third actively use the chatbot (every week) and nearly all say that the features are useful to them. In particular, services such as *Mandi Price* are enabling 62% of farmers to get a better price for their crop in the market and the weather information features have helped 72% of farmers better prepare for climate shocks in the future.

Improved access to market information may also be leading to an increase in crop income. Farmers who say their ability to get a better market price for their crop has 'very much improved' are more likely to report significant increases in their crop earnings compared to others (65% vs 20%).

See pages [27](#) - [28](#).

5 Satisfaction with KTI is high, and this is complemented by social media being a trusted information source among farmers.

KTI has an NPS of 61, which is excellent and in the top 20% of relevant 60dB benchmarks. Promoters value guidance around choosing the correct seed for their farming, improved pest management practices, and witnessing improved crop yields since applying the information. 82% of them find the value offered by KTI to be 'good' or 'very good'.

When asked about what their trusted sources of agronomic information are, the majority (84%) identify social media, further underscoring the value that farmers see such a platform.

Like with farmer impact, satisfaction is higher among farmers who accessed all three offerings from KTI compared to those who accessed fewer services (NPS of 70 vs. 42).

See pages [10](#), [30](#), [31](#) and [33](#).

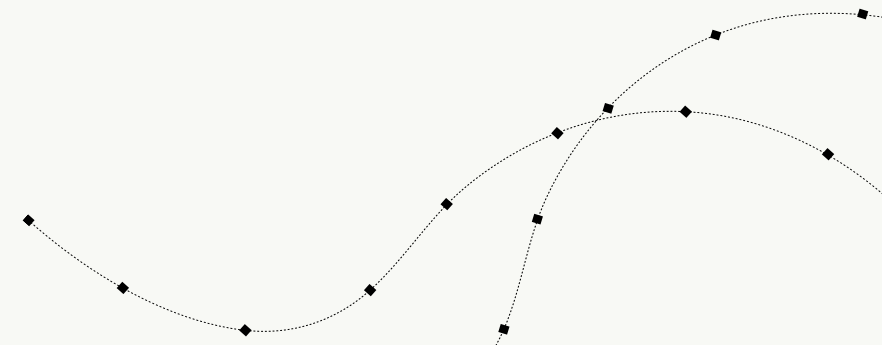
6 Offering crop-specific advisory can boost farmer satisfaction in the future.

Although only 8% of farmers report challenges with KTI, those that do, complain about incorrect or incomplete information, along with the lack of relevant information. These themes are echoed by Passives and Detractors as well, who want more detailed or comprehensive information in the future.

Looking ahead, half of the farmers mention crop-specific training, information on disease and pest management, and advisory on the quality and type of seed selection as the top training topics they would like to see on KTI.

Takeaway: With the existing digital infrastructure and farmer trust in place, Bayer is in a unique position to roll-out curated advisory for farmers in the future.

See pages [32](#) and [34](#).



Farmers' Voices

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

Impact Stories

75% shared how KTI has improved their quality of life

"I'm gaining knowledge and learning new techniques, which is improving my life. I can now fulfill my dreams and manage my expenses. I drive a large, expensive car and have installed an air conditioner at home—something I didn't have before." - Male, 39

"I planted high-quality seeds after receiving digital advice, which led to good earnings. This helped me construct my home, buy a motorcycle, and improve my life." - Male, 50

Changes in Farming

86% of report that their way of farming has improved because of KTI

"I have started using drip irrigation, eliminating the need to hire labor for irrigation. This has reduced my expenses and increased my income. I now achieve better crop production with less effort." - Female, 32

"Previously, people did plough by hand, but now we use tractors. I used to wake up for irrigation, but now I have a meter and set a timer for automated irrigation. I also switched from manual weeding to using mulching." - Male, 30

Opinions on Value Proposition

64% were Promoters and highly likely to recommend

"I receive timely and accurate information, which helps me achieve higher crop production at lower costs. Their videos are regularly updated, which is very helpful." - Male, 34

"Yes, I am encouraging my family and friends to access the same information I have received so they can adopt similar farming methods and progress like I have." - Male, 26

Opportunities for Improvement

8% faced challenges with KTI

"Sometimes, the pesticides shown in videos are not available at local dealers, so I have to source them from elsewhere." - Male, 30

"My tomato crops often get infected with diseases, but I don't get enough information about this from the videos." - Male, 26

Table of Contents

“I am using the staking method, which has increased cucumber production on my plants. I learned this through a video.” - Male, 32

- Farmer Profile
 - > Demographics
 - > Advisory Topics Covered & Trusted Sources for Information
 - > First Access & Alternatives
- Impact Performance
 - > Way of Farming & Influence on Practices
 - > Production & Income
 - > Investment in Farming
 - > Quality of Life
 - > Livelihood Stress
- Platform Engagement
 - > Novelty & Frequency of Engagement
 - > Ease of Understanding
 - > Application to Work
 - > Chatbot Usage and Usefulness of Information
 - > Market Pricing & Weather Information
- Farmer Experience
 - > Farmer Satisfaction
 - > Challenges
 - > Value Perception & Trust
 - > Suggestions
- Segmentation Analysis
 - > Access to Services
 - > Tenure

Demographics

We asked farmers about their engagement with KTI's offerings. 55% of the farmers access all three of the offerings while 31% use two, and 14% access just one.

To analyze trends in tenure, farmers are categorized based on the median tenure of engagement with KTI. Farmers with a tenure of 5 months or less are classified as 'less tenured' while those with more than 5 months of tenure are classified as 'more tenured'.

Throughout the report, statistically significant differences have been reported in the commentary.

Note: The N value signifying sample size may vary based on the survey logic and the number of beneficiaries who chose to skip the question or were unable to answer it.

The typical farmer we spoke to is a 33-year-old male who grows tomatoes and has been using KTI's offering for less than 6 months.

About the Farmers We Spoke With

Data relating to farmer characteristics (n = 281)



1%

Female farmers
Male farmers: 99%



54%

Madhya Pradesh
Rajasthan: 29%
Himachal Pradesh: 24%



33

Median age
Youngest: 18
Eldest: 70



48%

Tomato farmers
Hot Pepper: 11%
Cauliflower: 11%
Bean: 6%
Other vegetables: 34%

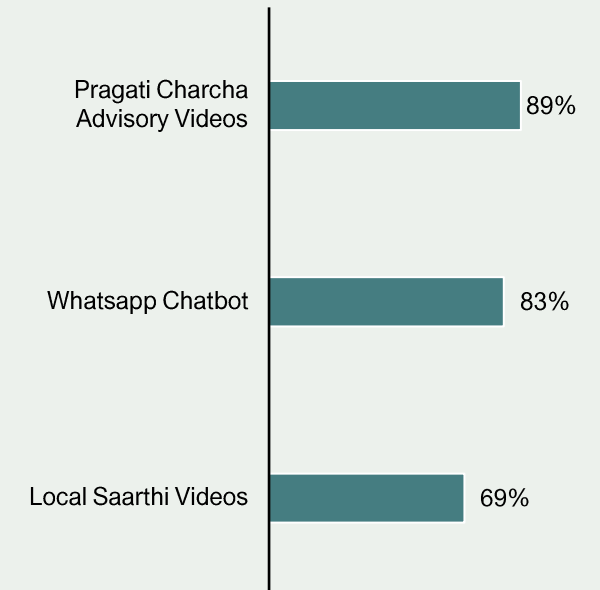


5 months

Median engagement
53% <= 5 months
47% > 5 months

Services Accessed

Q: Which of these [Bayer Seminis] offerings did you use in the last 12 months? Select all that apply. (n = 281)



Topics Covered & Information Sources

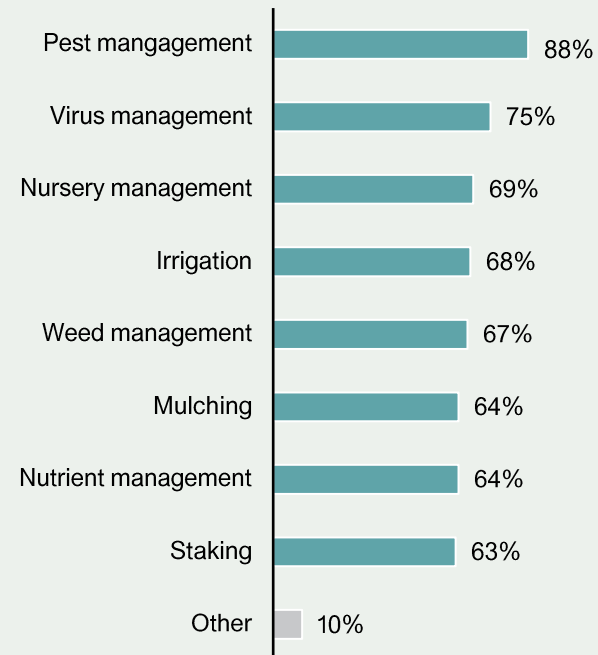
Farmers report getting information about multiple farming topics through KTI. Other topics include seed advisory (11 farmers) and weather information (6 farmers).

Despite having access to direct interactions with experienced sources such as agro-dealers and extension workers, 84% of farmers consider social media a trusted source of agronomic information. This trust may stem from their engagement with KTI's offerings.

