



SHAMBA SHAPE UP SERIES 9

KNOWLEDGE, ATTITUDE AND PRACTICE SURVEY

DECEMBER 2019

PREPARED BY: **GEO POLL**

PREPARED FOR: **MEDIAE KENYA**

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EXECUTIVE SUMMARY

Shamba Shape Up Series 9 has been successful in providing audiences with information that they need to enable them improve their farming practices. Viewers are able to remember topics aired in the show, indicating interest in additional topics recommended.

Shamba Shape Up Series 9 broadcast on Citizen TV at 14:00pm on Saturday in English and at 13:30pm on Sunday in Kiswahili in Kenya. Viewership figures for Citizen TV show that the programme reached over 4 million households, or approximately 6 million viewers each week in English and Swahili over half the year in Kenya alone. It was also broadcast on DSTV and a number of free to air digital channels, as well as on Mediae's Youtube Channel [Africaknowledge Zone](#).

FINDINGS BY TOPIC

Mango

At least 40% of the viewers from the pre and post-broadcast surveys grow mango trees on their farm. The method used in for harvesting mangoes also changed post airing of the show to having a majority pick them from the tree using a stick/net compared to shaking the tree.

Maize

There was a slight increase in viewers from the post survey (89%) who reported to grow maize last season compared to the pre survey (85%). As this is the most popular crop grown by both viewers and non-viewers of the show, Shamba Shape Up could impact many farmers by airing topics covering maize in future.

Compared to the popular way of detecting dryness in maize through biting, consumers adopted a new method after viewing the show by placing it in a bottle that has salt. As there was a significant change in viewers using this method, farmers would benefit from additional programming on Shamba Shape Up, which shows famers ways of taking care of maize after harvesting so as to avoid spoilage.

There was a notable increase (+14%) in viewers that adapted the use of nylon sacks with two plastic liners in the post-broadcast survey compared to the viewers from the pre survey. There was a decline in the use of sisal sacks by viewers from the post survey (18%) compared to viewers from the pre survey (28%), which indicates that viewers changed their storage practices away from sisal sacks, towards nylon sacks with plastic liners. Better storage methods have been adapted post viewership of the show suggesting that advisory provided by SSU around this issue was well received and could benefit more farmers if emphasized in future episodes. This could help reduce the number of harvested maize that gets spoilt.

Pesticides

At least half of the viewers associate Syngenta Company for selling pesticides. Osho Chemical follows next with an average of 30% of respondents associating the company with pesticides. There was a notable increase in viewers who associated pesticides with Osho chemicals, with 19% of viewers recognizing the brand pre broadcast and 28% of viewers recognizing the brand in the post survey.

Dairy

Dairy Meal, followed closely by Maclik Super had the highest ranking when it comes to supplements given to cows. There was notable increase amongst viewers from the post survey (41%) who said they used Maclik Super compared to viewers from the pre survey (34%). At the same time Dairy Meal usage dropped amongst the viewers from the post survey (34%) compared to the viewers from the pre survey (43%).

There was a significant increase by 12% in the number of the viewers that sprayed their cows on a weekly basis from the pre broadcast survey (44%) compared to the post broadcast survey (56%) which indicates that the show was effective in educating farmers on this issue.

Insurance

At least 70% of respondents reported to have an NHIF/Health insurance cover. Only 2% and 3% respondents held crop and livestock insurances respectively. This shows that even amongst farmers, purchase of agricultural insurance remains low. This shows that there is potential for growth in agricultural insurance schemes that are accessible to small-scale farmers.



I

INTRODUCTION

I. INTRODUCTION

MEDIAE

Mediae is a production company based in Nairobi, Kenya (with an office in the UK) that specializes in producing high quality ‘edutainment’ programming for the East African market on radio and TV and multimedia channels. Current productions include Shamba Shape Up, Shamba Chef, Don’t Lose The Plot, Know Zone and Mpeke Town.

SHAMBA SHAPE UP SERIES 9

Shamba Shape Up is East Africa’s leading agricultural TV program. The program is a reality make over show filmed on smallholder farms addressing the problems of the farmers to increase production and encouraging farming as a business in Kenya and Tanzania.

It was broadcast on Citizen TV at 14:00pm on Saturday in English and at 13:30pm on Sunday in Kiswahili in Kenya. It was also broadcast on DSTV and a number of free to air digital channels, as well as on Mediae’s Youtube Chanel “Africaknowledge Zone”. Viewership figures for Citizen TV show that the programme reached over 5 million viewers each week in English and Swahili over half the year in Kenya alone.

PARTNERS SERIES 9

Partners	Topic
Coopers	Animal Feed and Hygiene Products
Osho	Agrochemicals for Pests & Diseases
Rockefeller Foundations	Reducing Post Harvest Losses in Mango and Maize
Simba Corp	Farm transportation and equipment
Safaricom	Digifarm Platform
CIMMYT: International Maize and Wheat Improvement Center	Conservation Agriculture
ZALF: Leibniz Centre for Agricultural Landscape Research	Kitchen Gardens, Tied Ridges, Clean Cookstoves
Lloyds Bank	Agricultural Insurance
iShamba	iShamba Mobile Platform

LOCATIONS FILMED IN

Series 9 of Shamba Shape Up was filmed in following locations: Kiambu, Limuru, Makueni, Murang'a, Embu, Makueni, Molo, Embu, Kinangop, Bungoma, Nakuru

RESEARCH DESIGN

The Knowledge, Attitude and Practice (KAP) survey for Shamba Shape Up Series 9 was conducted in two waves. In March 2019, GeoPoll carried out the pre-broadcast mobile phone survey with 800 farmers. In October 2019, GeoPoll carried out the second wave post-broadcast survey.

Pre and post broadcast differences are becoming more challenging to detect over time, as Shamba Shape Up has been broadcast for eight years with a regular viewership of approximately 2.5 million households (5 million viewers) in Kenya and 1.5 million households (3 million viewers) in Tanzania. As a result, finding small holder farmers who have not been exposed to the content one way or another is increasingly difficult to find.

In order to address this problem, Mediae for the first time, commissioned GeoPoll, a leading regional research organization in mobile surveys, to conduct a mobile survey, by sampling people through its extensive database of users across Kenya. This method allowed for a more effective sampling of farmers who have not watched SSU. The Pre research was conducted from March 6th – March 7th, 2019. The post survey was conducted from October 3rd to October 16th, 2019.

The survey was conducted via SMS text where respondents received an SMS message with the survey questions. The surveys were conducted in Nairobi, Kakamega, Bungoma, Nyeri, Kiambu, Kisumu, Meru, Uasin Gishu, Embu, Eldoret, Bomet, Kisii, Kitale, Machakos, Muranga, Makeni, Trans Nzoia and Muranga counties. 800 respondents were interviewed in total in each survey wave with an equal gender split.

The sample split between

- 1: Those who watch TV and have not watched SSU in the past 6 months
- 2: Those who watch TV and have watched SSU in the past 6 months.

In the pre broadcast the sample split achieved between those who have watched SSU and those who have not watched SSU show was equal 400 each while in the Post broadcast the sample for SSU was more by n= 452 while those who have not watched n=348. This may be attributed to the show concluding airing just before the survey was administered.

This excludes a large portion of viewers who do not have a TV and watch SSU outside the home, which according to a report by [Reading University](#) (2014) could be 43% of total viewership.

The survey sections covered included:

- Demographic Overview
- Sources of Agricultural Information
- Key Issues: Mangoes, Maize, Dairy, Seed, Pesticides, Insurance,

VIEWERSHIP DATA

According to research data compiled by a consortium led by [Reading University in Kenya](#) (2014), SSU is watched in 13% of households, including those without TV, in rural areas. This constitutes 39% of the total number of people who watch TV once a month. In 2014, this indicated that approximately 5 million people in Kenya watched SSU at least once a month with 43% of viewers watching TV outside their homes.

In Kenya, Shamba Shape Up airs on Citizen TV which continues to dominate the market. The impact on viewership of various channels is clearly illustrated below.

Viewership data from Geopoll for Shamba Shape Up Series 9 shows that Reading Universities et al.'s viewership findings are still relevant and have in fact risen (*see Table and Graphs below*). The average viewership for SSU 9 on Saturdays (English), was 1,9 million households, and on Sundays (Kiswahili) there were 2 million households watching Citizen during the period the programme aired (13th April – 14th September 2019). The same study shows that only 16% of viewers watch the programme in both English and Kiswahili.

Subsequently, SSU Series 9 had an audience of approximately 3 million households who watched the programme once only. The Kenyan National Bureau of Statistics shows that there are an average of 4.4 people per household. Using a conservative estimate of 2 viewers per household, these audience household figures can be extrapolated to a minimum of 6 million viewers of Shamba Shape Up in Kenya alone.

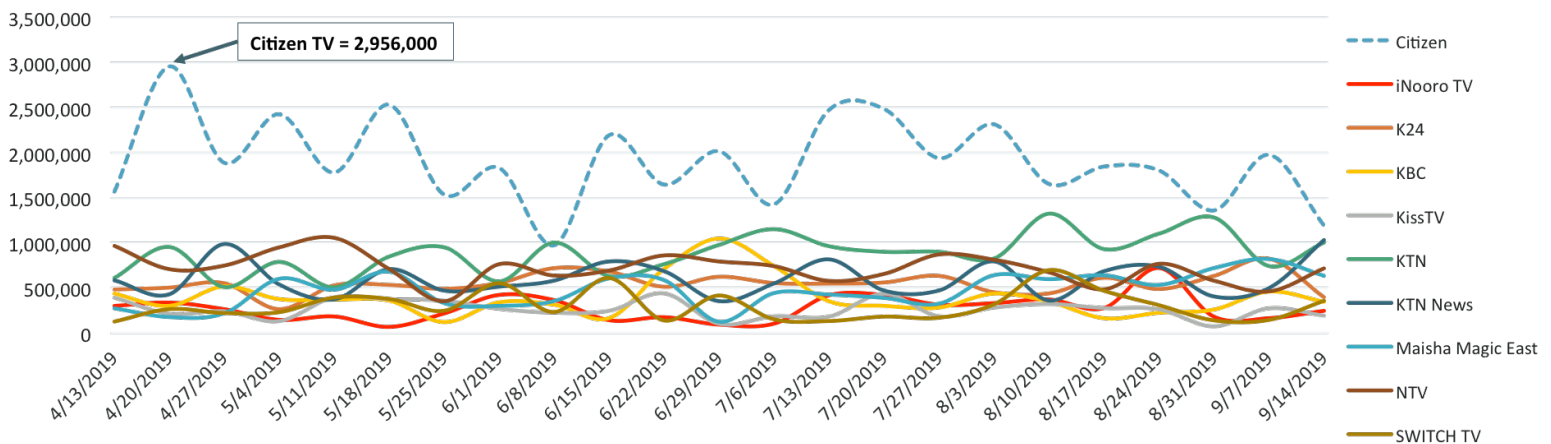
Table: Viewership Figures Shamba Shape Up Series 9

TV Show Air Dates	Saturday - 14:00 - 14:30	TV Show Air Dates	Sunday - 13:30 - 14:00
13/04/19	1,570,000	14/04/19	2,196,000
20/04/19	2,956,000	21/04/19	2,507,000
27/04/19	1,889,000	28/04/19	2,240,000
04/05/19	2,427,000	05/05/19	1,591,000
11/05/19	1,781,000	12/05/19	1,731,000
18/05/19	2,532,000	19/05/19	1,827,000
25/05/19	1,536,000	26/05/19	2,040,000
01/06/19	1,832,000	02/06/19	1,917,000
08/06/19	974,000	09/06/19	1,459,000
15/06/19	2,194,000	16/06/19	1,913,000
22/06/19	1,647,000	23/06/19	1,569,000
29/06/19	2,016,000	30/06/19	1,844,000

06/07/19	1,428,000	07/07/19	1,735,000
13/07/19	2,475,000	14/07/19	1,928,000
20/07/19	2,485,000	21/07/19	2,630,000
27/07/19	1,940,000	28/07/19	2,601,000
03/08/19	2,315,000	04/08/19	2,544,000
10/08/19	1,654,000	11/08/19	2,251,000
17/08/19	1,847,000	18/08/19	2,537,000
24/08/19	1,804,000	25/08/19	2,119,000
31/08/19	1,361,000	01/09/19	1,779,000
07/09/19	1,977,000	08/09/19	2,369,000
14/09/19	1,194,000	15/09/19	1,663,000
AVERAGE	1,905,826		2,043,043

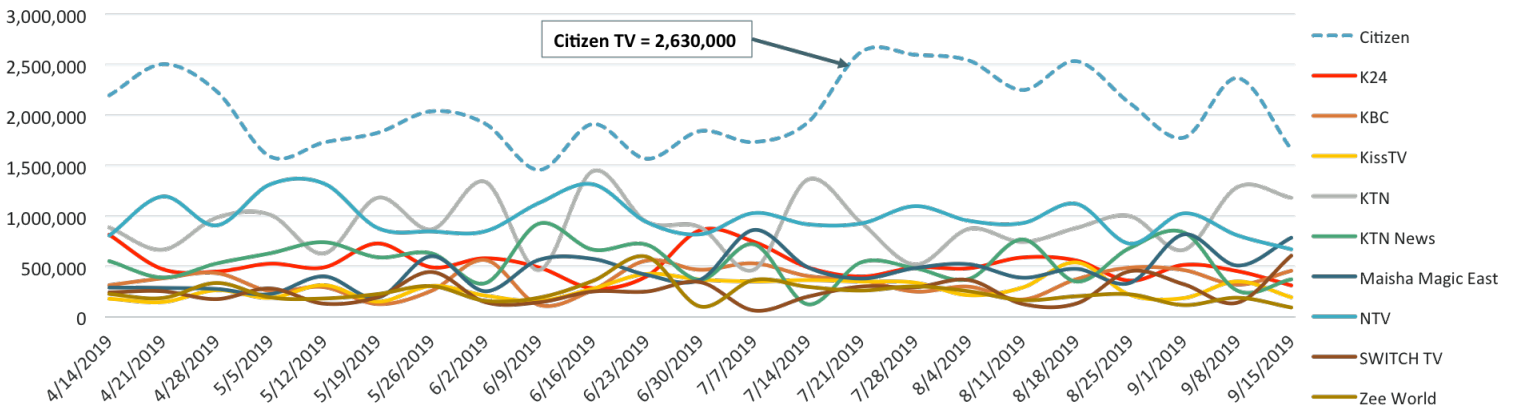
Interestingly the peak viewership for SSU 9 English was nearly 3 million households (2,956,000) (see Graph 1, 3). The issues being discussed during those episodes were Climate Change Adaptation, Mangoes, Avocados and Dairy Cows. For the Kiswahili version on Sunday, peak viewership was at 2,6 million (2,630,000), when an episode was broadcast looking at Maize Post Harvest and Storage (see Graph 2, 3). These raised viewership figures could indicate that viewers were particularly interested in these specific topics.

April – September 2019
Saturday's 14:00 – 14:30



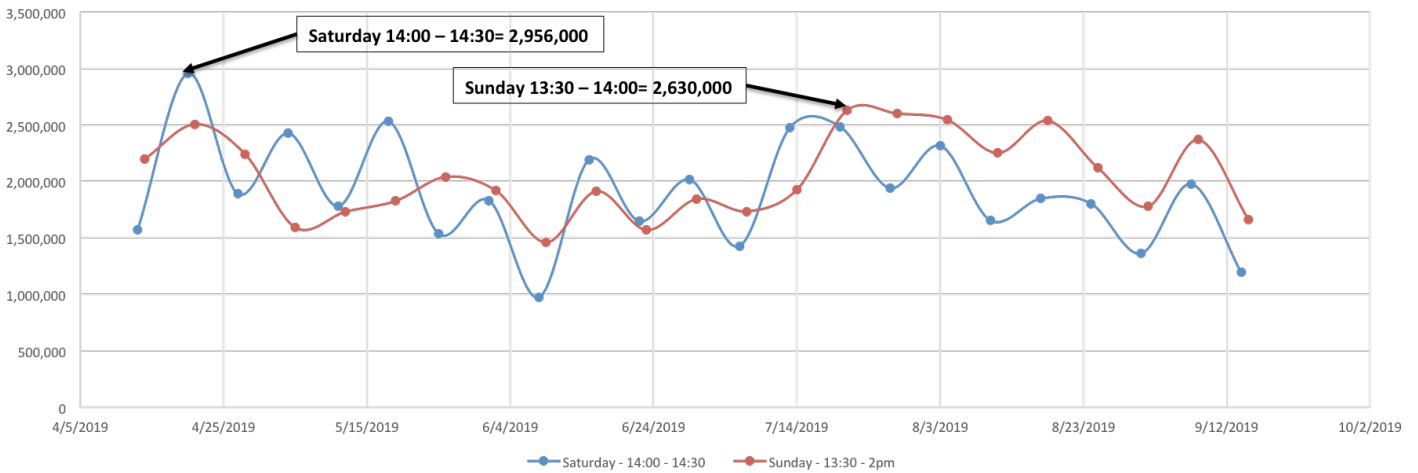
Graph 1.
Shamba Shape Up Series 9
Viewership Saturday, English Version

April – September 2019
 Sunday's 13:30 – 14:00



Graph 2.
 Shamba Shape Up Series 9
 Viewership Sunday, Kiswahili Version

April – September 2019
 Saturday and Sunday
 13:30 – 14:00 & 14:00 – 14:30



Graph 3.
 Shamba Shape Up Series 9
 Viewership Saturday & Sunday

SMS TRAFFIC ON ISHAMBA

Launched in March 2015, the iShamba service is a mobile-based farmer information service that disseminates relevant and timely agricultural information to farmers direct to their mobile phones. iShamba also has a call centre staffed with agricultural experts where farmers can SMS and/or call to get instant expert advice six days a week.

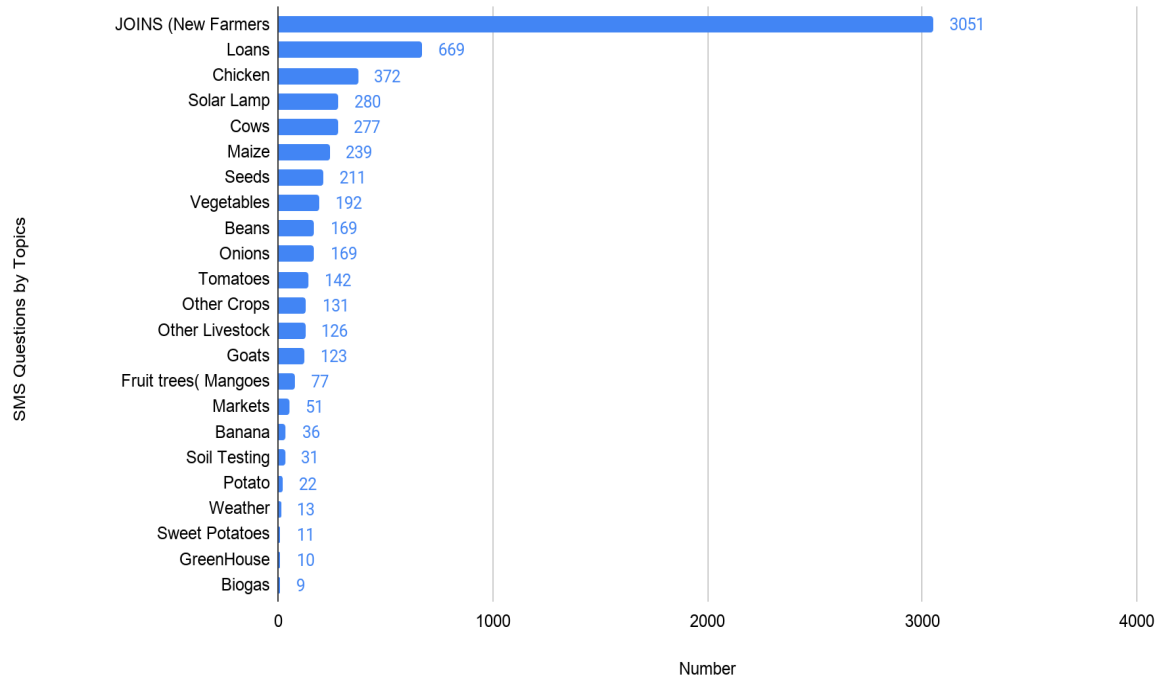
The service was launched as result of growing demand for further advisory information on Shamba Shape Up. The service is promoted on Shamba Shape Up, and viewers of the programme are encouraged to sign up and put any questions related to issues discussed on the programme to the call centre experts.

During the time Shamba Shape Up Series 9 was broadcast, the programme’s mobile back up system iShamba received a total of 6,411 SMS queries.

The SMS received were either a request to Join iShamba by sending the word JOIN, or a follow up question to one of the issues tackled on the programme.

The chart below shows the distribution of tagged SMS, i.e. SMS regarding a specific topic requested by the farmer.

iShamba Stats SMS Questions Received by Topics



SHAMBA SHAPE UP FACEBOOK

The Shamba Shape Up has one of the largest dedicated agricultural Facebook pages in the region with over 70,000 fans and followers.

This is a 12% increase from Series 6 of the program and signifies growing online impact. The page is predominantly used to engage with viewers on a more personalised level, share agricultural information and tips, hold competitions, and for peer-to-peer information exchange.

In terms of demographics, 78% of fans are Kenyan (53,556). 9,332 (13.3%) are Tanzanian, 1,709 (2.4%) are Ugandan, USA ranks fourth with 656 fans (0.9%) and United Arab Emirates fifth with 317 (0.5%).

Persons between the ages of 25-34 are in the cohort that follows the page most. There has been a steady growth amongst 35-44 year olds and an increase in the 45-54 years age bracket for both males and females (see Figure 1).

Similar to the last three year's trend, the highest Facebook traffic occurs over the weekdays. This is likely because this is when we engage most with users, by for example promoting programmes, posting information or answering questions.

The number of people who saw any of your posts at least once, grouped by age and gender. Aggregated demographic data is based on a number of factors, including age and gender information users provide in their Facebook profiles. This number is an estimate.

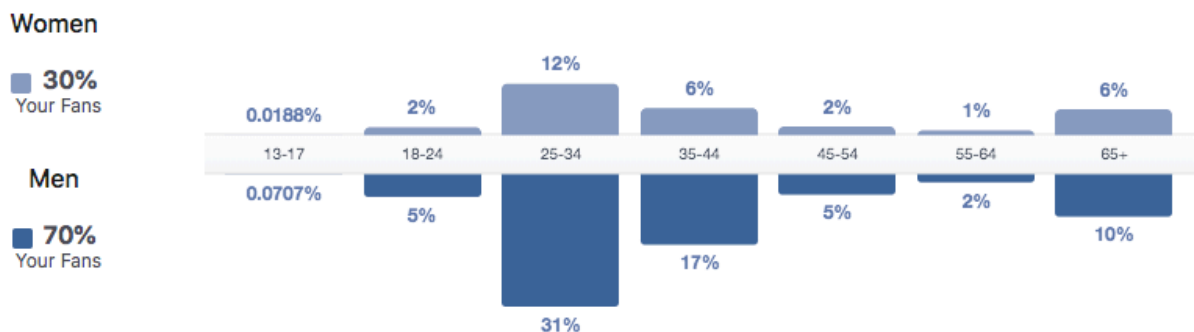


Figure 1: Gender and age demographics of Shamba Shape Up Facebook followers



II
RESEARCH
FINDINGS

II. RESEARCH FINDINGS

II.1. DEMOGRAPHIC OVERVIEW

As can be seen in the demographic overview of respondents, the post-broadcast mobile survey is split equally among female (50%) and male (50%) respondents. 40% of post-broadcast respondents fall in to the age bracket 34-45 years old, none were above 45 years of age. 40% of post-broadcast respondents fell in to the age bracket 25-34 years and 20% fell in the age bracket 18-24 years of age. This demographic is similar to that of the pre-broadcast survey.

Research shows that young farmers are less likely to make changes on their farm, as they typically do not own the land they farm on and need approval from parents or elders. Therefore, the results presented herein, are likely to shower lower rates of adopted changes in behaviour than if respondents were in older age brackets.

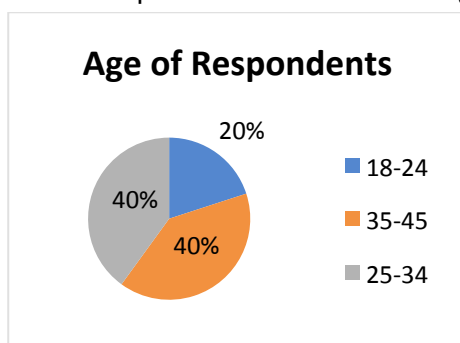


Figure 1: Age of Respondents

II.2. SOURCES OF AGRICULTURAL INFORMATION

Respondents are sourcing their agricultural information from 4 main sources, TV, Radio, (Agriculture) Shows and the Internet. Very few respondents get their information from Agro vets and Newspapers. TV viewership scored highest for Viewers in the post broadcast survey, followed distantly by internet sources. In the pre-broadcast survey, those that do not watch SSU source their information mainly from radio, while the post-broadcast survey shows that Non Viewers mainly source their information from TV. Shows also stand out for Non-viewers in the pre broadcast survey.

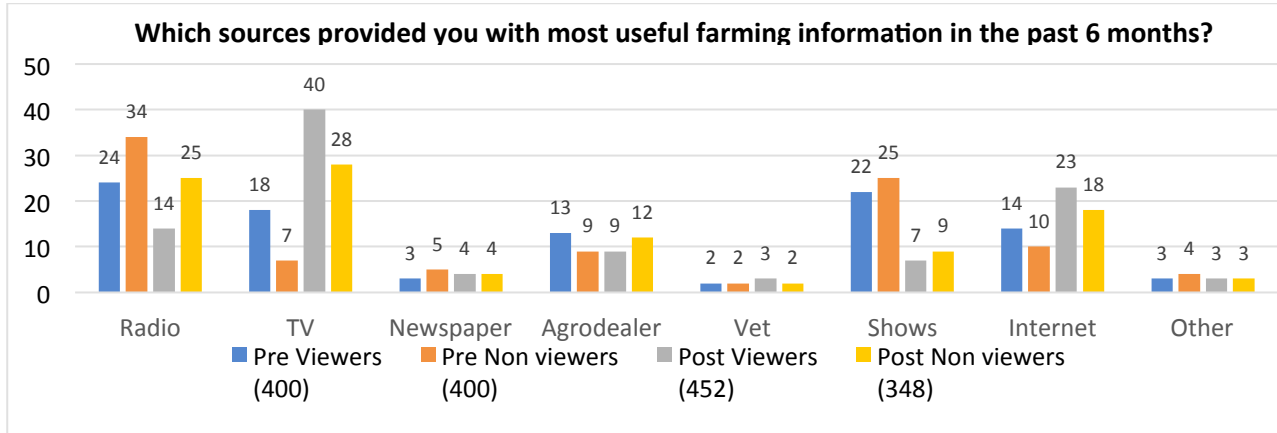


Figure 2: Sources of farming information

II.3 CROPS

II.3.1 Crops Grown

The range of crops grown are almost similar across the board. As shown in Figure 3 below, maize is the main crop grown by more than half of the viewers and non-viewers (60% average) with a slightly higher number reported amongst those who watched the show in the pre (63%) and post (60%) broadcast survey. Sukuma/Spinach follows distantly (17 % average), followed by potatoes (6% average) and beans (6 % average) meaning there is room to include more information in the upcoming Series of Shamba Shape Up on these other crops so as to promote a more diverse food production apart from maize.

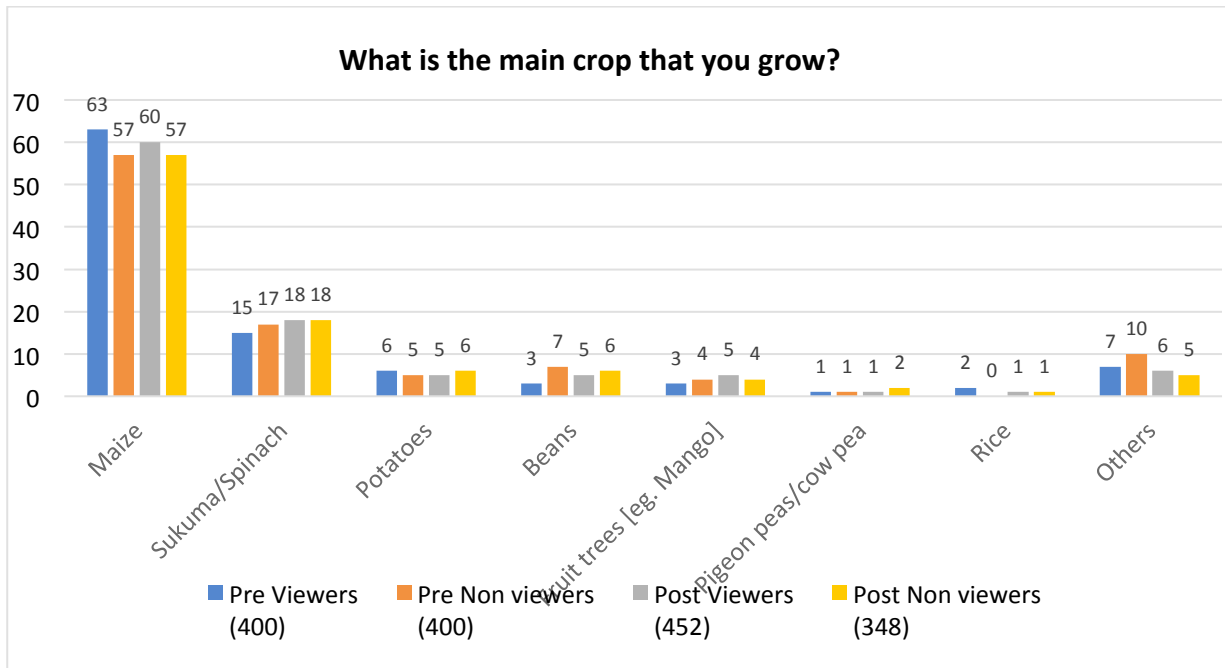


Figure 3: Main Crops Grown

II.3.2. Source of information for seed to use for your main crop

The main sources of information that viewers used in deciding which seed to use was “we always use it (47.5%), agro dealers (41%) followed closely by TV (34%).

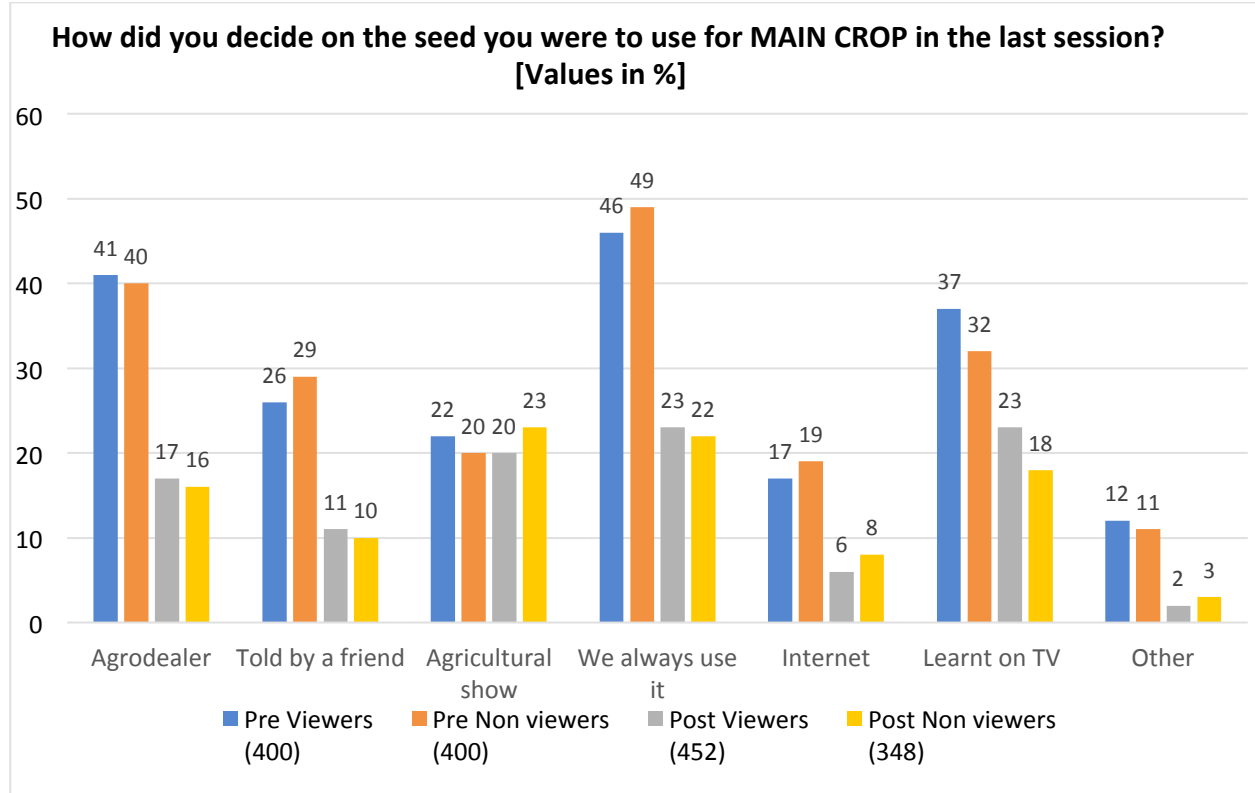


Figure 4: Decision on seed to use for main crop

II.4 MANGOES

II.4.1 Growing mango trees

At least 4 out of 10 of the viewers from the pre and post broadcast surveys grow mango trees on their farm with no significant difference between those who watched the show and those who did not watch the programme.