Farmers most commonly report watching content on pest and virus management. 84% of farmers view social media as a trusted source for agronomic information.

Advisory Topics Covered

Q: Which of these topics were covered in Pragati Charcha / Bayer Seminis' digital advisory? (n = 281)



Trusted Sources for Information

Q: What are your trusted sources for agronomic information? (n = 281)



First Access & Alternatives

The high proportion of farmers accessing such an offering for the first time, along with the relative lack of good alternatives suggests that KTI is providing a unique service to an underserved farmer base.

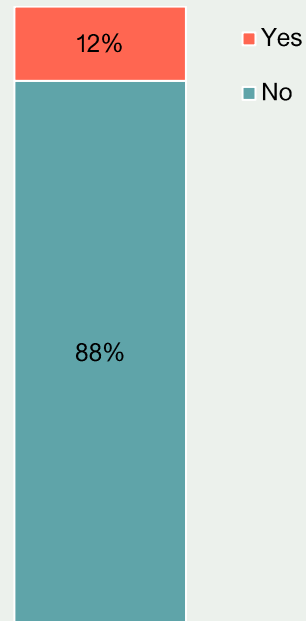
Despite most farmers reporting that they access trusted sources of farm information through non-digital channels (agro-dealers, friends, extension workers), they may not see these as good alternatives to KTI.

88% of farmers say they did not have prior access digital advisory services like the ones provided by KTI. 77% say they could not easily find good alternatives to these services.

First Access

Q: Before Bayer Seminis, did you have access to digital advisory like Pragati Charcha provides? (n = 281)

● ● ● ● ● - TOP 40%



Access to Alternatives

Q: Could you easily find a good alternative to Pragati Charcha / Bayer Seminis' digital advisory? (n = 281)

● ● ● ● ● - BOTTOM 40%

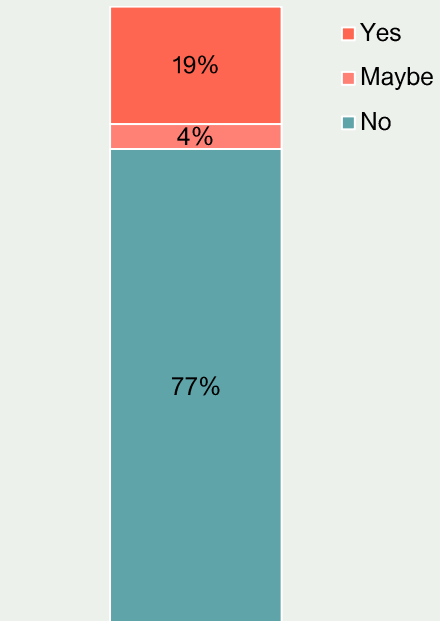


Table of Contents

“I received information on planting and crop medicines, which helped me understand tomato crop diseases.”
- Male, 30

- Farmer Profile
 - > Demographics
 - > Advisory Topics Covered & Trusted Sources for Information
 - > First Access & Alternatives
- Impact Performance
 - > Way of Farming & Influence on Practices
 - > Production & Income
 - > Investment in Farming
 - > Quality of Life
 - > Livelihood Stress
- Platform Engagement
 - > Novelty & Frequency of Engagement
 - > Ease of Understanding
 - > Application to Work
 - > Chatbot Usage and Usefulness of Information
 - > Market Pricing & Weather Information
- Farmer Experience
 - > Farmer Satisfaction
 - > Challenges
 - > Value Perception & Trust
 - > Suggestions
- Segmentation Analysis
 - > Access to Services
 - > Tenure

Way of Farming: Overview

Farmers growing tomatoes as their main crop are more likely to report significant improvements in their way of farming compared to those growing other crops (36% vs 25%).

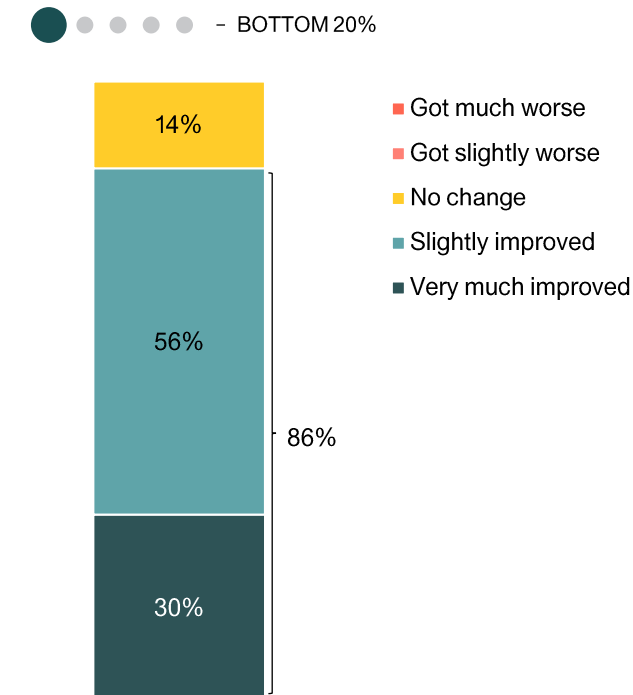
Farmers accessing all 3 offerings (*Pragati Charcha* videos, *Saarathi* advisory videos, and Whatsapp chatbot) are more likely to report significant improvements in their way of farming compared to those accessing two offerings or fewer (37% vs 22%). This suggests that deeper engagement with KTI leads to greater improvements in farming practices.

More tenured farmers (> 5 months) are likelier to report significant improvements in their way of farming compared to their less tenured (< = 5 months) counterparts (36% vs 24%).

86% of farmers say that their way of farming has improved because of KTI, with 30% reporting significant improvements.

Perceived Way of Farming Change

Q: Has your way of farming changed because of Pragati Charcha/Bayer Seminis' digital advisory? (n = 281)



Very much improved:

“Earlier, I planted tomatoes without any specific techniques. Now, I use the staking method, mulching, and drip irrigation. I also apply high-quality pesticides.” - Male, 22

Slightly improved:

“I have started putting pesticides on time and I’m also sowing seeds at the right time.” - Male, 37

No change:

“I'm doing farming with the same method as I was doing before. I have not received much new information.” - Male, 43

Way of Farming: Top Outcomes

In line with the most consumed topics offered by KTI (see page 10), nearly half of those who report improved farming practices attribute this to better fertilizer and pesticide use.

Other way of farming improvements include*:

- Ability to select better quality seeds (17%)
- Practice of crop staking (12%)
- Improved crop spacing (11%)

Among the 14% of farmers reporting 'no change' in their way of farming, most talk about not engaging enough with the offering or a preference for traditional farming practices (13 farmers each).

*proportion of those reporting improved way of farming

Improved application of fertilizers or pesticides is the top way of farming improvement reported by farmers.

Top Outcomes For 86% of Farmers who Say Their Way of Farming Improved

Q: Please explain how your way of farming has improved. (n = 241). Open-ended, coded by 60 Decibels.

49%

talk about improved application of fertilizers or pesticides

(42% of all farmers)

“Previously, I didn’t know the correct quantity of fertilizer to use for my field area. After watching a video, I learned the proper method and quantities for applying fertilizer.” – Male, 26

29%

mention the better irrigation techniques

(25% of all farmers)

“We used to irrigate by making beds, which consumed more water and money and led to lower production. Now, with drip irrigation, we save water and money, and production has improved.” – Male, 40

22%

report practicing mulching

(19% of all farmers)

“Yes, there has been a change. Previously, I didn’t practice mulching, but now I have started. I also didn’t spray on time before, but now I ensure it’s done regularly and on schedule.” – Male, 35

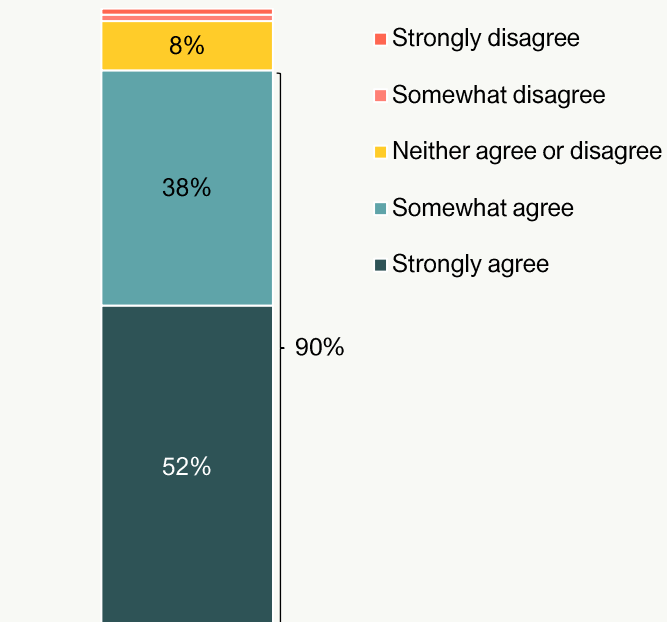
Influence on Farming Practices

More tenured farmers report a greater likelihood to 'strongly agree' that their farming practices have been influenced, compared to their less tenured peers (58% vs 44%).