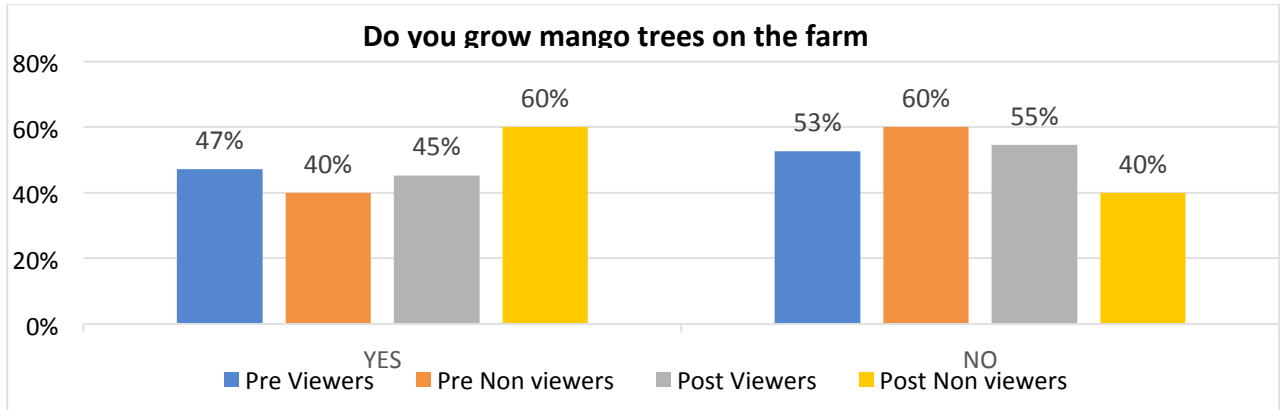


Figure 5: Growth of mango trees on the farm

II.4.2. Type of mango trees grown

There is an increase in the number of viewers (+6%) who grow grafted hybrid mangoes in the post broadcast compared to the pre broadcast viewers (See Figure 6 below). Majority (55%) of the pre broadcast viewers reported to grow only traditional mango which is the popular type grown across viewers and non-viewers. This figure went down to 46% of Viewers in the post-broadcast survey, indicating that viewers may be switching to growing grafted trees instead/additionally.

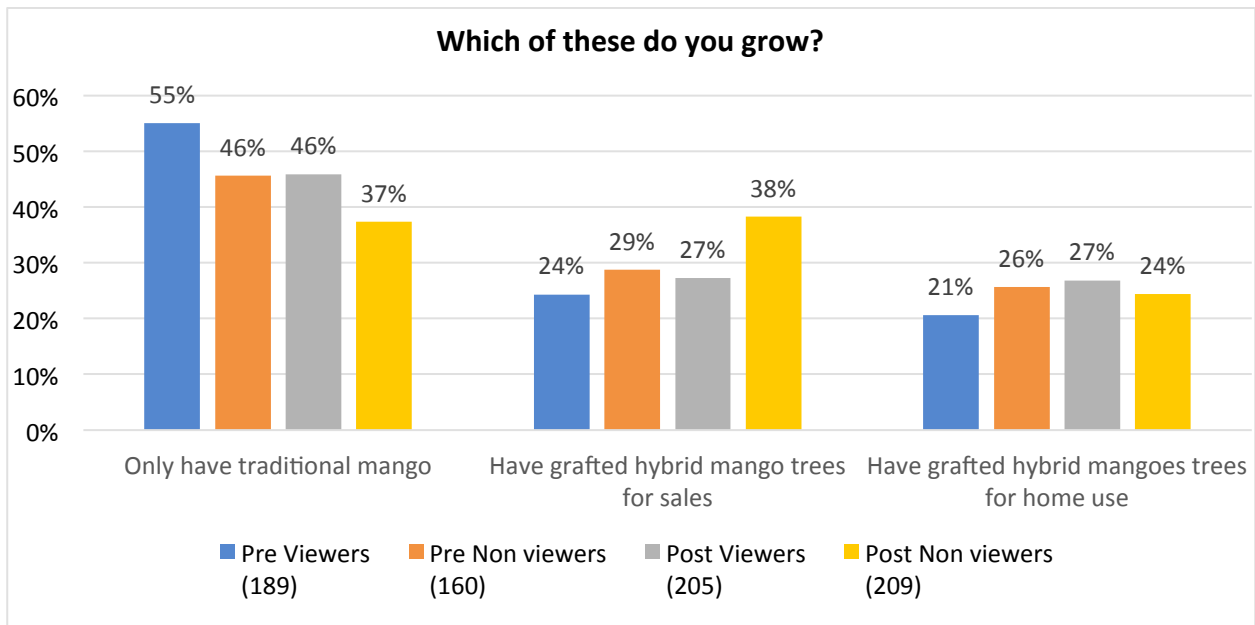


Figure 6: Type of mango trees grown

II.4.3 Mango varieties grown

As shown in Figure 7 below, Apple is the most popular mango variety grown by all groups with the highest mentions recorded amongst the post broadcast viewers (37%) which is a notable increase when compared to the pre broadcast (27%) viewers. Slightly higher proportions were observed for Tommy (11%) and Ngowe (8%) varieties amongst the post viewers compared to the pre viewers. A significant portion of respondents do not know the variety of mango that they grow. This should be factored in the series by educating farmers of the various mango varieties.

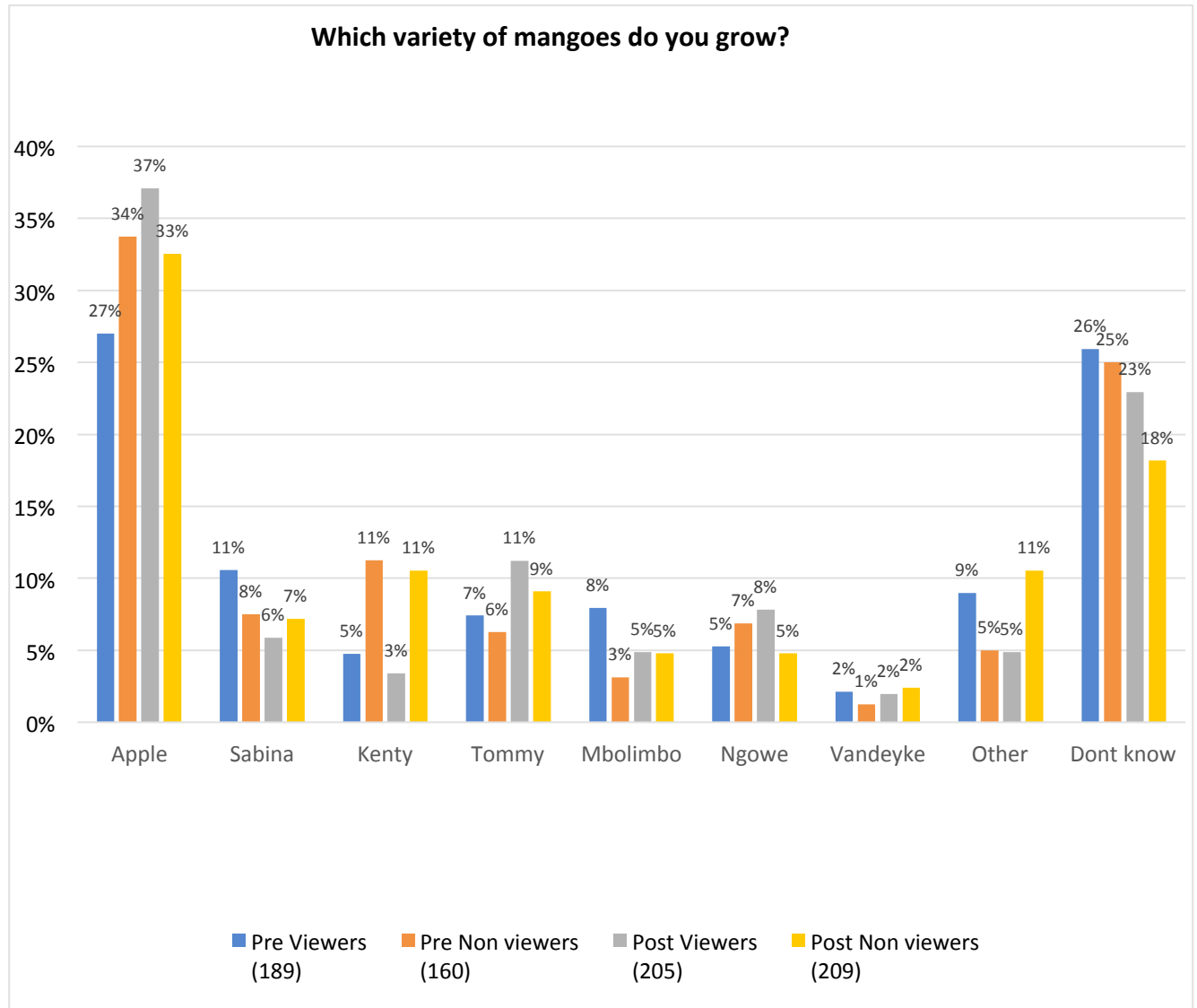


Figure 7: Variety of mango trees grown

II.4.4. Mango harvesting methods

Figure 7 below shows that there is a significant reduction in the number of viewers and non-viewers from the post broadcast survey who harvest their mangoes by letting them drop on the ground and picking them up. A significant decrease is observed in viewers from the pre-broadcast survey (29% reported letting their mango drop) to the post-broadcast survey (only 9% reported letting their mango drop). However, a similar decrease in this practice is observed for non-viewers of the programme (from 24% to 6%). This could indicate that there was an additional campaign promoting better harvesting practice that also reached this segment, albeit to a lesser extent.

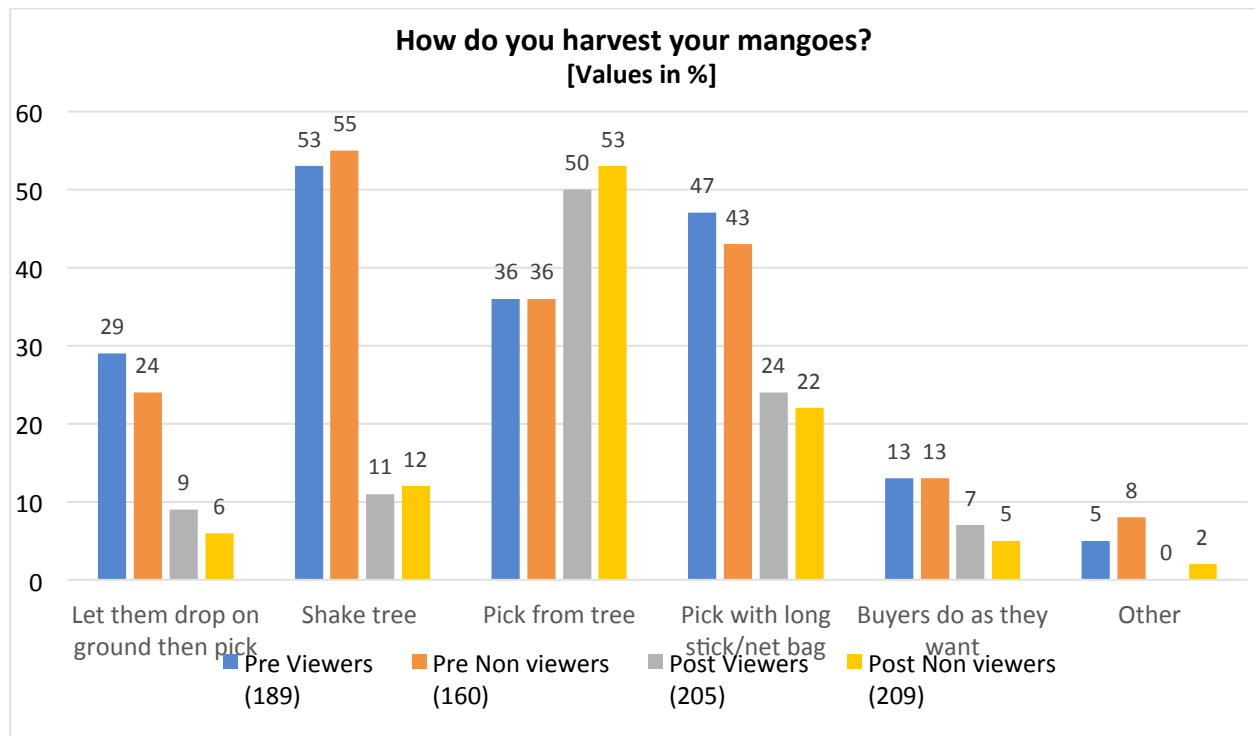


Figure 8: Ways used in harvesting mangoes

II.4.5. Actions taken before selling mangoes

In Figure 9 below, there has been an increase in Viewers packing their mangoes in crates for transport. While in the pre survey just over one third (37%) of viewers packed their mangoes in crates, following broadcast this figure had risen to nearly half (46%) of viewers which shows the effectiveness of the show in educating farmers on alternative methods of packaging post harvesting.

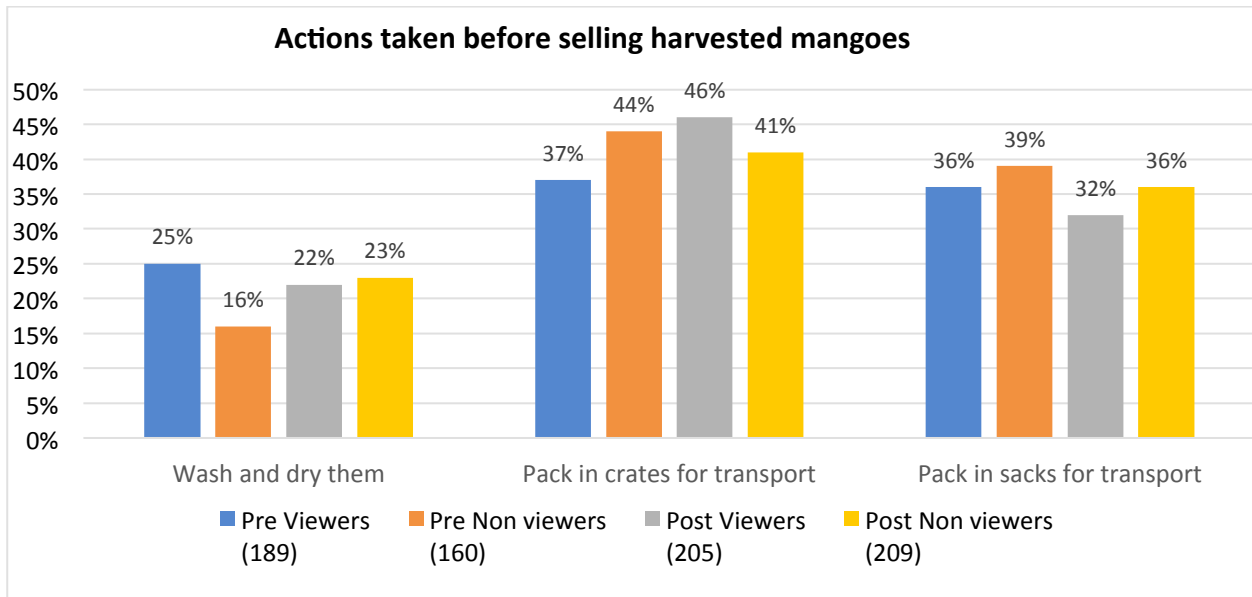


Figure 9: Actions taken before selling harvesting mangoes

II.4.6. Willingness of buyers to pay more for high quality crop

From Figure 10 below, 80% of viewers from the post broadcast survey reported that buyers are willing to pay more for a higher quality crop which is higher compared to the pre survey results by +10%. More emphasis needs to be placed on planting varieties that are of higher quality which in turn will increase the value of their sales.

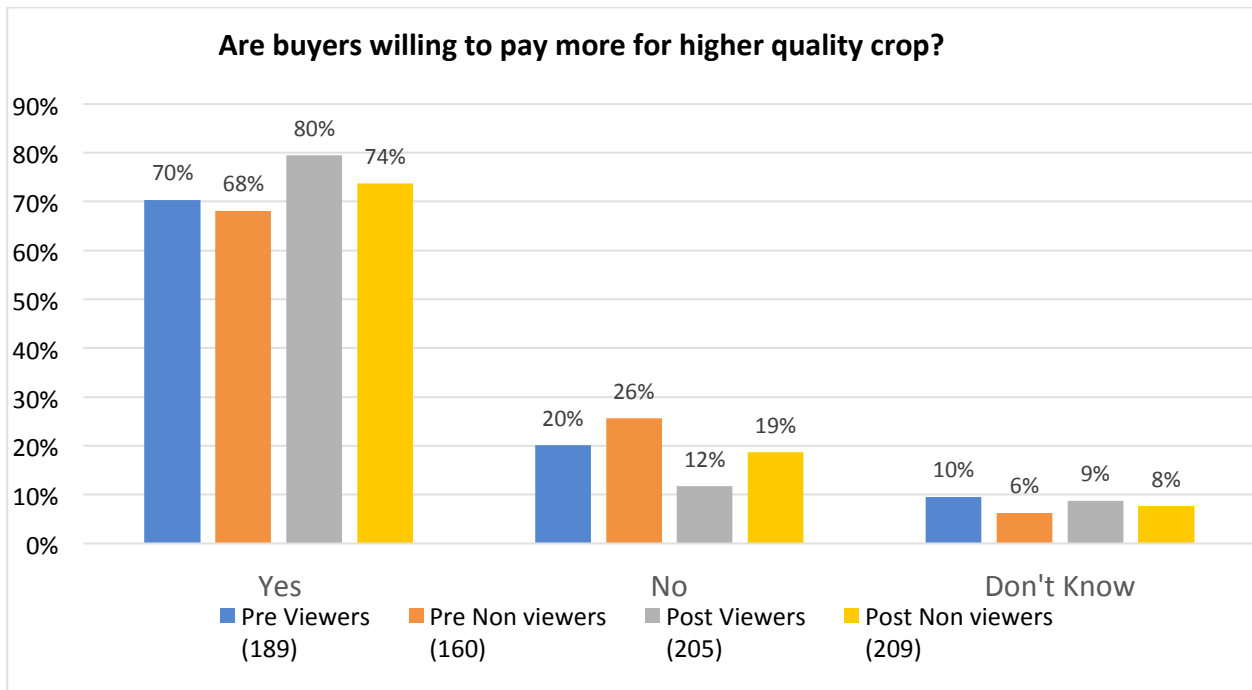


Figure 10: Mango buyers' willingness to pay more for higher quality crop

II.4.7. Difficulty in selling mangoes

Only 4 out of 10 of the viewers from the pre and post surveys reported having difficulty in selling their mangoes in the last season (see Figure 11 below). Non-viewers (47%) from the pre broadcast and (48%) from the post broadcast had the most difficulty in selling. A very small portion of 10% and below mentioned that they did not sell their mangoes.

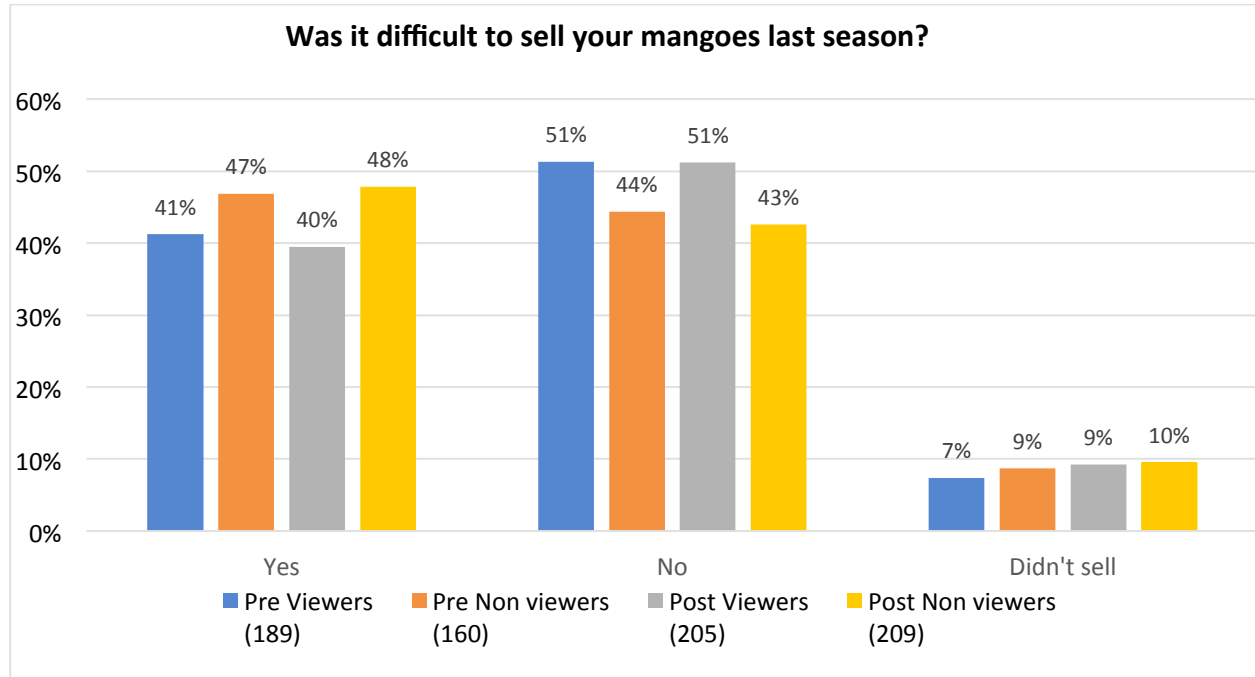


Figure 11: Difficulty in selling mangoes

II.4.8. Reasons for having difficulty in selling

When asked reasons for having difficulty in selling the harvested mangoes, as shown in Figure 12 below, having low prices was the main challenge with high mentions recorded amongst non-viewers (57%) from the post broadcast survey. Poor quality of mangoes followed with 31% of viewers from the post broadcast survey.

Shamba Shape Up could educate famers on how to ensure quality harvest of mangoes in the upcoming Series, which will lead to an increase in price as well as sales.

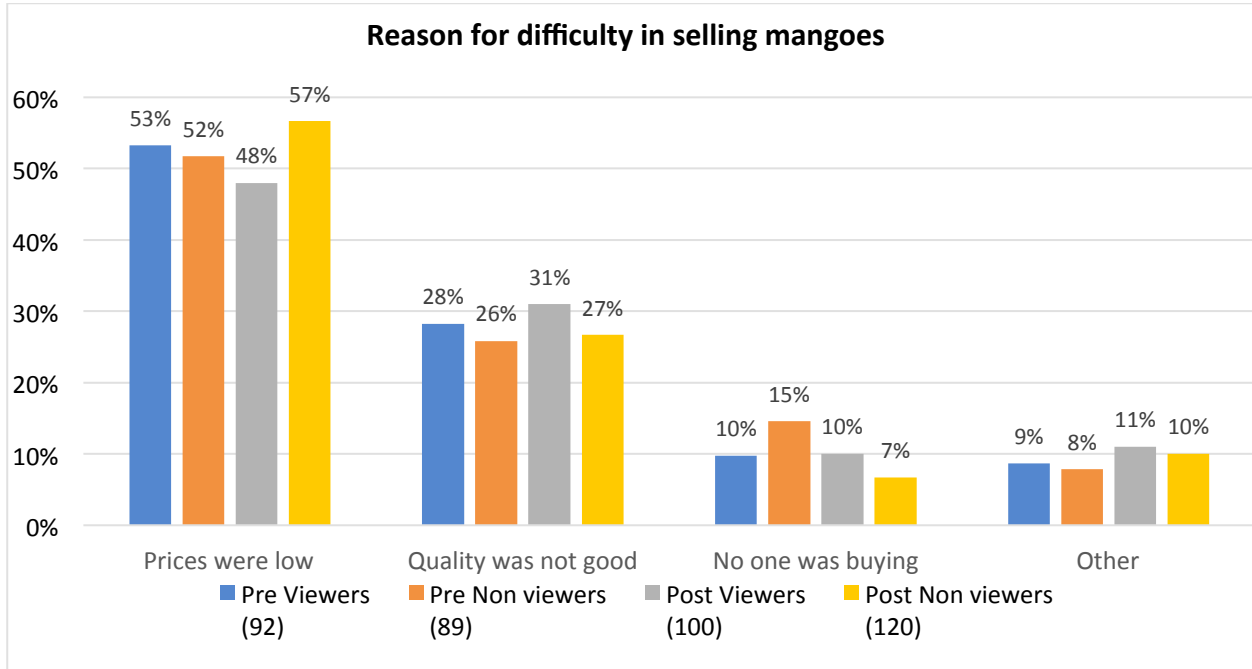


Figure 12: Reasons for difficulty in selling mangoes

II. 5 MAIZE

II.5.1 Maize Grown

From Figure 12 below, there is a slight increase in viewers from the post survey (89%) who reported to grow maize last season compared to the pre survey (85%). Continue airing topics covering maize which is the most popular crop grown by both viewers and non-viewers as earlier established.

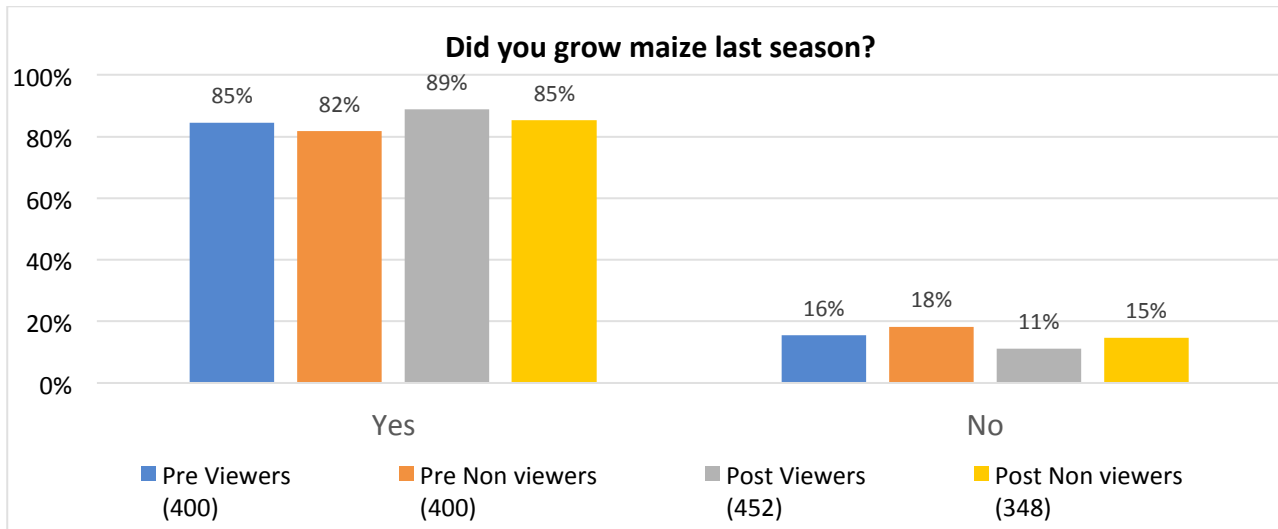


Figure 13: Respondents that grew maize last season

II.5.2. Maize Harvest

Harvest in over 25 bags of 90kg increased in the post broadcast survey amongst the viewers of the show by (+8%) when compared to the viewers of the pre broadcast survey (see Figure 14 below). This is also evident in those that harvested between 13-25 90kg bags where (24%) viewers from the post survey compared to (19%) viewers from the pre survey mentioning a large number of 90kg bags harvested. Post broadcast results indicate that the show was effective in showing ways of ensuring a good harvest without having crops infected by pests and diseases by ensuring use of pesticides which should be emphasized in future episodes.

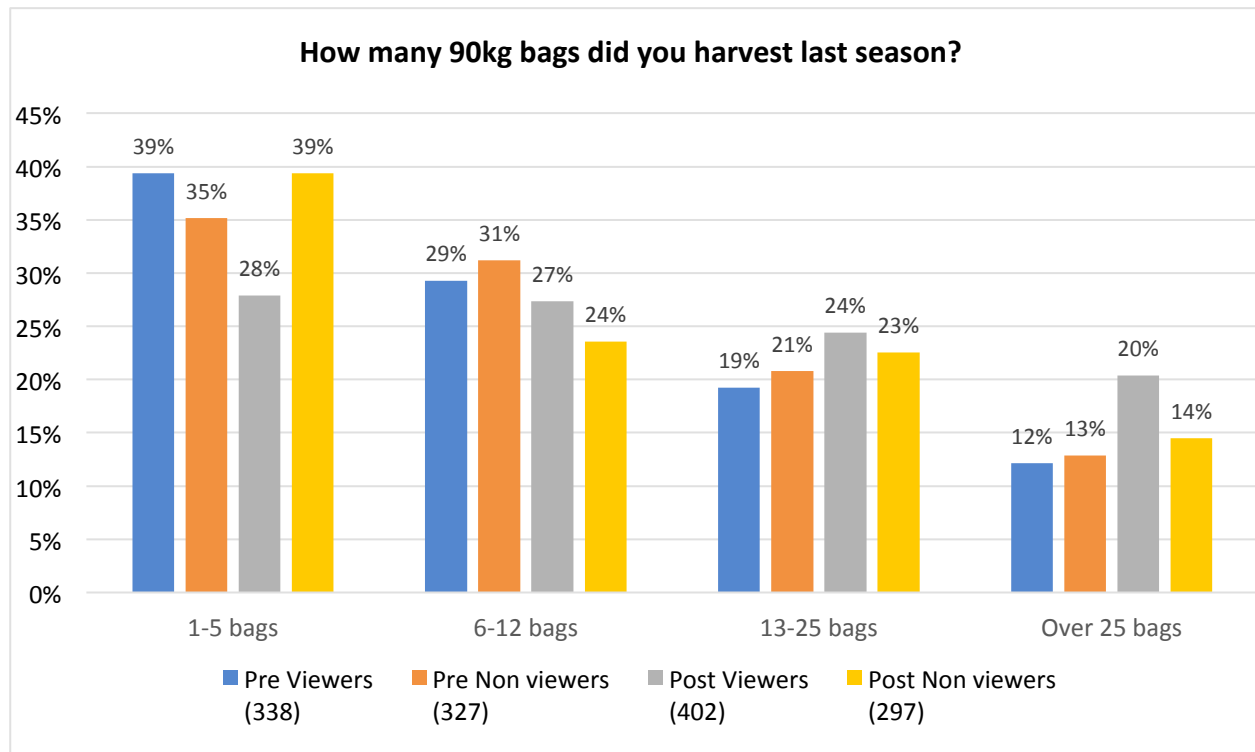


Figure 14: Number of 90 kg maize bags harvested

II.5.3. Bags used for human consumption

Figure 15 shows the number of bags used for human consumption due to spoilage. The post survey results indicate that there has been a significant reduction in the number of bags used for human consumption due to spoilage with 22% of viewers mentioning 3-5 bags in the post survey compared to 46% viewers who mentioned 3-5 bags in the pre survey. Mostly 1-2 bags are now affected from the post survey which is better compared to the low number of those reporting over 10 bags being used for human consumption by a (-7%) drop from the viewers from the post survey compared to the viewers from the pre survey. There is still need to educate farmers on proper storage of maize after harvesting so as to ensure more bags are sold.

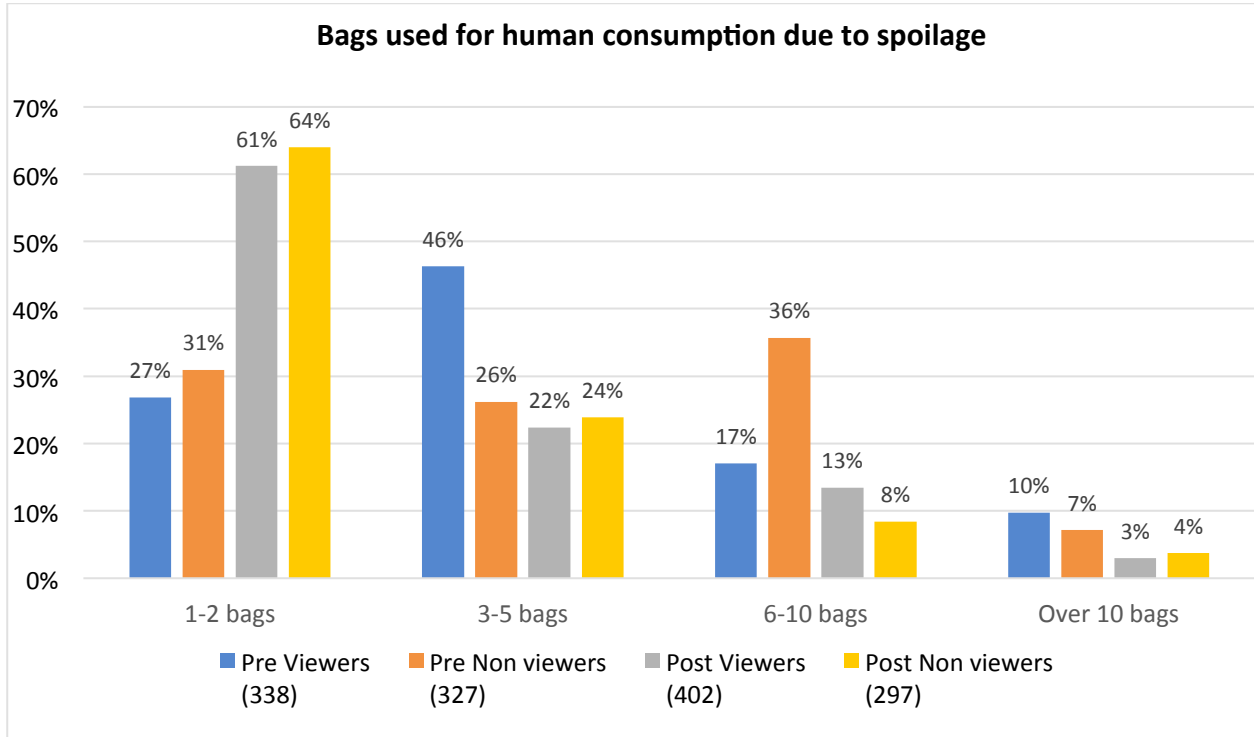


Figure 15: Number of maize bags used for human consumption due to spoilage

II.5.4. Maize seed varieties grown

When asked which varieties of maize seeds they grow, the majority of respondents pointed at improved/certified seeds variety that come in bags as the most popular seed varieties grown (see Figure 16). There was a 4% increase between pre and post survey Viewers who said they used improved/certified seeds, while there was no change between pre and post non-viewers. Traditional varieties and reused/recycled seeds from previous harvest are rarely used with a drop observed from the viewers of the post survey (9%) compared to the viewers of the pre survey (14%) who mentioned using the traditional variety seeds.