9 in 10 farmers believe that their farming practices have been influenced by Key Opinion Leaders / *Saarthis*.

Perceived Influence of Opinion Leaders on Farming Practices

Q: To what extent do you agree or disagree with the following statement: The advice provided by the Key Opinion Leaders / *Saarthis* has influenced my farming practices (n = 193*)



“Earlier, I had no information about which cauliflower should be planted in which season but now, I know that, so, I'm planting as they've told in their videos.”

- Male, 35

“I have started using Seminis seed and am spraying pesticides on time as they've shown in their videos.”

- Male, 45

*Only asked to farmers who said they engaged with Local *Saarthi* / Key Opinion Leaders' digital advisory.

Crop Production

77% of farmers report an increase in farm production because of KTI. 77% achieved higher yields from the same land, indicating improved productivity.

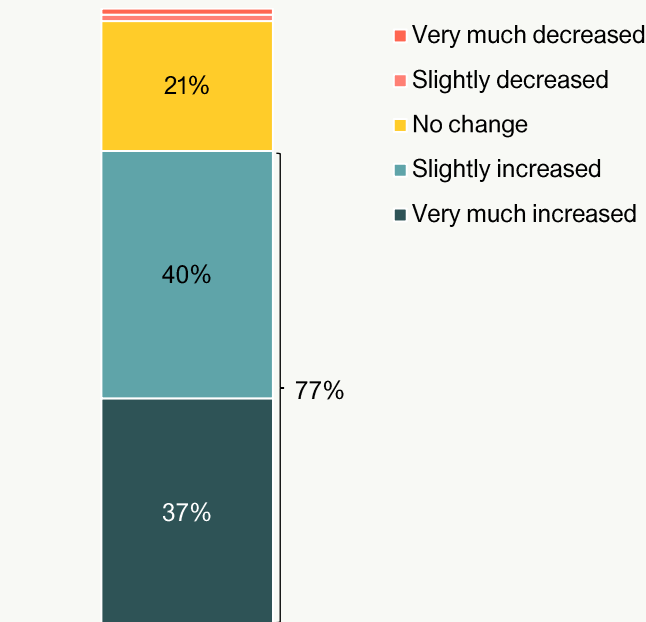
Tenured farmers are more likely to say their production has 'very much increased' compared to their less tenured peers (47% vs 27%).

Farmers receiving all three of KTI's offerings are significantly more likely to say that their production has 'very much increased' compared to those receiving one or two offerings (44% vs 29%). Expanding access to a broader range of resources and solutions could positively influence both farming practices and production outcomes.

Impact on Production

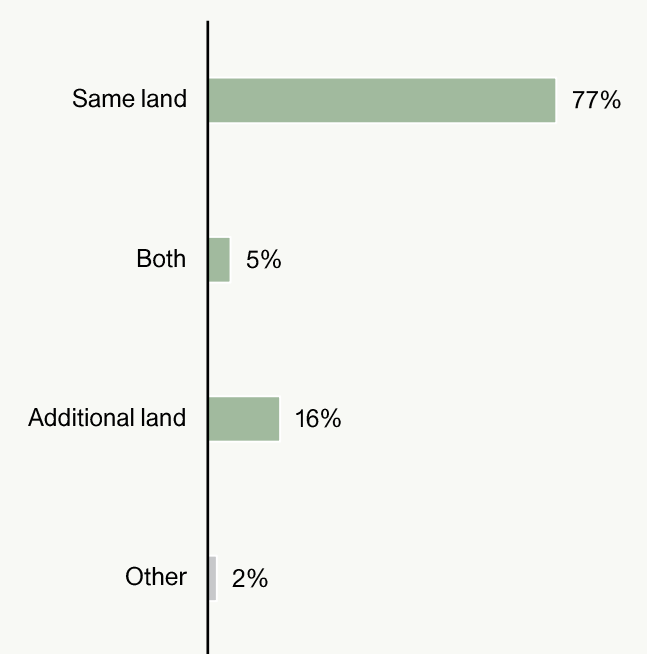
Q: Has the total production from your [crop] changed because of Pragati Charcha/Bayer Seminis' digital advisory? (n = 281)

● ● ● ● ● - BOTTOM 40%



Reasons for Increase in Production

Q: Was this increase because you planted additional land or was it from the same amount of land? (n = 218)



Income Change

74% of farmers report an increase in their crop earnings because of KTI, with 29% reporting a significant increase. This is driven by an increase in the volume of crop sold.

Like with production, tenured farmers are more likely to report 'very much increased' earnings compared to their less tenured counterparts (34% vs 23%).

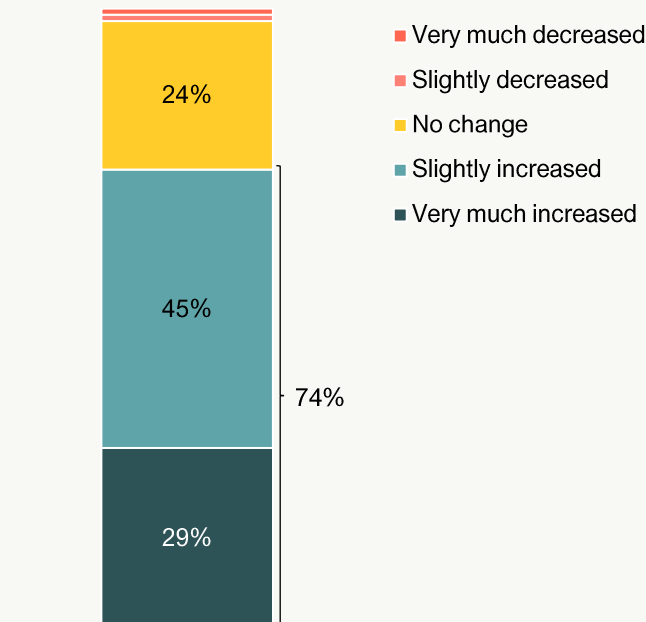
Similarly, those who access all three of KTI's offerings report more significant increases in earnings compared to others (38% vs 18%).

Farmers reporting no change in their crop income attribute this to not yet having harvested their crop (8%) or having just begun using the information they received from KTI (5%).

Changes in Income

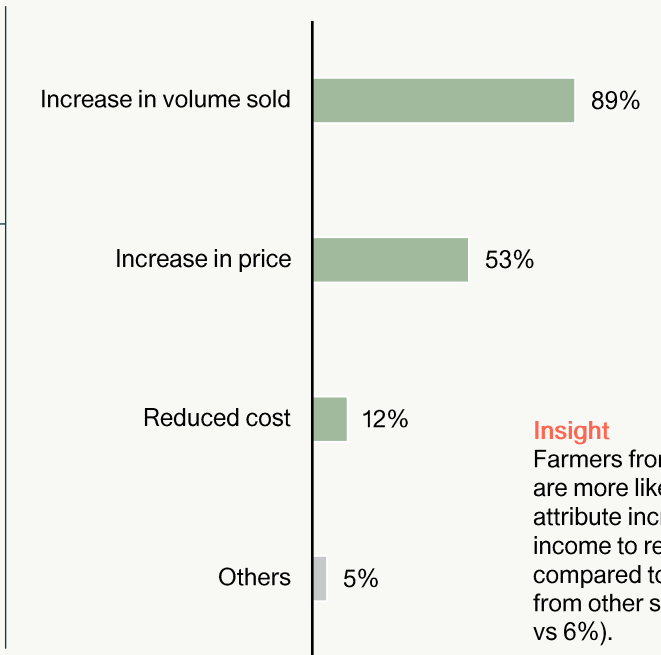
Q: Has the money you earn from crop changed because of Pragati Charcha/Bayer Seminis' digital advisory? (n = 281)

● ● ● ● ● - BOTTOM 20%



Reasons for Increased Income

Q: What were the main reasons for the increase in money earned? Select all that apply. (n = 207)



Insight

Farmers from Rajasthan are more likely to attribute increased income to reduced costs compared to farmers from other states (26% vs 6%).

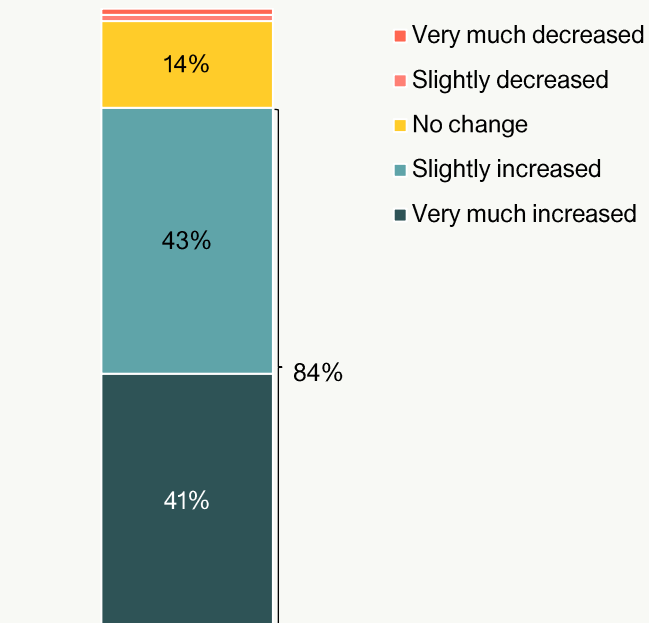
Investing in Agriculture

Farmers who report that their crop income has 'very much increased' are significantly more likely to report similar increases in their confidence to invest in farming compared to others (82% vs 25%). Improved earnings may act as a safety net for farmers to take bigger risks and make greater investments in their agriculture.