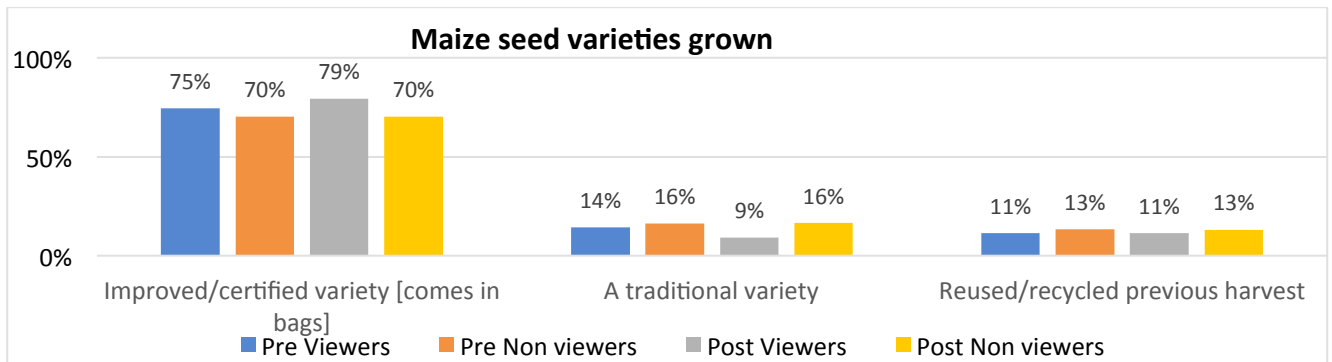


Figure 16: Maize seeds varieties grown

II.5.5. Maize seed manufacturers

Looking at most known seed manufacturers that produce high quality seeds, Kenya Seed Company had the highest ranking by both viewers and non-viewers (see Figure 17)., with slightly higher mentions amongst the viewers (average 50%) from the pre broadcast survey than non viewers (average 42.5%). This indicates that persons watching Shamba Shape Up may have more access to quality inputs such as seed.

Pioneer follows distantly by about ¼ of the respondents across viewers and non-viewers. Simlaw, East Africa Seed, Pana and Western seed are the least popular brands.

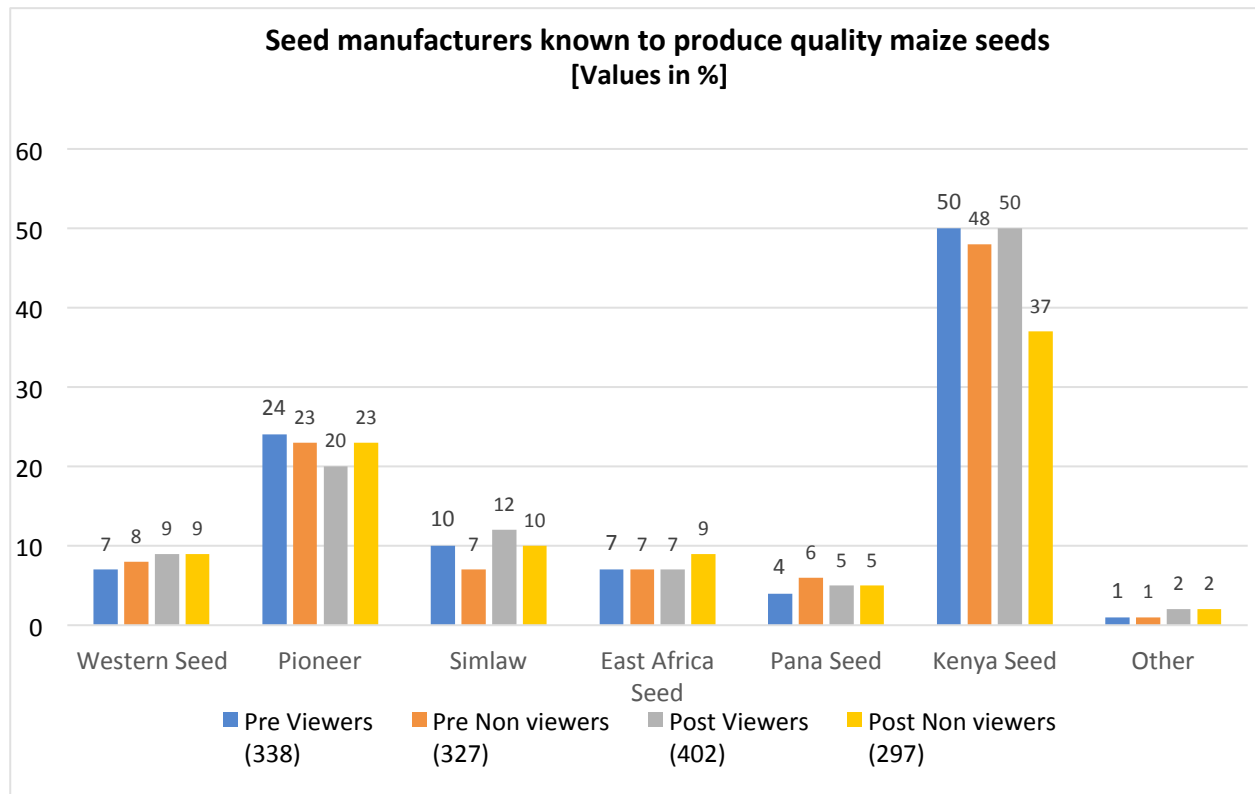


Figure 17: Seed manufacturers known to produce quality maize seeds

II.5.6. Process of drying maize after harvesting

Looking at maize drying practices, removal of maize (shelling) and spreading it on the tandarua was the most popular method of drying maize after harvesting. This was named by more than half of the sampled respondents. Viewers from the pre broadcast (62%) and viewers from the post broadcast (63%) had higher mentions compared to non-viewers (58 % and 57 % respectively). Again, this finding indicates that Shamba Shape Up viewers are generally more educated on harvesting practices than non-viewers.

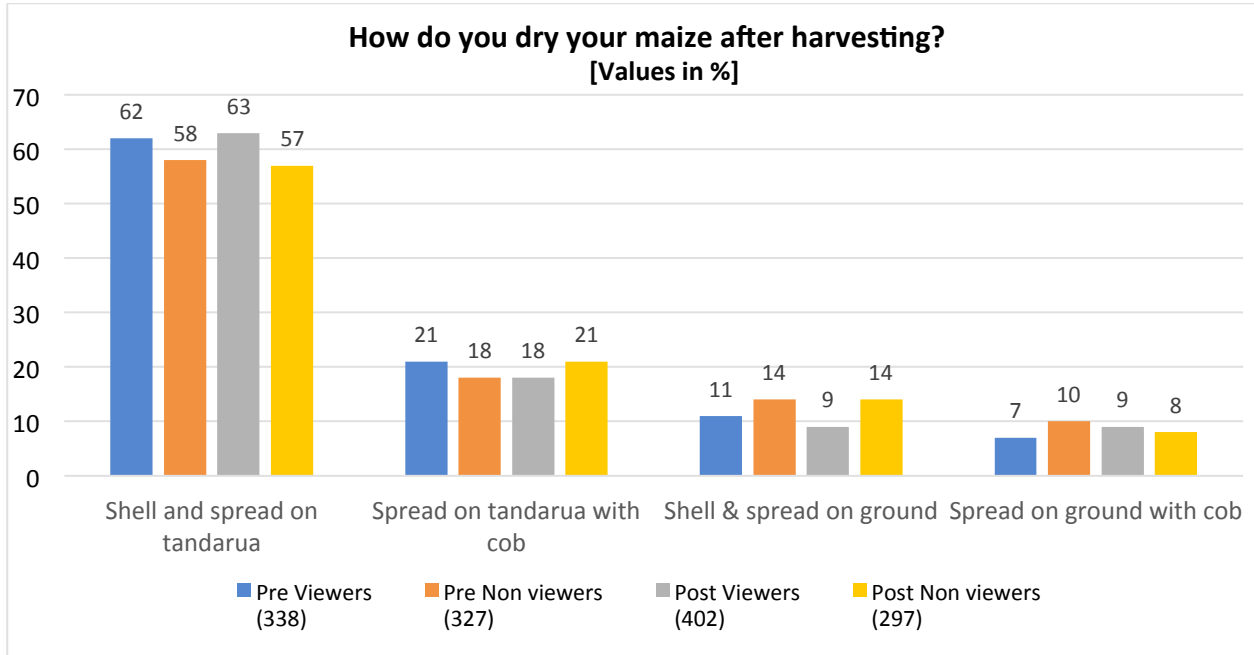


Figure 18: Ways of drying maize post harvesting

II.5.7. Ways of detecting dryness of maize

The most popular method of knowing whether maize is dry is by biting it with 43% viewers from the pre broadcast survey and 44% of non-viewers from the pre broadcast survey mentioning it as shown in Figure 19 below. This method however decreased for viewers between pre broadcast (43% reported biting maize) and the post broadcast survey (38% reported biting the maize). There were similar readings for viewers who mentioned that they “just know it” from the pre and post survey. There was a notable increase in viewers between pre and post survey who mentioned using of a bottle and salt to detect dryness of maize, as promoted on the show. Indeed 17% of viewers reported using this method, compared to 6% of viewers in the pre survey. If the show demonstrated this and other non-traditional methods on post harvest handling, it could change behaviour of more farmers away from traditional methods, to more precise and adapted methods.

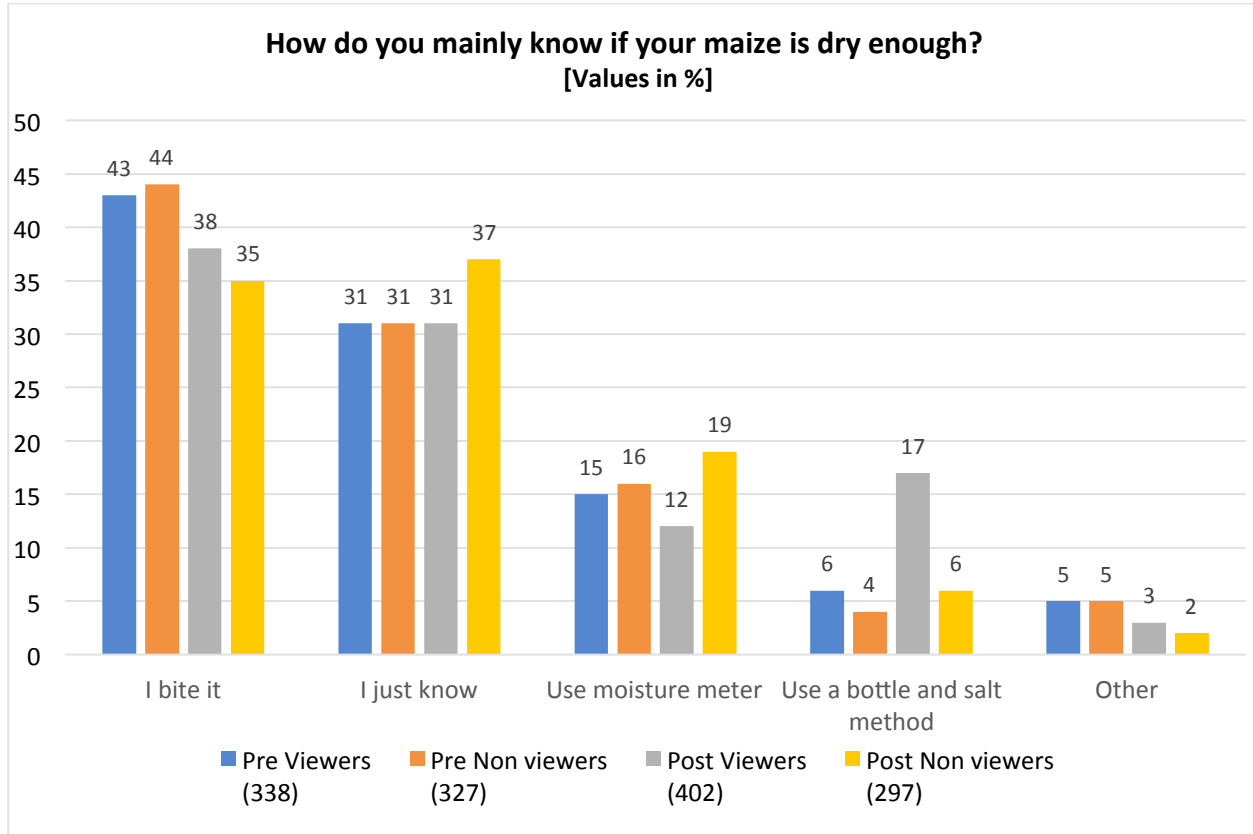


Figure 19: Process of detecting dryness of maize

II.5.8. Maize Storage

When asked the type of bags used for storing their maize as shown in Figure 20 below, usage of nylon sacks with no plastic liner and nylon sacks with two plastic liners stood out as the most popular method. There was a notable increase (+14%) in viewers that adapted the use of nylon sacks with two plastic liners in the post broadcast survey compared to the viewers from the pre survey. There was a decline in the use of sisal sacks by viewers from the post survey (18%) compared to viewers from the pre survey (28%), which indicates that viewers changed their storage practices away from sisal sacks, towards nylon sacks with plastic liners. Better storage methods have been adapted post viewership of the show suggesting that advisory provided by SSU around this issue was well received and could benefit more farmers if emphasized in future episodes. This could help reduce the number of harvested maize that gets spoilt.

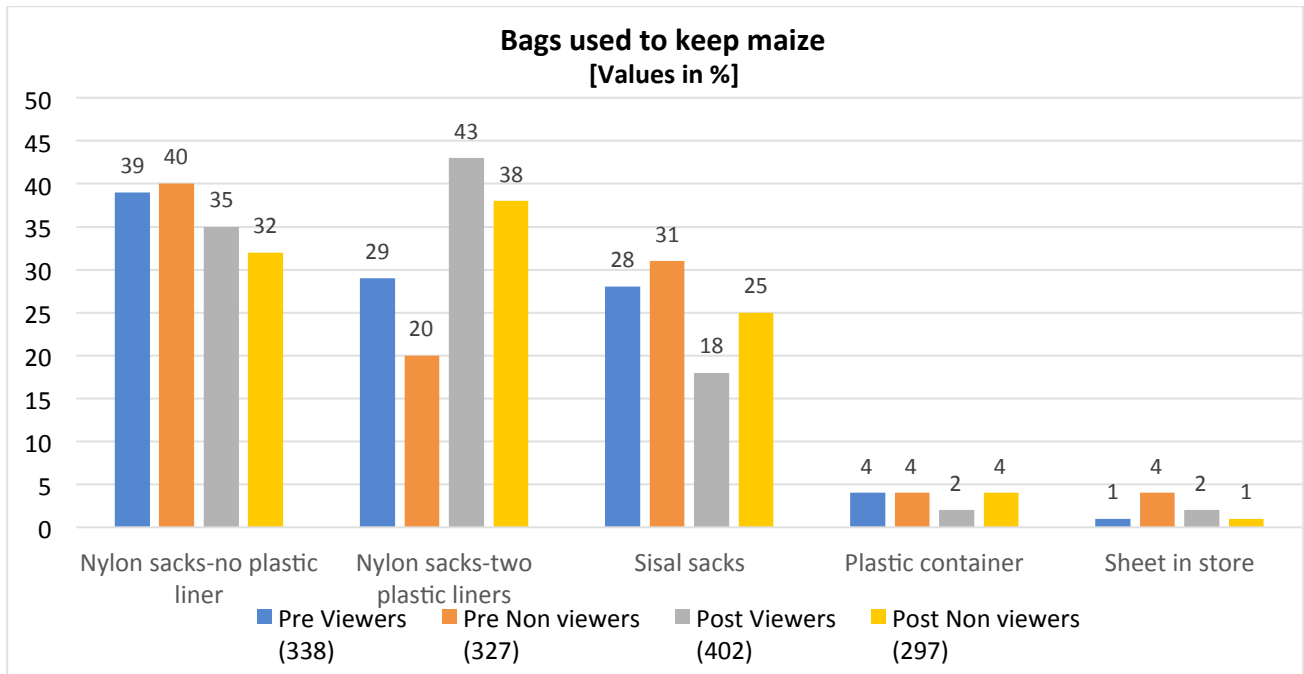


Figure 20: Bags used to keep maize

II.5.9. Behaviour around selling maize

Keeping and selling maize when prices go up is a wide spread practice as observed by more than 60% of viewers and non-viewers who are adapting this method (see Figure 21 below). Shamba Shape Up should continue promoting storage of maize for profit as this enables farmers to gain more returns after sale. Modern methods of storage should also be emphasized so as to reduce the number of bags that end up spoilt as earlier established so as to reduce losses.

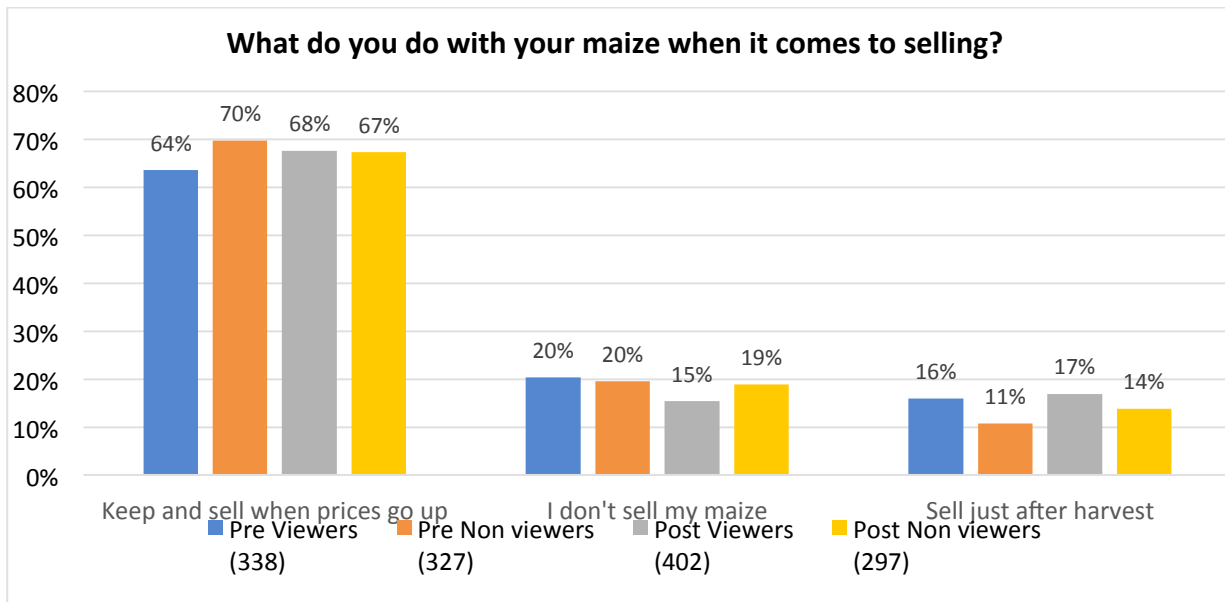


Figure 21: Actions on maize when selling

II. 6 PESTICIDES

II.6.1 Companies associated with selling pesticides

At least half of the viewers associate Syngenta Company for selling pesticides as shown in Figure 22. Osho Chemical follows next with an average of 30% of respondents associating the company with pesticides. There was a notable increase in viewers who associated pesticides with Osho chemicals, with 19% of viewers recognizing the brand pre broadcast and 28% of viewers recognizing the brand in the post survey. This shows an increase of nearly 10%, which could be attributed to the programme. At the same time, there was a 4% decrease of non-viewers who associated the brand with pesticides.

This not only indicates that Shamba Shape Up viewers already associate Osho chemicals with pesticides (an association likely built over years), but that the show is still able to raise awareness of the brand amongst its viewers.

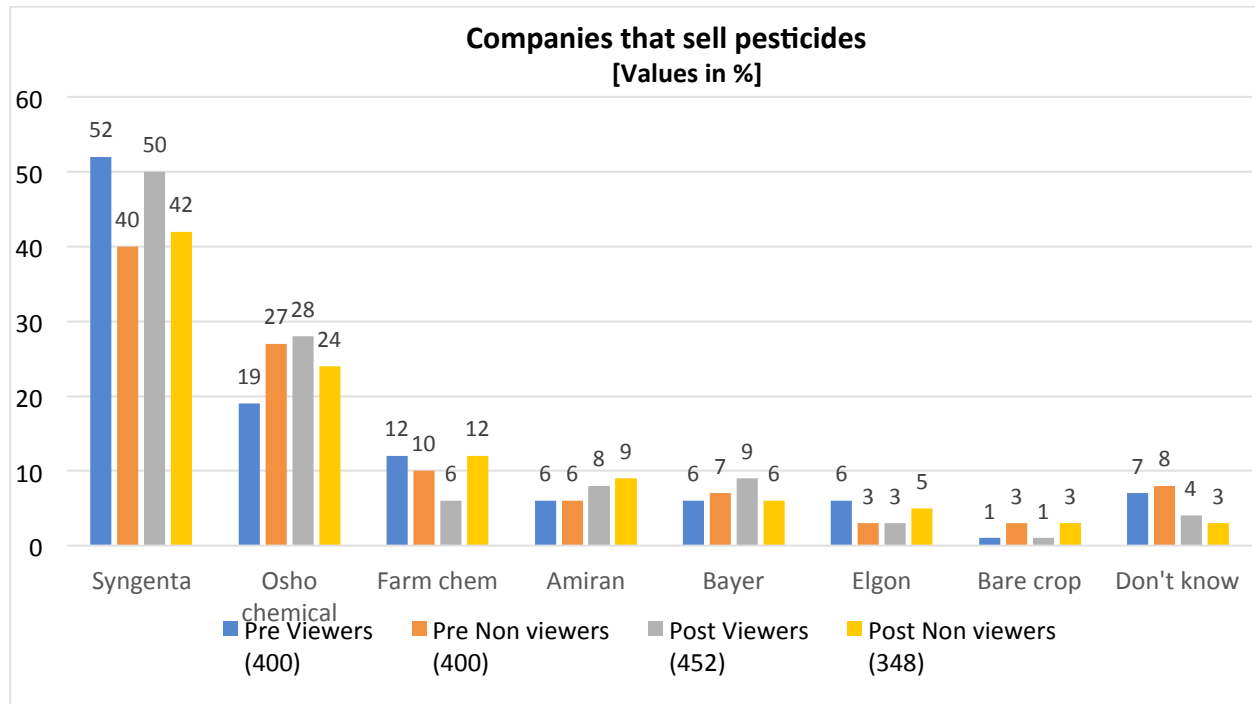


Figure 22: Companies associated with selling pesticides

II.6.2. Ways of dealing with pests/diseases

As shown in Figure 23 below, pesticide usage was the most popular method of dealing with diseases and pests, as indicated by more than 70% of respondents across all groups. Less than 20% mentioned use of traditional methods. There was a slight decrease (-6%) amongst viewers from the post survey compared to viewers from the pre survey that mentioned usage of traditional remedy like ash. This is a good indication that those that viewed the show were able to see the importance of pesticide usage and possibly change their behaviour based on this.

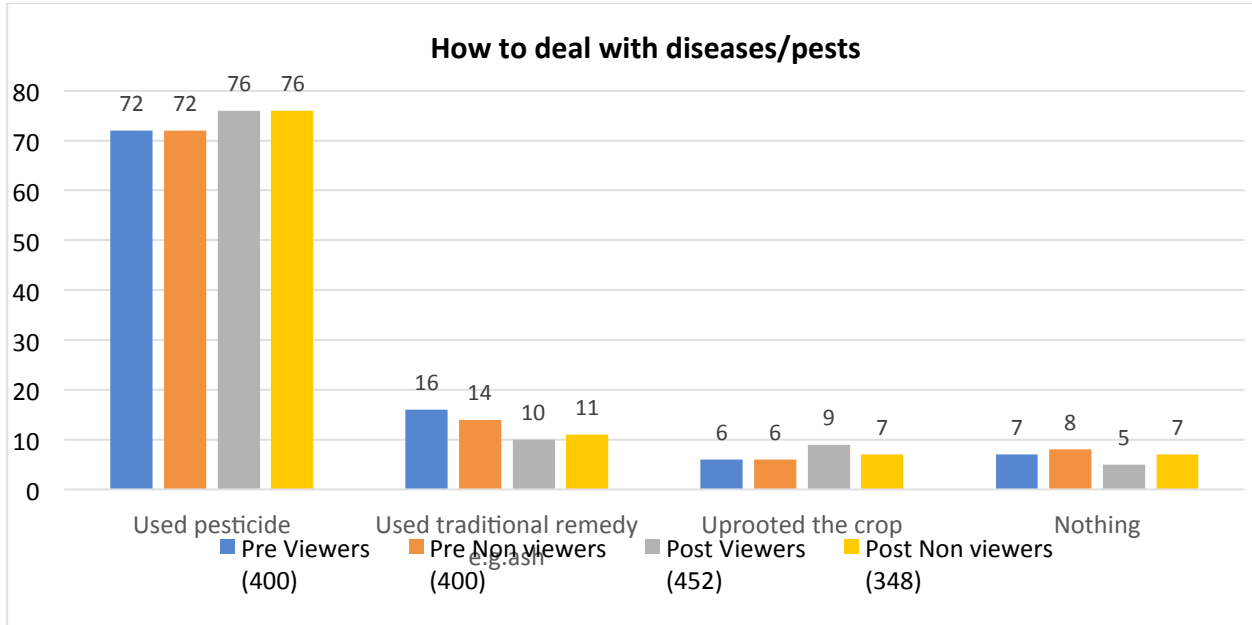


Figure 23: How to deal with diseases/pests

II. 7 DAIRY

II.7.1. Dairy kept for milk

More than 60% of the viewers and non-viewers from the pre and post survey said that they kept cows for milk. The highest number of dairy farmers recorded were viewers (68%) in the post broadcast survey, which was slightly higher compared to the viewers (63%) from the pre survey (see Figure 24). Both figures were similar for non-viewers however.

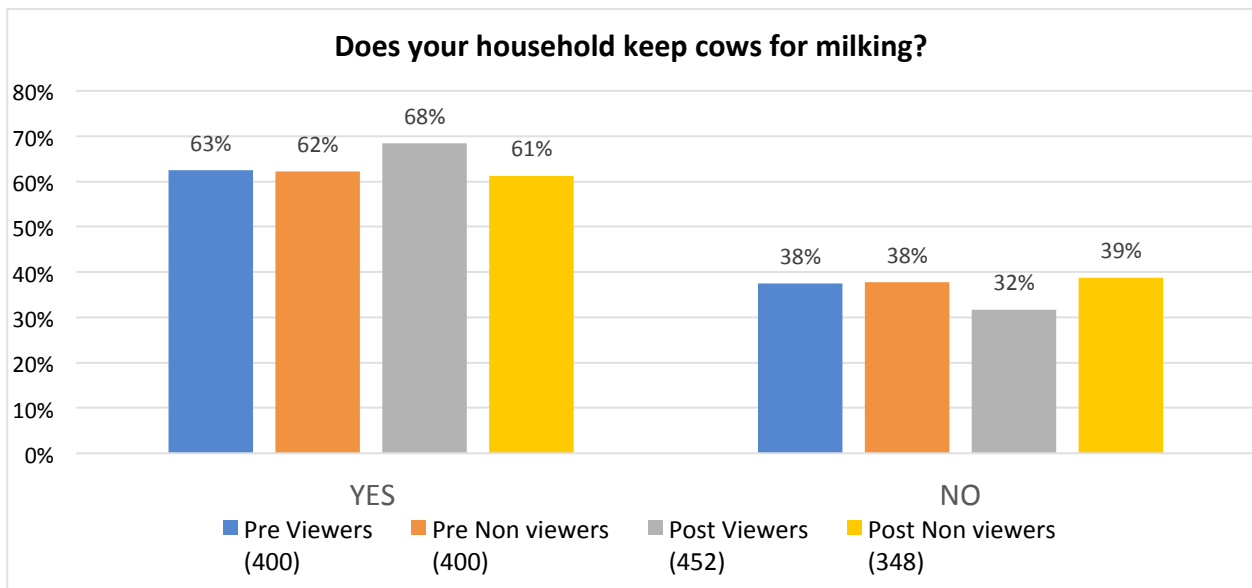


Figure 24: Household that keeps cows for milking

II.7.2. Number of adult cows owned

When asked how many adult cows they currently have, more than 80% of all the sampled respondents reported having 1-3 adult cows (see Figure 25).

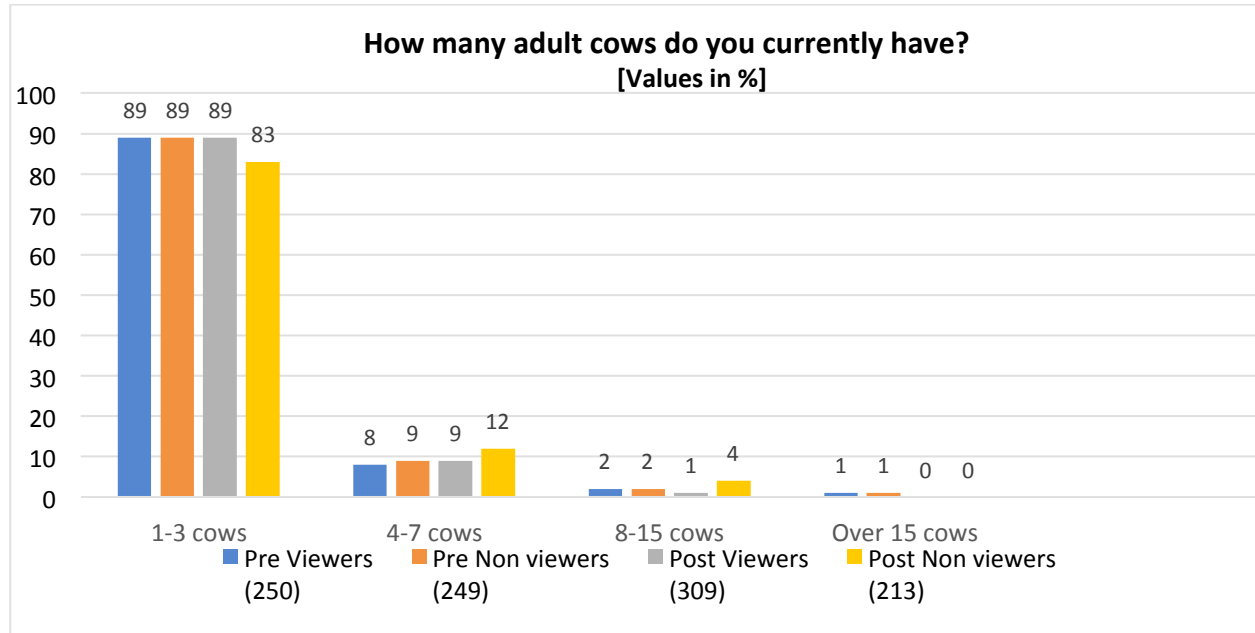


Figure 25: Adult cows currently kept

II.7.3. Number of litres of milk per day

When asked about the number of litres of milk that they get in day, there was an almost similar representation between viewers and non-viewers, with the most common response for both being between 1-5 Litres of milk per day. A total of only 5% of viewers and non-viewers managed to get over 25 litres of milk per day. These figures indicate that there is huge room for improvement regarding milking of cows, and could provide opportunity for dairy feed and supplements that support increase milk yields amongst cows.

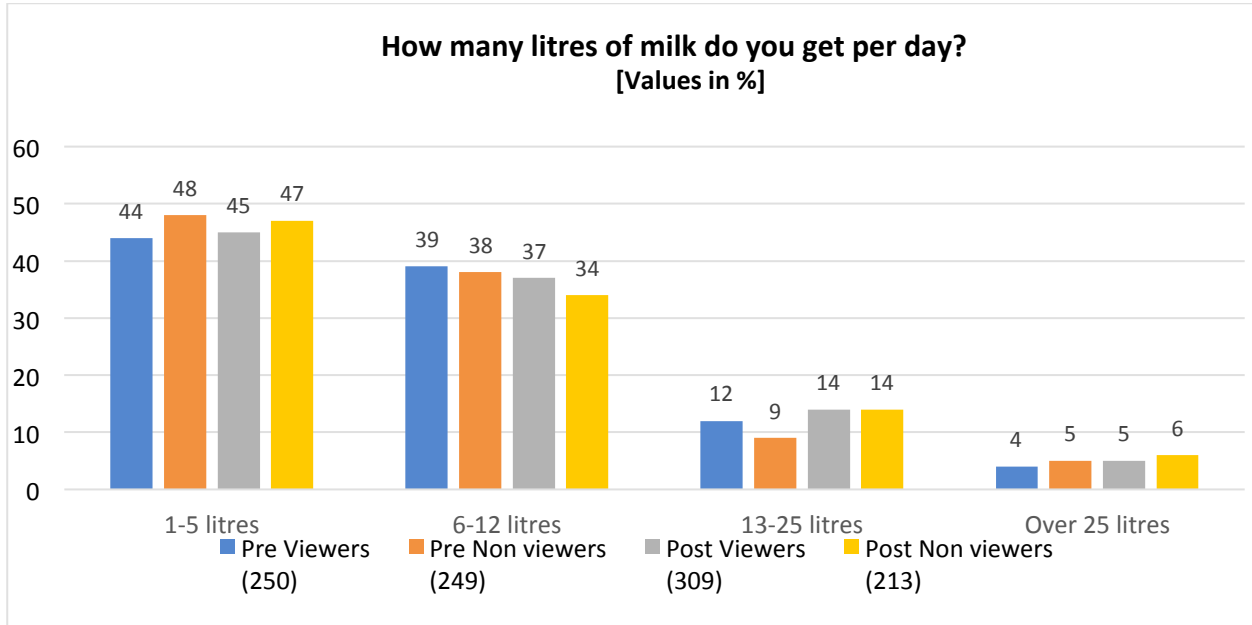


Figure 26: Litres of milk per day

11.7.4. Cow Feed

Napier or hay is the most popular feed for cows especially amongst the viewers (65%) for pre survey and (63%) viewers from the post survey (see Figure 27), which is higher than for non-viewers: 60% of non-viewers and 58% of viewers reported feeding their cows Napier or hay respectively. Vitamins and Protein Supplements are also used in small proportions.