84% of farmers say their confidence to invest in agriculture has increased after engaging with KTI, and 41% say this has 'very much increased'.

Change in Confidence in Farm Investment

Q: Has your level of confidence in investing in your farm changed because of Pragati Charcha/Bayer Seminis' digital advisory? Has it: (n = 281)



“If my crop is affected by disease, I buy medicine after watching the videos. Previously, I relied on the shopkeeper’s recommendations, but now I use my own knowledge to choose the right medicine.”

- Male, 40

“I apply all the information from the videos to my farming and have started using better fertilizers and seeds. I didn’t have this level of knowledge before.”

- Male, 32

Quality of Life: Overview

More tenured farmers are significantly more likely to report that their quality of life has 'very much improved' compared to their less tenured counterparts (39% vs. 25%).

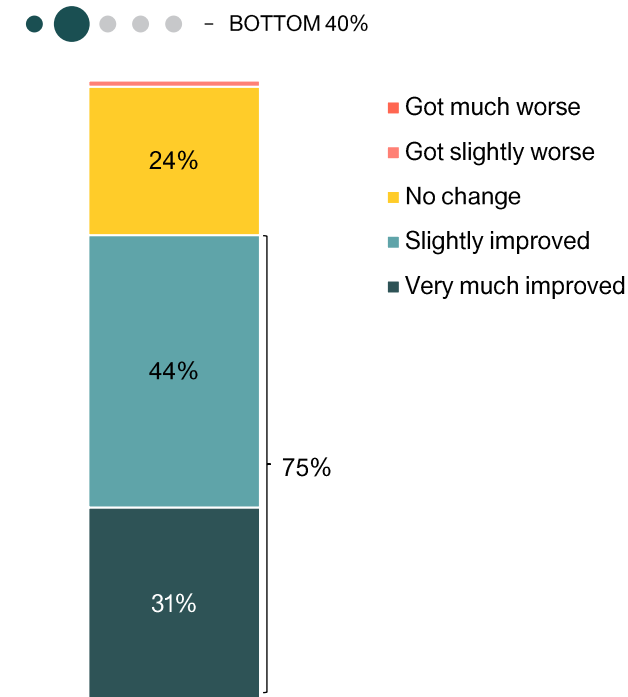
Farmers accessing all three of KTI's offerings are also slightly more likely to report that their quality of life has 'very much improved' compared to those accessing one or two offerings (34% vs 29%).

This indicates that KTI's overall impact on farmer livelihoods could be amplified through prolonged and deeper use of its various offerings.

Three quarters of farmers report quality of life improvements because of their engagement with KTI.

Perceived Quality of Life Change

Q: Has your quality of life changed because of Pragati Charcha/Bayer Seminis' digital advisory? (n = 281)



“Previously, there was a lack of water, but now I have installed a tube well. My house, which was once made of raw materials, is now gradually being rebuilt.”

- Male, 35

“Previously, my children attended a government school, but now they are enrolled in a private school. I was able to save money from selling tomatoes and even purchased a cooler.”

- Male, 30

Quality of Life: Top Outcomes

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

- Ability to afford household expenses (29%*)
- Improved time savings (22%)
- Improved knowledge of farming practices (18%)

Of the 25% of farmers who report 'no change' in their quality of life, the majority mention they have yet to adequately engage with the platform to reap any benefits (39%), or they simply did not apply any of the information on their farms (28%).

*proportion of those reporting improved quality of life.

Farmers talk about increased crop production and income as their top self reported drivers of improved quality of life.

Top Outcomes for 75% of Farmers Who Say their Quality of Life Improved

Q: Please explain how your quality of life has improved. (n = 212). Open-ended, coded by 60 Decibels.

49%

talk about **increased crop production**

(37% of all respondents)

“Earlier, crop production was less but now, crop production is increased. I put medicine on time in my crop.” – Male, 37

43%

mention **increased income**

(33% of all respondents)

“Previously, my crops were often affected by disease, leading to huge losses. Now, I spray medicine on time, preventing losses and improving crop quality. As a result, I receive better market rates and have increased my income by 1.5 times.” – Male, 33

40%

report **ability to invest in farm equipment or infrastructure**

(30% of all respondents)

“I have installed drip pipes for irrigation on my farm, saved money for the next crop, and plan to purchase additional equipment.” – Male, 33

Level of Stress

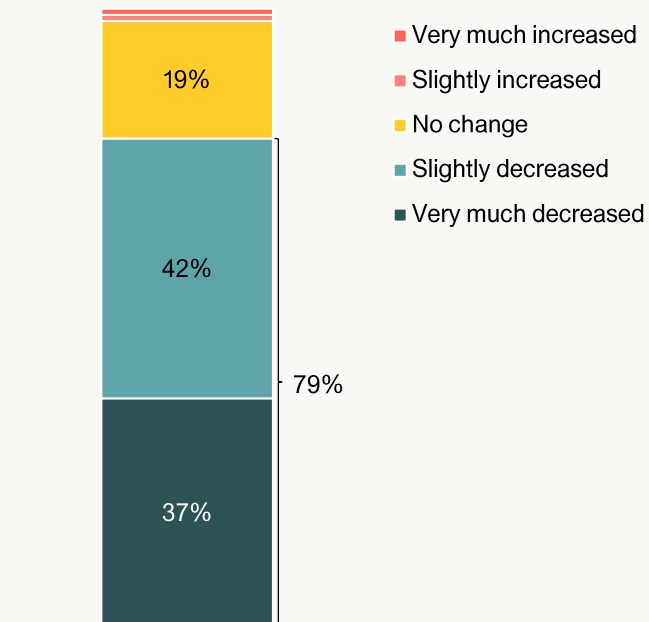
Reduced stress may contribute to greater confidence in investing. Farmers who say that their stress levels have 'very much decreased' are significantly more likely to report that their confidence to invest in their farms have 'very much increased' compared to others (79% vs 19%).

Similar to other impact metrics, tenured farmers are significantly more likely to say their level of stress has 'very much decreased' compared to their less tenured counterparts (46% vs 30%).

Nearly 4 in 5 farmers say their level of stress has decreased because of their engagement with KTI.

Impact on Livelihood Stress

Q: Has your level of stress changed because of Pragati Charcha/Bayer Seminis' digital advisory? (n = 281)



“The tips from the videos on keeping crops safe have been very helpful. I apply them and get good results. My crops stay safe, and I no longer worry about damage.”

- Male, 28

“During the COVID-19 period, I faced many challenges with farming. However, my farming has since improved partly due to the videos. My tomato crops and other vegetables are thriving, and my production has increased. I even purchased a tractor.”

- Male, 48

Table of Contents

“The digital advice through the WhatsApp chatbot is excellent—I receive instant responses, and the information is easy to understand. Whenever I need information, I get everything I need.”

- Male, 35

- Farmer Profile
 - > Demographics
 - > Advisory Topics Covered & Trusted Sources for Information
 - > First Access & Alternatives
- Impact Performance
 - > Way of Farming & Influence on Practices
 - > Production & Income
 - > Investment in Farming
 - > Quality of Life
 - > Livelihood Stress
- Platform Engagement
 - > Novelty & Frequency of Engagement
 - > Ease of Understanding
 - > Application to Work
 - > Chatbot Usage and Usefulness of Information
 - > Market Pricing & Weather Information
- Farmer Experience
 - > Farmer Satisfaction
 - > Challenges
 - > Value Perception & Trust
 - > Suggestions
- Segmentation Analysis
 - > Access to Services
 - > Tenure

Novelty and Frequency of Engagement

Half of the farmers found 'all' or 'most' of the information to be new. 4 in 5 say they revisit the digital advisory videos at least a few times every month.

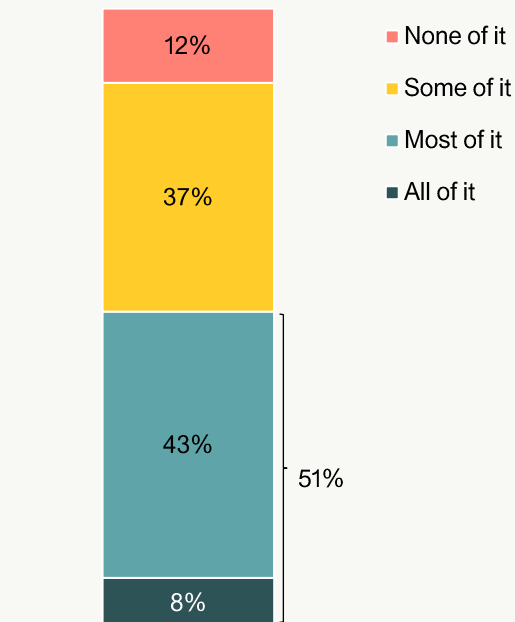
Farmers who say that 'all' or 'most' of the information was new to them are more likely to report significant improvements in their way of farming compared to others (38% vs 22%).

Additionally, these farmers are also more likely to revisit the digital advisory videos weekly than those for whom the information is less novel (44% vs. 23%).

Enhancing the novelty of KTI's content could not only increase the practical application of the information but also foster deeper or recurring engagement among farmers.

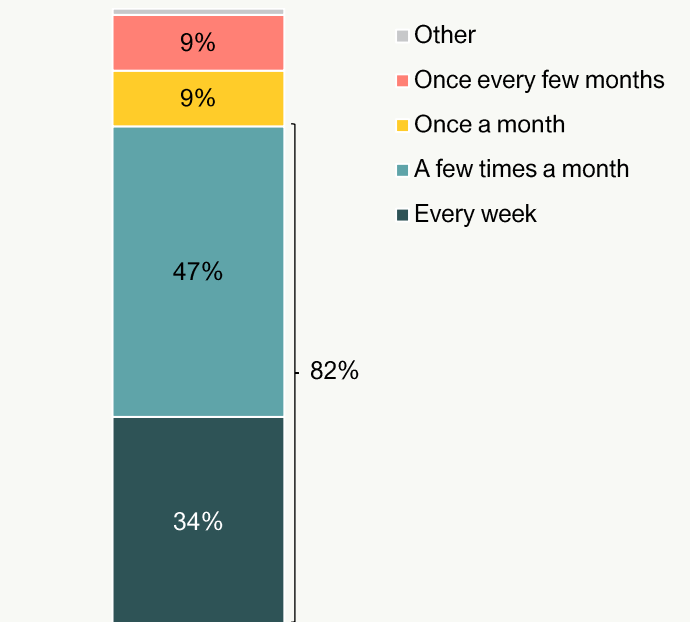
Novelty of Information

Q: How much of Pragati Charcha/Bayer Seminis' digital advisory was new information to you? (n = 281)



Frequency of Revisiting Videos*

Q: In the last 12 months, how often did you revisit Pragati Charcha/Bayer Seminis' digital advisory videos? (n = 263)



*Only asked to farmers who said they engaged with *Pragati Charcha / Saarthi* digital advisory videos in the last 12 months

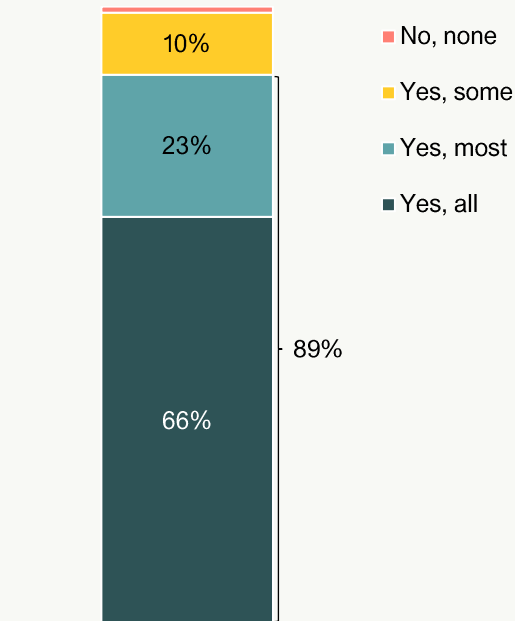
Ease of Understanding Information

Farmers who find 'all' of the information to be new to them, are more likely to also say that 'all' of the information was easy to understand compared to other farmers (86% vs 64%). This suggests that farmers who encounter entirely new information may find it more engaging or better tailored to their needs, making it easier to understand.

9 in 10 farmers find 'all' or 'most' of the information on KTI easy to understand.

Ease of Understanding of Information

Q: How much of this information was easy to understand? (n = 281)



“In their videos, they focus on our well-being with clear and easy-to-understand information. Their method of delivering content is excellent, and their language is easily understandable.”

- Male, 31

“They share valuable information in a clear and effective way, covering seed varieties and nursery preparation methods. I can easily understand all their content from start to finish.”

- Male, 60

Application to Work

55% report applying only some or none of the information. Lack of equipment or material is cited as the top application barrier.

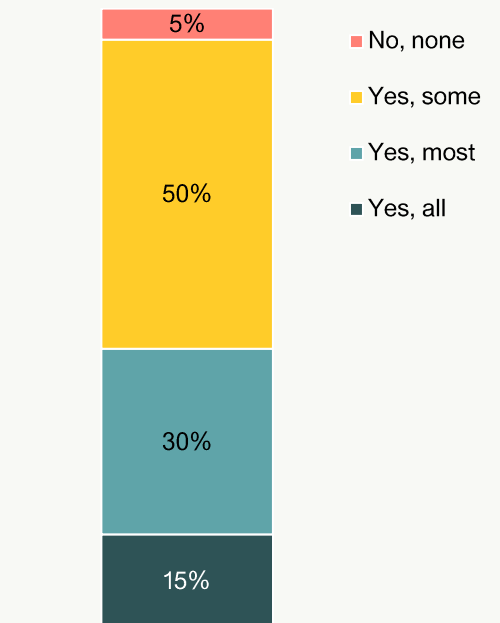
Farmers accessing the WhatsApp Chatbot are significantly more likely to have applied 'all' or 'most' of the training, compared to those only accessing other video trainings (50% vs 29%).

Those who applied 'all' of the information are also more likely to say that their way of farming has 'very much improved' compared to others (45% vs 28%).

The top reasons as to why farmers are not able to apply all the training are shown on the right. Others include lack of irrigation sources (7 farmers), delays in information delivery (7 farmers) and language barriers (1 farmer).

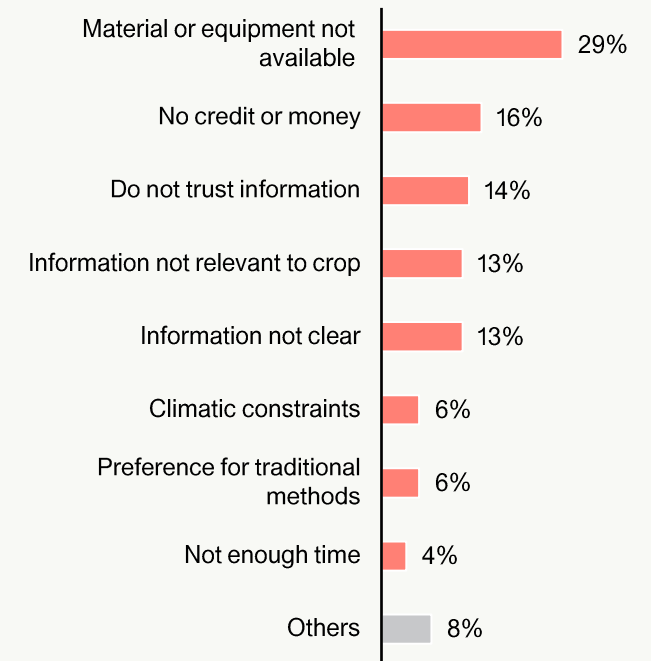
Application of Information

Q: How much of this information did you apply to your farming? (n = 281)



Barriers to Information Application

Q: Would you mind sharing with me what prevented you from applying all of the information? (n = 239)



Most Important Information

Farmers were asked to describe, in their own words, the single most important piece of information they received through KTI.

Pest and virus management are the most covered topics on KTI, consumed by 88% and 75% of farmers respectively (see page 10). This indicates a strong appetite among farmers for content on these subjects, which they find particularly valuable.

Besides the topics shown on the right, others include:

- Mulching techniques (10%)
- Drip irrigation techniques (10%)
- Weed management solutions (9%)

Farmers identify topics around disease and pest management techniques as the most important piece of information they received through KTI.

Most Important Piece of Information

Q: What was the single most important piece of information you received? (n = 281). Open-ended, coded by 60 Decibels.

50%

talk about **disease or pest management techniques**

“They explained how to control pests in crops and which medicines to use, which I found very helpful.” – Male, 32

30%

mention **correct seed recommendation**

“The information on which tomato, chili, and bottle gourd seeds to select was helpful, including guidance on how to plant them.” – Male, 26

13%

report **nursery management**

“The information about setting up a tomato nursery was very important.” – Male, 52

WhatsApp Chatbot: Usage and Usefulness

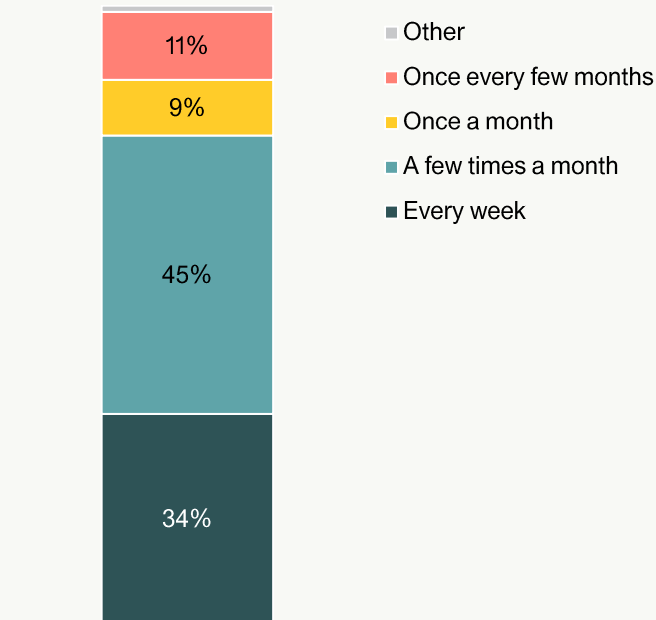
Of the 83% of farmers using the WhatsApp chatbot, a third say they use it every week. More than half find the advice received through the chatbot to be 'very useful'.