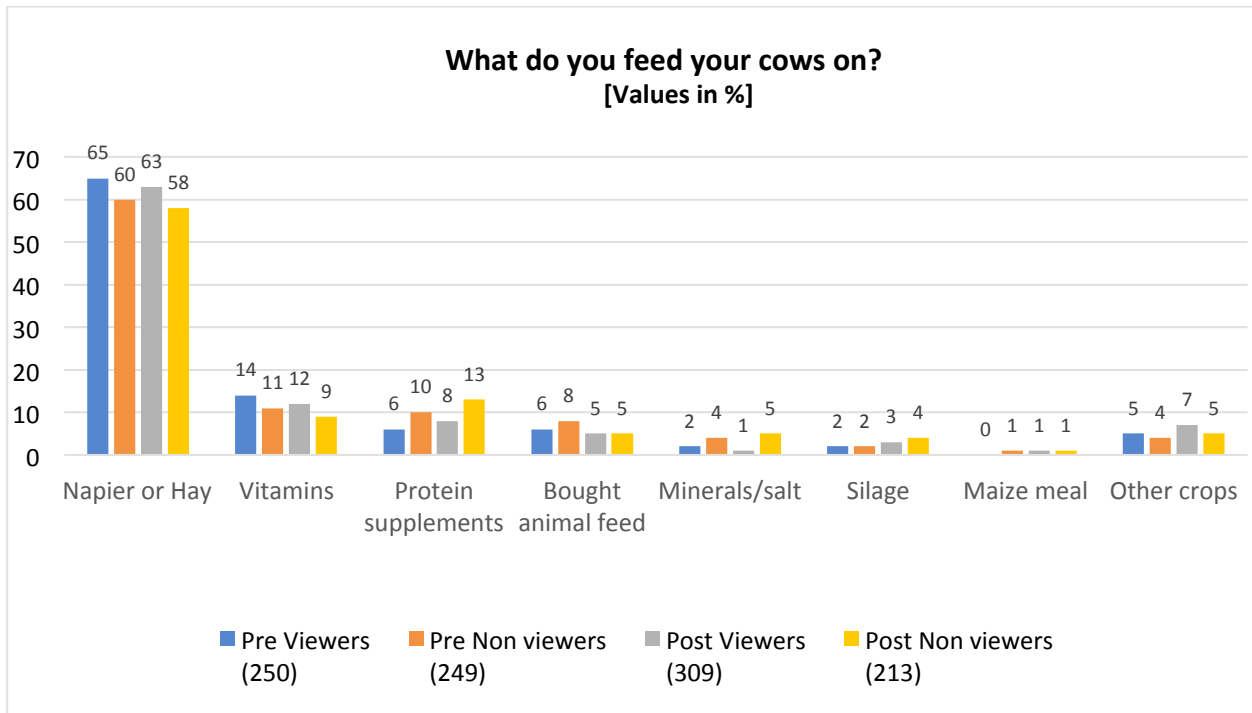


Figure 27: Cow Feed

II.7.5. Supplements

Looking at which supplements respondent's give to their cows, Dairy Meal had the highest ranking followed closely by Maclik Super pre-broadcast, but Maclik Super overtook Dairy meal post-broadcast for Shamba Shape Up viewers (see Figure 28). . There was a notable increase (7 %) amongst viewers who started using Maclik Super between pre and post broadcast. This figure rose from 34% to 41% for viewers between the two study waves. At the same time, there was a drop in usage of Dairy Meal amongst the viewers between the two survey's, with 43% of viewers using dairy meal pre-broadcast and only 34% of viewers using this brand post broadcast. This indicates that viewers of Shamba Shape Up may have transferred from using Dairy Meal to using Maclik Super after seeing it promoted on the programme.

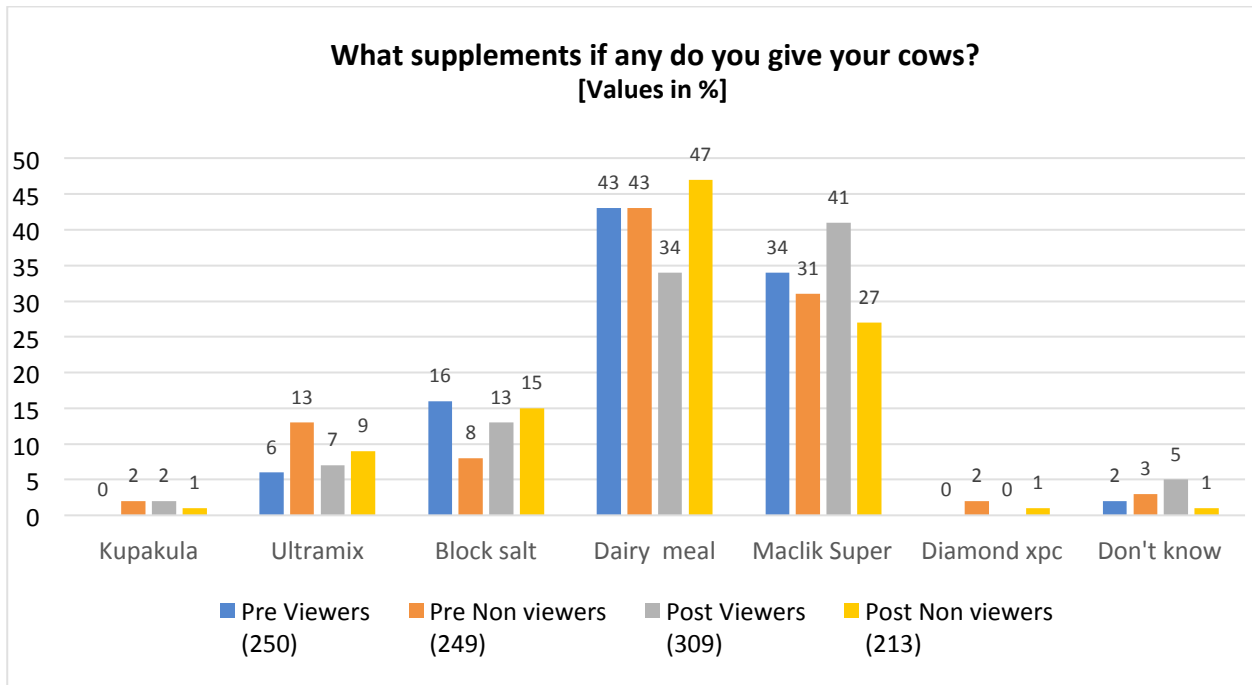


Figure 28: Cow supplements given

II.7.6. Frequency of spray/dipping cows

As shown in Figure 29 below, cows are sprayed or dipped mostly on a weekly basis. There was a significant increase in the number of the viewers that sprayed their cows on a weekly basis from the pre broadcast to post broadcast survey's (44% to 56%), survey which indicates that the show was effective in educating farmers on this.

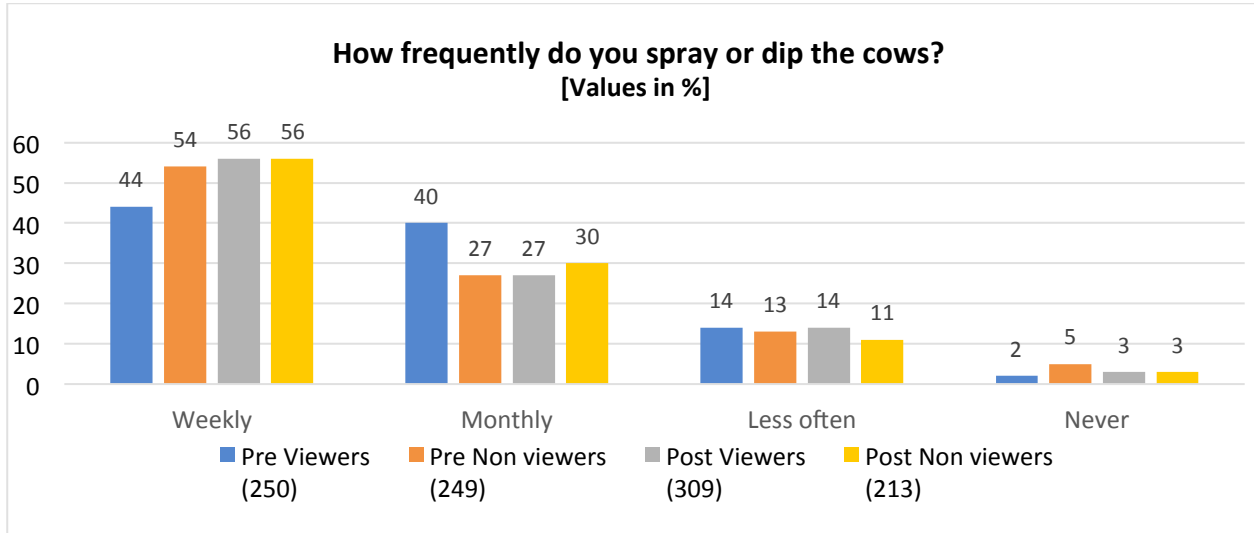


Figure 29: Frequency of spraying/dipping cows

II.7.7. Companies associated with spray/dip for cows

Coopers is the most popular company known for manufacturing of spray/dip with a high popularity amongst viewers from the post survey (52%) compared to the viewers from the pre survey (47%) as shown in Figure 30 below. Coopers is clearly recognized by viewers of Shamba Shape Up, which could be an awareness created over years. Norbrook is the second most popular company with slightly higher mentions by viewers from the post survey (30%) compared to the viewers from the pre survey (26%). There is still room to increase the level of awareness of least popular brands that also manufacture pesticides.

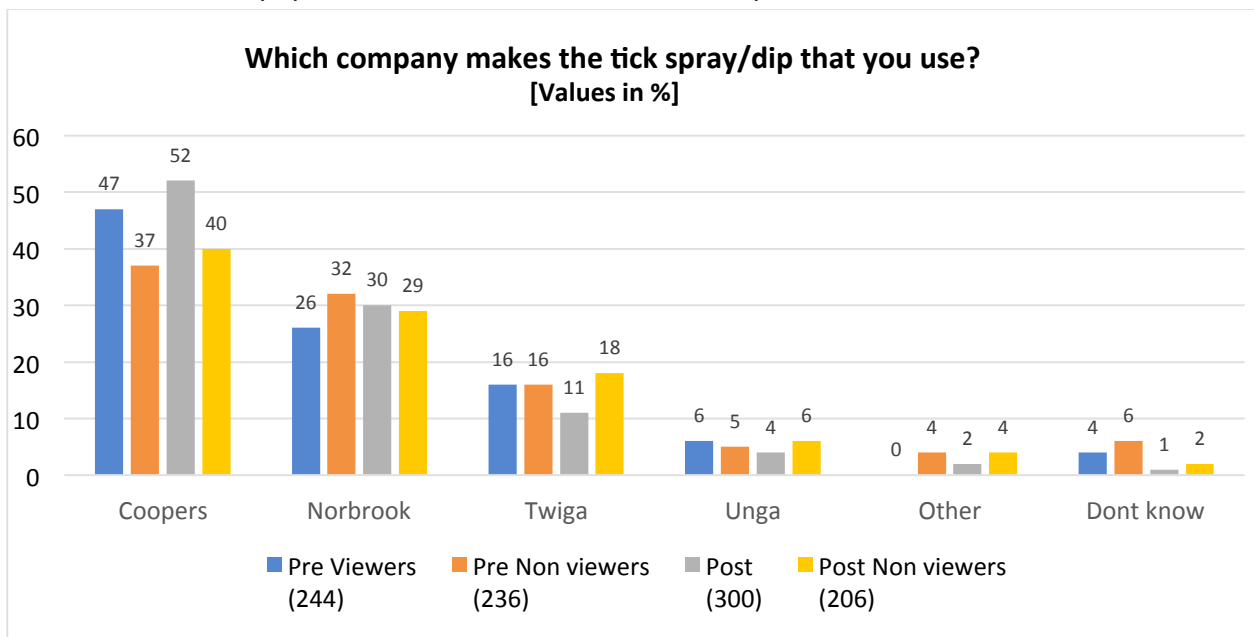


Figure 30: Companies manufacturing cow spray/dip

II.7.8. Methods used to impregnate cows

Artificial Insemination is the most popular method used to impregnate cows with a majority (of all groups mentioning it (see Figure 31 below). Almost half of viewers and non-viewers of the show use a bull meaning that more information needs to be included on the show on the benefits of one method compared to the other.

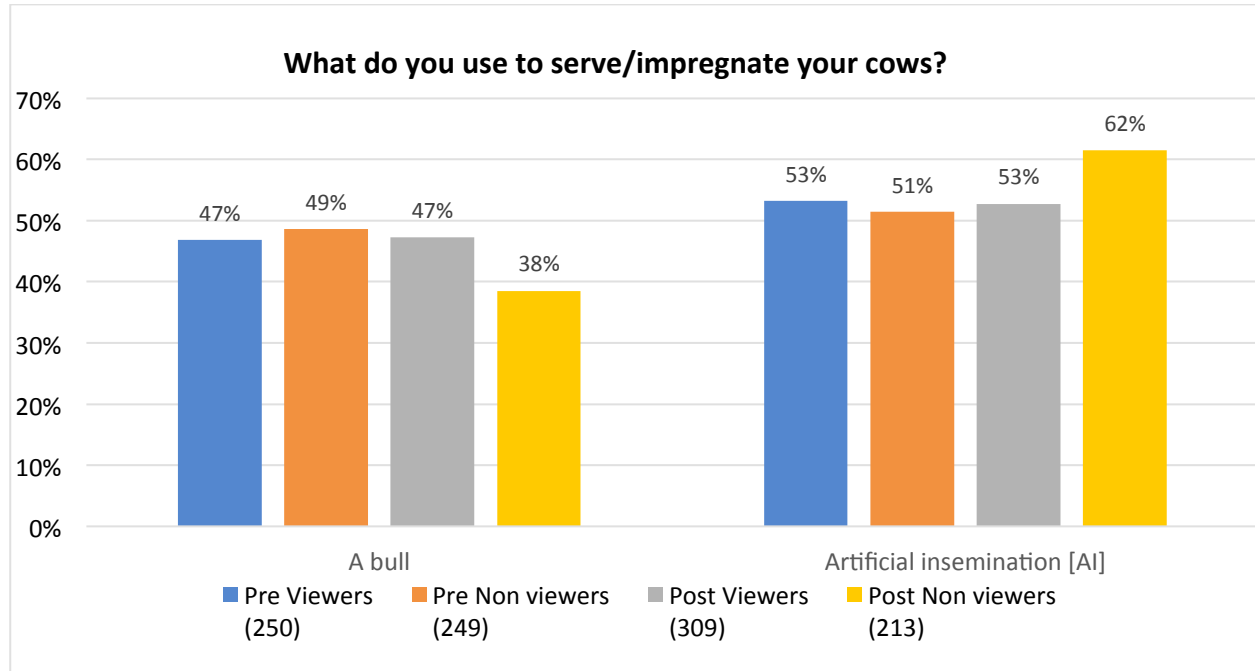


Figure 31: Methods used in impregnating cows

II.7.9. Methods used to make a cow come on heat

As shown in Figure 32 below, Majority of the viewers (42%) and non-viewers (39%) from the post broadcast survey mentioned that they give certain feeds to make their cows come on heat. Addition of medicine in their food also stood out for non-viewers from the post survey. More information needs to be aired on the particular food that is given so as to make the cows come on heat to better educate those that would like to try other methods.

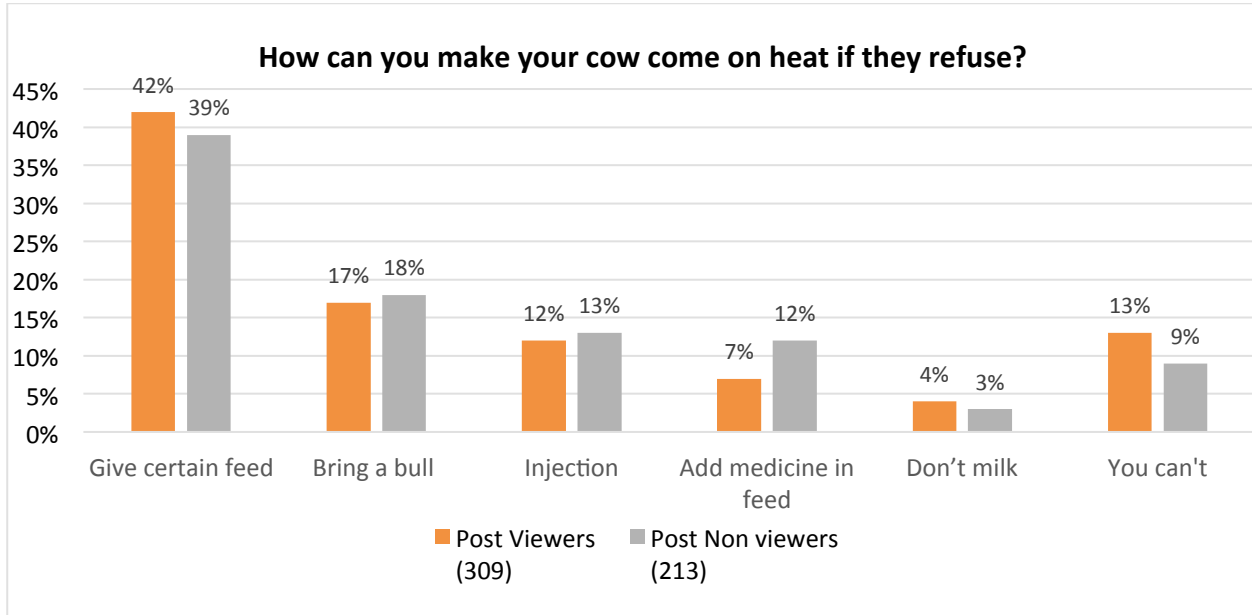


Figure 32: Methods of making cows come on heat

II.8 INSURANCE

II.8.1. Existing Insurance Prevalence

Figure 33 below shows that at least 70% of respondents have an NHIF/Health insurance cover. Only 2% and 3% respondents held crop and livestock insurances respectively. This shows that even amongst farmers, purchase of agricultural insurance remains low. This underlines the need and potential for growth in agricultural insurance schemes that are accessible to smallholder farmers in Kenya.