Farmers who engage with the WhatsApp chatbot every week are more likely to find 'all' or 'most' of the information on KTI to be new to them compared to others who engage less frequently with the chatbot (70% vs 42%). This suggests that novelty of information could be enhancing stickiness or the willingness of a farmer to engage frequently.

Farmers who find the chatbot information to be 'very useful' are more likely to report significant way of farming improvements compared to others (67% vs 38%). This is likely indicative of greater application of information received through the chatbot.

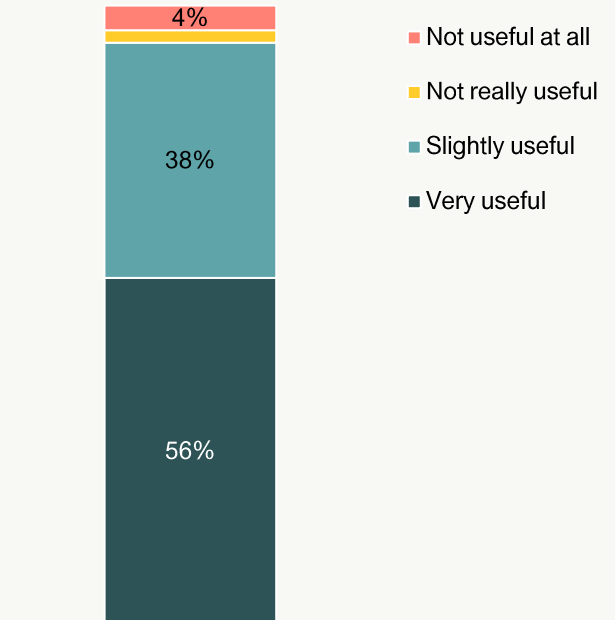
Engagement with WhatsApp Chatbot

Q: In the last 12 months, how often did you engage with Pragati Charcha/Bayer Seminis' WhatsApp chatbot? (n = 228*)



Perceived Influence of WhatsApp Chatbot

Q: To what extent was the information or advice you received through the WhatsApp chatbot useful for your farming activities? (n = 233*)



* Only asked to farmers who said they engaged with WhatsApp chatbot in the last 12 months

WhatsApp Chatbot: Market Price & Weather Information

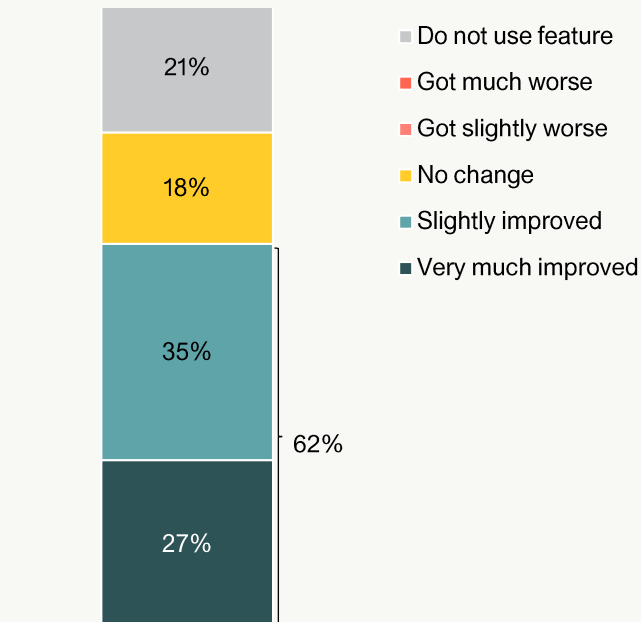
Farmers accessing the Mandi Price offering are more likely to report 'very much increased' crop earnings compared to non-users (35% vs 16%). Better knowledge of current prices may be improving a farmers' ability to negotiate a good price in the market, resulting in higher earnings.

Farmers using the chatbot every week are more likely to report significant improvements in their ability to take preparatory actions on their farm compared to others (36% vs 19%). Recurring engagement with weather information may be helping farmers plan better for the upcoming seasons.

62% of chatbot users say that Mandi Price has improved their ability to get a better market price. 72% say their ability to prepare for shocks has improved because of the weather information.

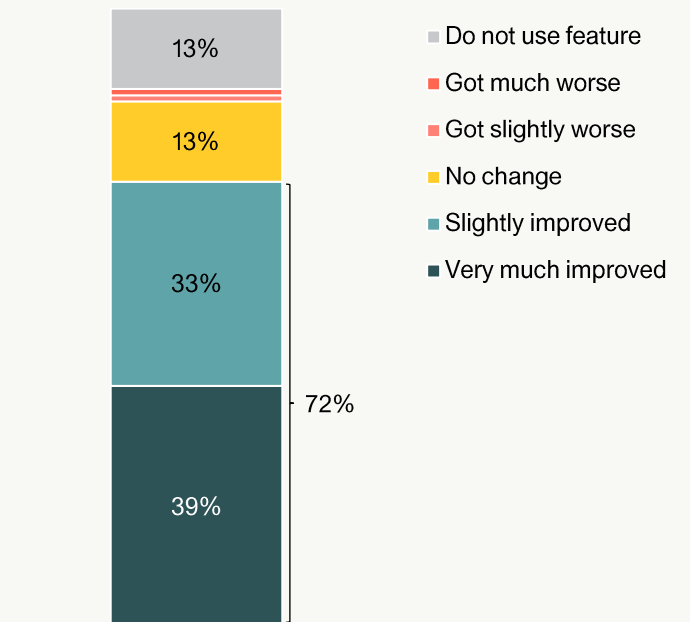
Change in Market Price Received

Q: Has your ability to get a better market price for your crop changed because of Mandi Price? (n = 234*)



Change in Preparedness for Weather Shocks

Q: Has your ability to undertake preparatory actions on your farm changed because of the weather information on the Bayer Seminis chatbot? (n = 228*)



* Only asked to farmers who said they engaged with Whatsapp Chatbot in the last 12 months

Table of Contents

“Through digital advice, I learned about diseases that affect tomatoes and followed the guidance on which medicines to use accordingly. This helped reduce costs.”
- Male, 20

- Farmer Profile
 - > Demographics
 - > Advisory Topics Covered & Trusted Sources for Information
 - > First Access & Alternatives
- Impact Performance
 - > Way of Farming & Influence on Practices
 - > Production & Income
 - > Investment in Farming
 - > Quality of Life
 - > Livelihood Stress
- Platform Engagement
 - > Novelty & Frequency of Engagement
 - > Ease of Understanding
 - > Application to Work
 - > Chatbot Usage and Usefulness of Information
 - > Market Pricing & Weather Information
- Farmer Experience
 - > **Farmer Satisfaction**
 - > **Challenges**
 - > **Value Perception & Trust**
 - > **Suggestions**
- Segmentation Analysis
 - > Access to Services
 - > Tenure

Farmer Satisfaction: Overview

The Net Promoter Score® is a gauge of satisfaction and loyalty. Anything above 50 is considered excellent. A negative score is considered poor.

Satisfaction with KTI is highest among farmers who access all three offerings (NPS of 72), while those only accessing standard *Pragati Charcha* videos report the least satisfaction (NPS of 45).

Farmers who find ‘all’ of the information on KTI easy to understand also report significantly higher satisfaction levels compared to others (NPS of 70 vs 43).

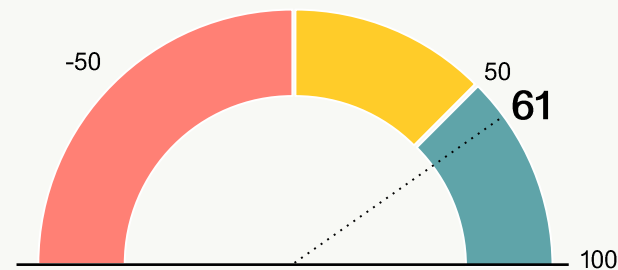
Clear, easy-to-understand information, that is relevant to a farmer's crop can drive satisfaction. Learn more on the next page.

KTI's offerings have a Net Promoter Score® of 61, which is excellent and in the top 20% of the 60dB Farmer as Customer benchmark.

Net Promoter Score® (NPS)

Q: On a scale of 0-10, how likely are you to recommend [Pragati Charcha/Bayer Seminis' digital advisory] to a friend or family member, where 0 is not at all likely and 10 is extremely likely? (n = 281)

● ● ● ● ● - TOP 20%



NPS = % Promoters — % Detractors

9-10 likely to recommend 0-6 likely to recommend

Promoters

“The digital consultation is good. Bayer’s product recommendations and advice on pesticide spraying were beneficial for me, especially pest management information.

- Male, 20

Passives

“Bayer videos focus on crop management, explaining symptoms and how to identify diseases, but they don’t specify which medicines can cure the diseases.”

- Male, 32

Detractors

“I joined the chatbot six months ago but stopped using it because it wasn’t working. I wanted to check the market rate for my area, but it only displayed a different state’s rates.”

- Male, 25

Farmers Satisfaction: NPS Drivers

Promoters value useful seed-related and pest management information whereas Passives and Detractors want more comprehensive information.

64% are Promoters :)

They love:

1. Useful seed-related information
(62% of Promoters / 40% of all farmers)
2. Helpful pest management guidance
(56% of Promoters / 36% of all farmers)
3. Increased crop yield
(40% of Promoters / 26% of all farmers)

“Information about good okra seeds is available, as well as advice on pesticides to protect plants from viruses along with proper irrigation advice.” - Male, 40

32% are Passives :\

They like:

1. Helpful pest management guidance
(54% of Passives / 17% of all farmers)
2. Useful seed-related information
(43% of Passives / 14% of all farmers)

They want to see :

1. More comprehensive information
(29% of Passives / 9% of all farmers)

“When I seek information about tomato farming, they mention Seminis seeds but don’t specify which seeds are available in the local market, leaving the information incomplete.” - Male, 25

3% are Detractors :(

They want to see:

1. More comprehensive information
(7 farmers)
2. Simple and easy to understand content
(5 farmers)
3. On-ground support
(4 farmers)

“They should share videos with simpler methods for farmers to easily understand. Some farmers who grasped the information about medicines used them effectively on their soybean crops, resulting in good production, while those who couldn’t understand faced crop losses.” - Male, 32

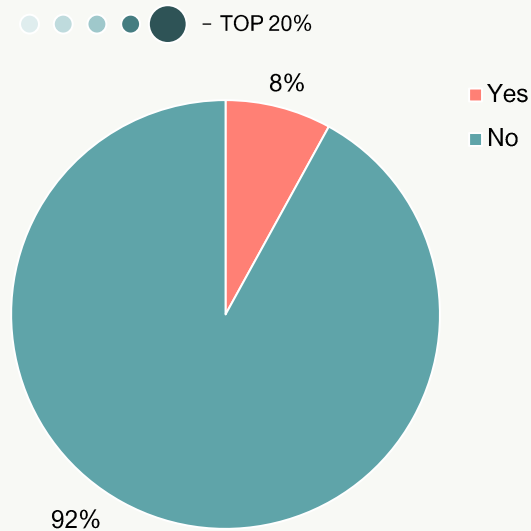
Challenges

8% of farmers report experiencing a challenge with KTI. Inaccurate or irrelevant information are the top issues reported.

Farmers from Madhya Pradesh are significantly more likely to report facing challenges with KTI compared to farmers from other states (13% vs 4%).

Farmers Reporting Challenges

Q: Have you experienced any challenges with Pragati Charcha/Bayer Seminis' digital advisory? (n = 281)



Top Challenges

Q: Please explain these challenges you have experienced. (n = 22). Open-ended, coded by 60 Decibels.

1. Incorrect or incomplete information

(41% of farmers facing a challenge / 3% of all farmers)

“I didn’t get good results after seeking advice for my tomato crop from the chatbot and applying the recommended pesticide.” - Male, 26

2. Lack of relevant information

(41% of farmers facing a challenge / 3% of all farmers)

“When two types of diseases affect my crops, I struggle to get the necessary information. At the store, I often buy other products instead of Bayer's because I don't have enough knowledge about their products.” - Male, 45

3. Recommended product authenticity concerns

(18% of farmers facing a challenge / 1% of all farmers)

“Their packaging isn't good because they use local packets, making it hard for me to tell if the seeds are genuine or fake.” - Male, 42

Trust and Value Perception

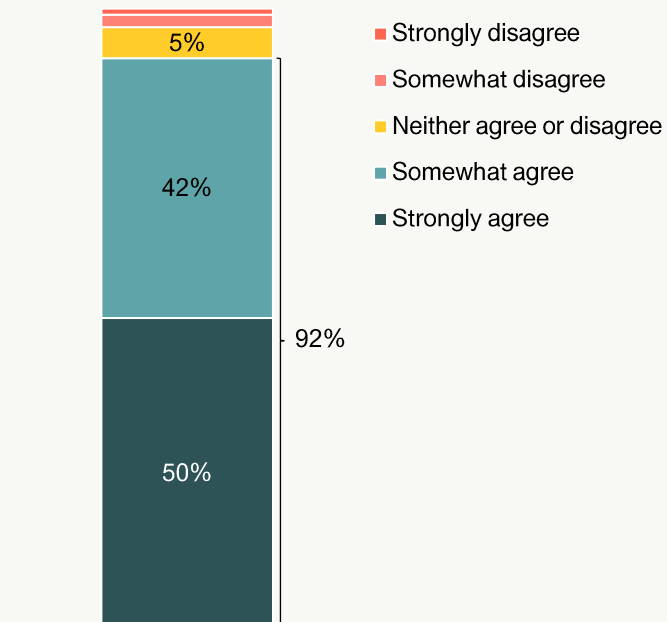
The degree of engagement with the intervention may determine the value that farmers derive from it. Those who engage frequently* with KTI's offerings are more likely to find the value offered to be 'very good' or 'good' compared to those engaging less frequently (86% vs. 71%).

Similar to NPS, farmers receiving all 3 offerings are more likely to find the value offered by KTI to be good compared to those receiving only one or two of the offerings (89% vs. 74%). The same trend holds true for farmers 'strongly' agreeing to KTI putting their interests first.

Nearly all farmers agree that KTI puts their interests first. 82% of them find the value offered by KTI to be 'good' or 'very good'.

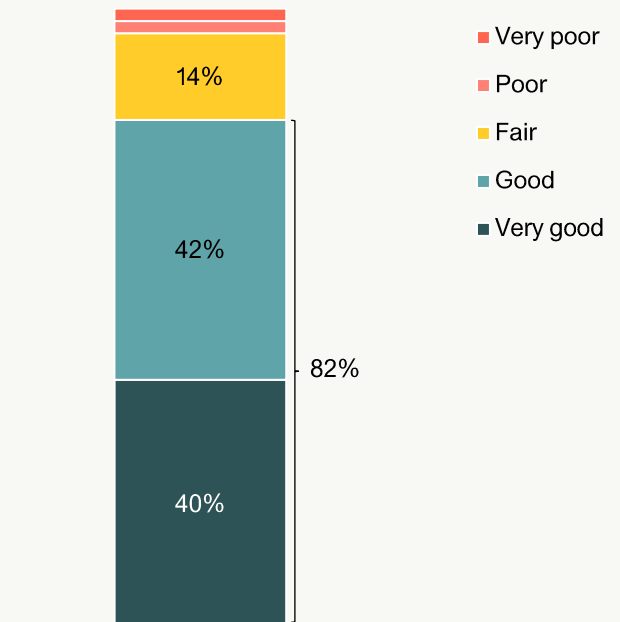
Farmer Perception of KTI

Q: To what extent do you agree or disagree with the following statement: Pragati Charcha/Bayer Seminis' digital advisory puts my interest first. (n = 281)



Value Perception

Q: Do you think the value offered by Pragati Charcha/Bayer Seminis' digital advisory is...? (n = 281)



*Note: 'Frequently' classifies those reporting that they engage with KTI 'every week' or 'a few times a month'

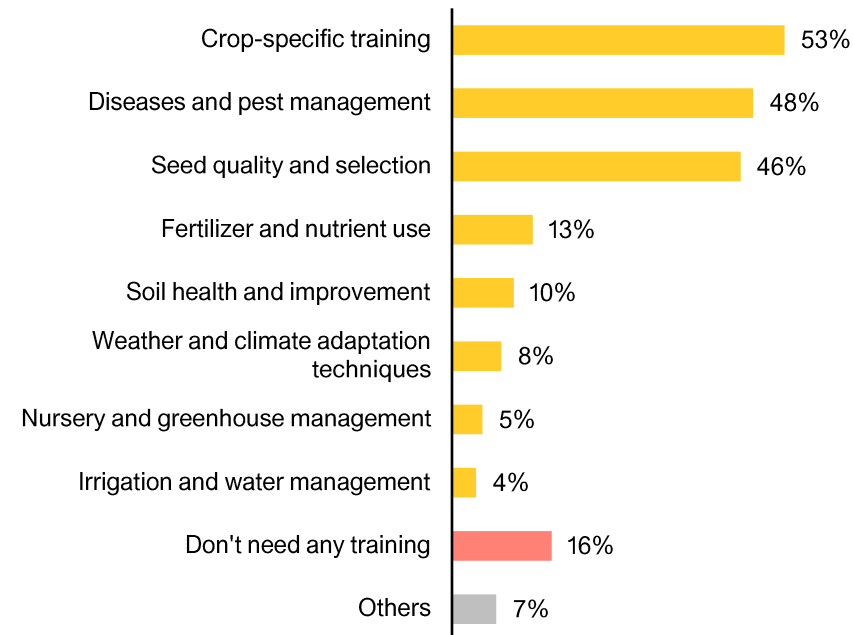
Farmer Suggestions

84% of farmers spoke about wanting more training topics in the future, which are shown to the right. Others include requests for more farm visits and more training on modern farm technology

Looking ahead, half of the farmers want more crop-specific training and information on disease and pest management.

Suggestions For Improvement

Q: In the future, what other topics would you like more training from Pragati Charcha/Bayer Seminis' digital advisory? Open-ended, coded by 60 Decibels. (n = 281)



“I want more information about, tomato, cauliflower, soyabean crop farming and I want to know more about these plant disease and medicines.”

- Male, 24

“I need information about diseases affecting apple, bean, and pea crops. It would be helpful if they shared this information before the crop season.”

- Male, 36

Table of Contents

“Because of the advice in the Pragati Charcha video, I now know market rates and sell my crops at the right time, earning good profits. I reinvest these earnings into my next crop and have even built my house with the profits.”

- Male, 24

- Farmer Profile
 - > Demographics
 - > Advisory Topics Covered & Trusted Sources for Information
 - > First Access & Alternatives
- Impact Performance
 - > Way of Farming & Influence on Practices
 - > Production & Income
 - > Investment in Farming
 - > Quality of Life
 - > Livelihood Stress
- Platform Engagement
 - > Novelty & Frequency of Engagement
 - > Ease of Understanding
 - > Application to Work
 - > Chatbot Usage and Usefulness of Information
 - > Market Pricing & Weather Information
- Farmer Experience
 - > Farmer Satisfaction
 - > Challenges
 - > Value Perception & Trust
 - > Suggestions
- Segmentation Analysis
 - > Access to Services
 - > Tenure

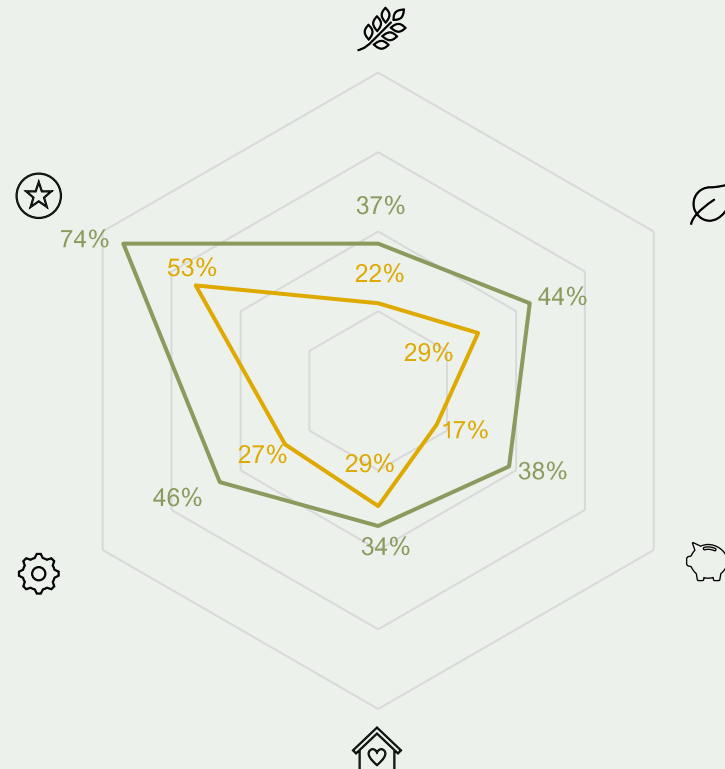
Performance Snapshot: Engagement Depth

Farmers who access all three of KTI's offerings report significantly deeper impact and higher satisfaction than those accessing one or two offerings.

Farmers who access all three offerings are more likely to report significant improvements in their way of farming, production, crop income, quality of life and stress reduction compared to those accessing one or two offerings.

In the future, focus on improving farmer engagement with KTI by promoting all features of the intervention and potentially offering specialized training content on how to access them. This could help deepen farmer impact.

Trends by Depth on Engagement With KTI



Key



1-2 offerings
n = 126



All 3 offerings*
n = 155



Way of Farming
% 'very much improved'



Production
% 'very much increased'



Money Earned
% 'very much increased'



Quality of Life
% 'very much improved'



Stress
% 'very much decreased'



Satisfaction
% Promoters

*Pragati Charcha videos, Saarthi advisory videos, and WhatsApp chatbot

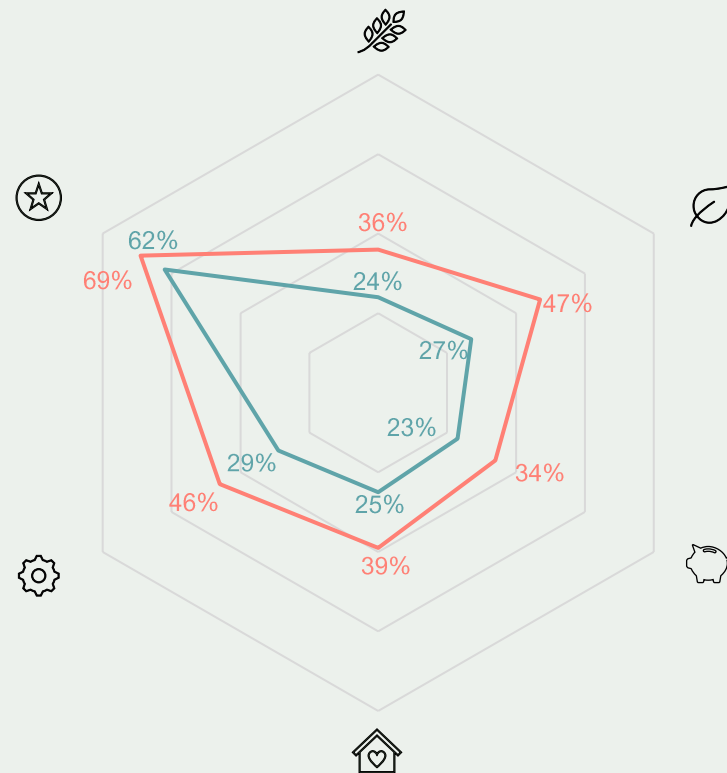
Performance Snapshot: Tenure

Tenured farmers are more likely to report deeper impact compared to those with shorter engagement periods.

All key metrics reported to the right have been segmented to show differences between farmers who have been engaging with KTI for more than 5 months compared to those engaging for 5 months or less. Tenured farmers are more likely to report significant improvements in their way of farming, crop production, income, quality of life and stress reduction compared to their less tenured counterparts.

Encouraging greater engagement through longer term / repeat use of KTI's offerings can be a catalyst to maintain sustained farmer impact.

Trends by Tenure with KTI



Key



<= 5 months
n = 146



> 5 months
n = 128



Way of Farming
% 'very much improved'



Production
% 'very much increased'



Money Earned
% 'very much increased'



Quality of Life
% 'very much improved'



Stress
% 'very much decreased'



Satisfaction
% Promoters

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. Throughout the report KTI's results are compared with the 60dB Farmer as a Customer Benchmark. Information on the benchmarks is found below:

KTI Farmers	
# farmers	281
60dB Farmer as Customer Benchmark	
# companies	26
# farmers	6,500+
60dB Global Agriculture Benchmark:	
# companies	79
# farmers	15,500+

	KTI Farmers	60dB Global Agriculture Benchmark	60dB Farmer as Customer Benchmark	60dB India Agriculture Benchmark
Profile and Access				
% female respondents	2	29	31	3
% accessing service for the first time	88	72	84	82
% reporting no alternatives	77	65	83	83
Impact				
% way of farming 'very much improved'	30	35	52	29
% production 'very much increased'	37	38	39	28
% money earned 'very much increased'	28	36	42	13
% quality of life 'very much improved'	31	37	39	25
Satisfaction				
Net Promoter Score®	61	43	46	43
% reporting challenges	8	20	20	15

Summary Of Data Collected

281 phone interviews completed between September - October 2024.

Methodology

Survey mode	Phone
Country	India
Language	Hindi
Dates	September – October 2024
Sampling	Random sample of 281 farmers using KTI's offerings. Sampled from a database of 1,086 of KTI farmers.
Response rate	42%
Average time per interview	17 mins

Accuracy

Confidence Level	~90%
Margin of error	~4%

Research Assistant Gender

Female	3
Male	5

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, Anurag Bajpai and Mallika Hatimuria for their support throughout the project. This work was generously sponsored by Bayer Corporation.

Since receiving information from Bayer, my production has improved, and naturally, my income has increased. Now, I can easily meet my family's needs.

We now use

> mulching

> drip irrigation

after receiving information from Bayer.

Project Team

Ramiro Rejas

Malavika Rangarajan

Jacob Thamarappally

Charles Sebastian

Vikas S R

For queries, please email:

ramiro@60decibels.com;

malavika@60decibels.com