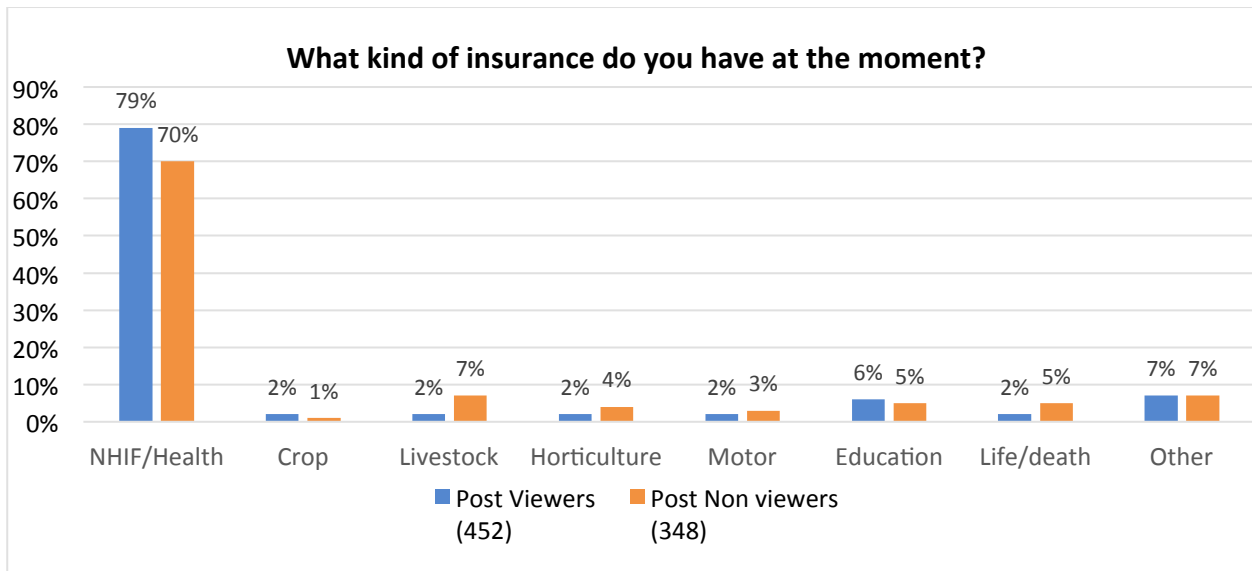


Figure 33: Type of insurance owned

II.8.2. Agricultural insurance purchase after seeing it on Shamba Shape Up

Nearly one third of (28%) of respondents claimed to have purchased an agricultural insurance as a result of seeing insurance being promoted on the programme (see Figure 34 below). This figure needs to be read carefully, as it does not entirely align with other data from this research. However, it does indicate that viewers resonate with the topic of insurance and, if they have not already purchased an insurance, are at least considering to do so. The figure also suggests that viewers feel trustful towards the Shamba Shape Up programme, and would follow advice and recommendations promoted on the show.

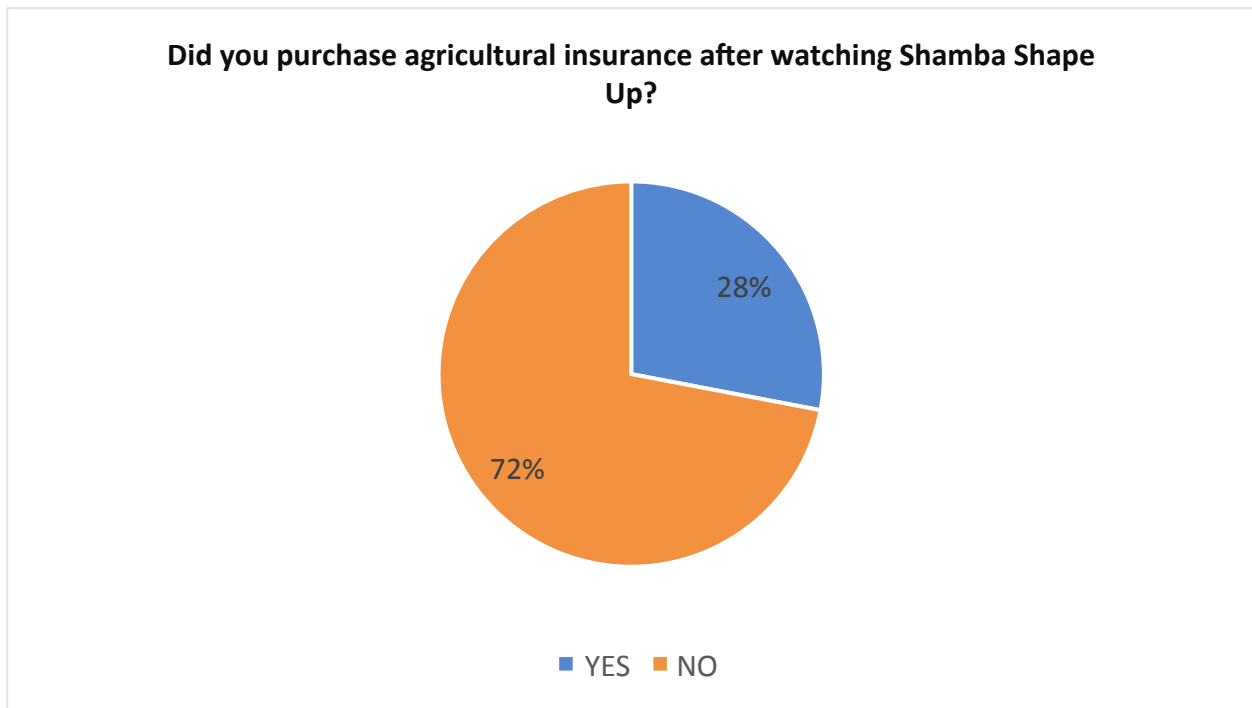


Figure 34: Agricultural insurance purchase

II.9 VIEWERS RECALL FROM SHAMBA SHAPE UP

Looking at the topics that viewers recall from watching the programme only 6% of viewers recall watching episodes dealing with insurance (see Figure 35 below). This figure shows that agricultural insurance remains a widely unknown product amongst smallholder farmers in Kenya. Nonetheless, considering that Series 9 of SSup only featured 5 episodes on the issues, the fact that viewers are remembering the issues indicates that the featured stories raised interest among viewers.

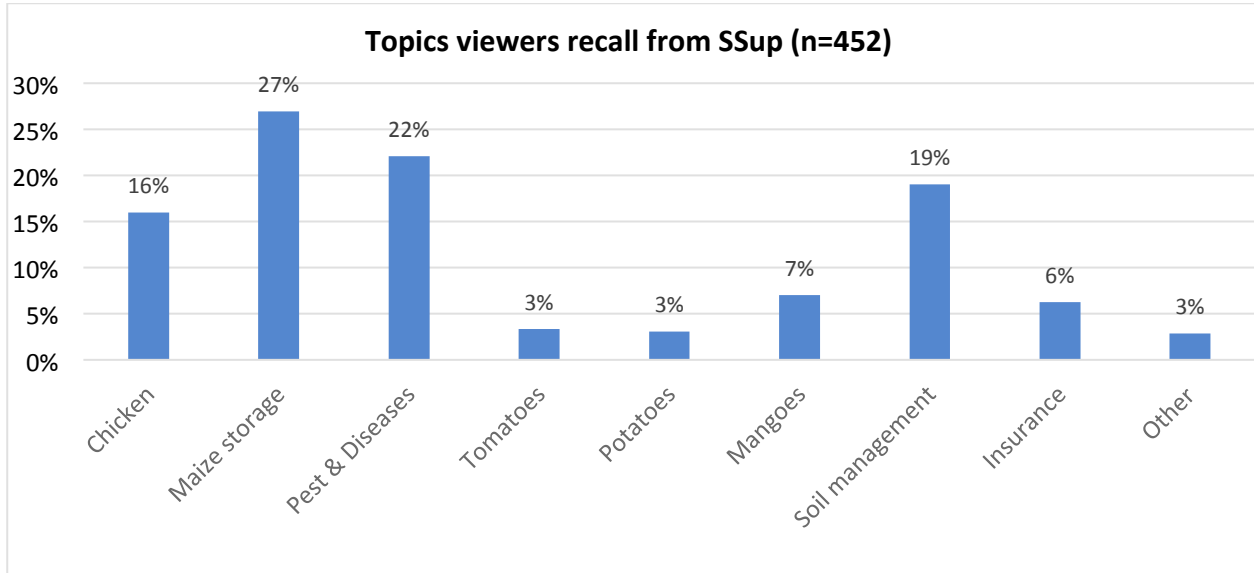


Figure 35: Topics recalled from Shamba Shape Up

II.9.1. Changes made after watching Shamba Shape Up

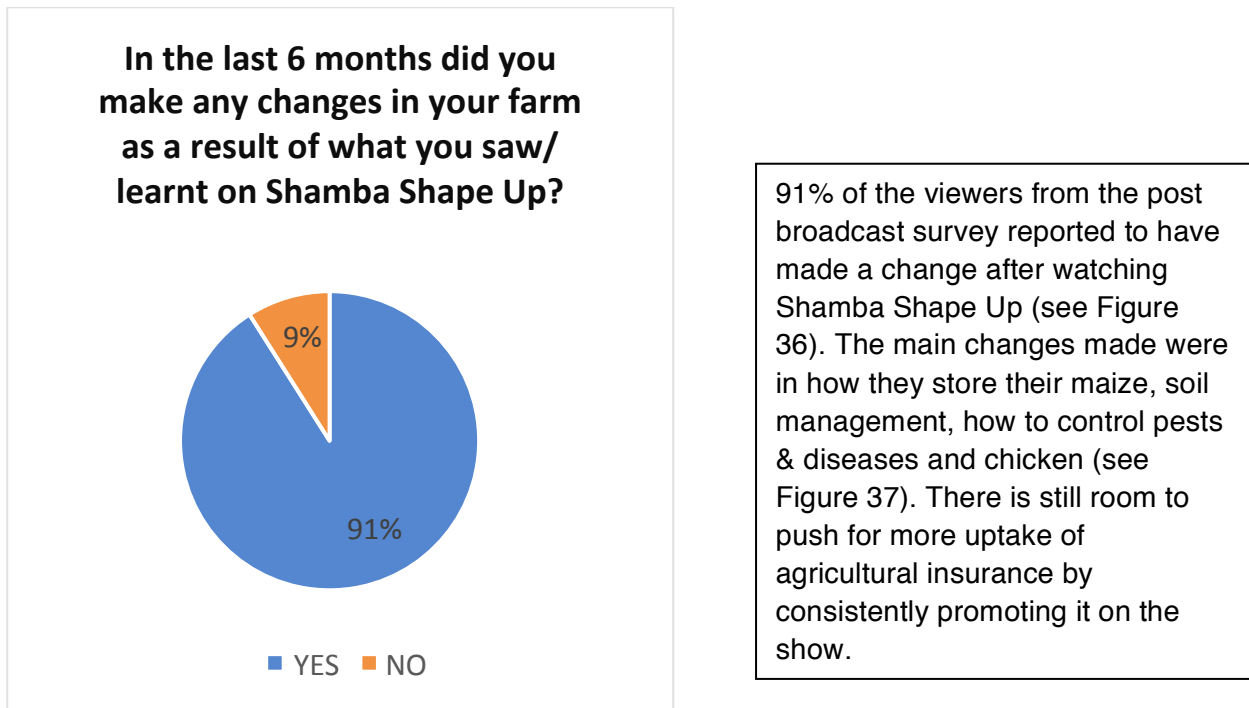


Figure 36: Changes made after watching Shamba Shape Up

II.9.2. Changes made after watching Shamba Shape Up

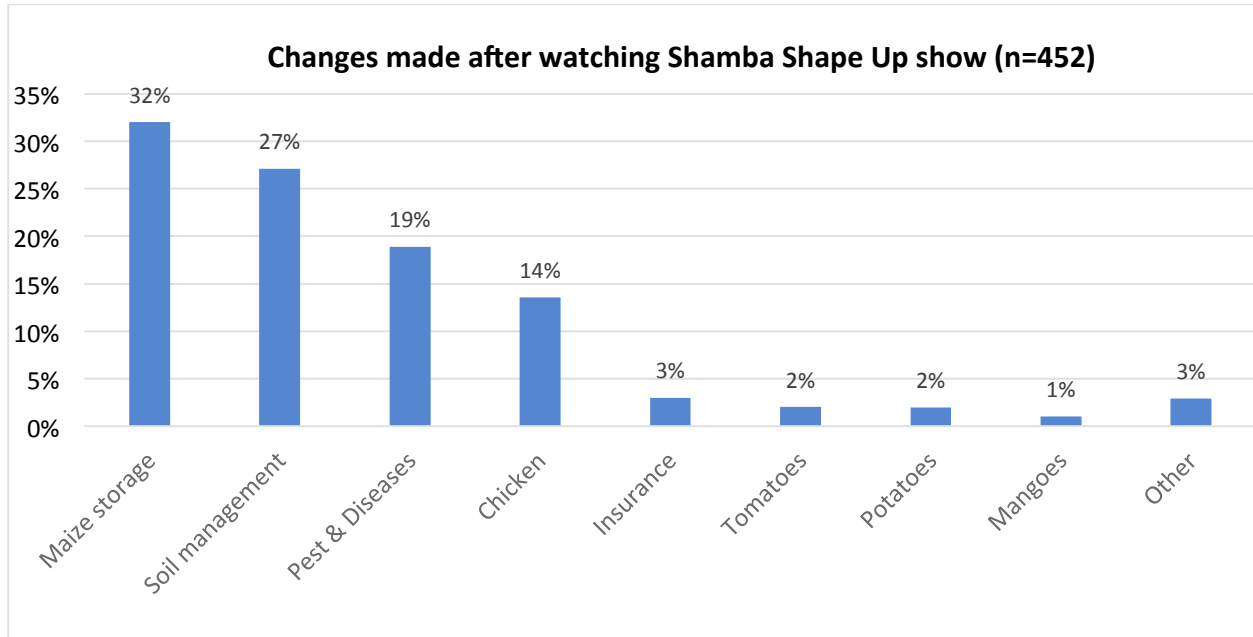


Figure 37: Areas where changes were made after watching Shamba Shape Up

II.9.3. Future programming of Shamba Shape Up

When asked what issues respondents would like to see more of on the programme, the issues ranked highest were Livestock and Greenhouses, followed by Pests and Diseases. Despite being a fairly new topic, nearly one tenth of respondents stated that they would like to see more on insurance on the programme (see Figure 38). This again suggests that there is a high interest in the topic of insurance amongst viewers.

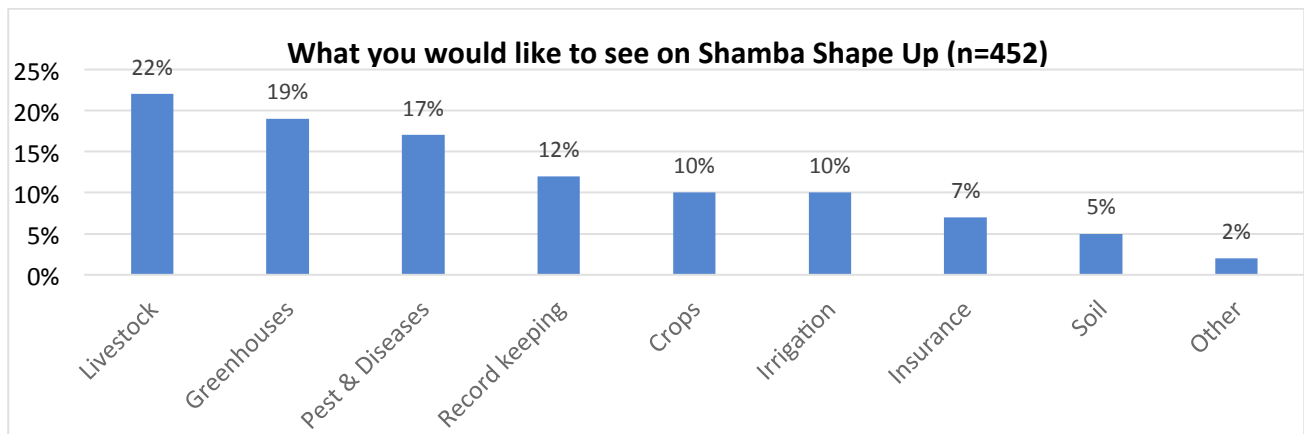


Figure 38: Topics respondents would like to see featured on Shamba Shape Up

4. APPENDIX

4.1. QUESTIONNAIRE

In what year were you born? Reply with a four-digit number like 1980.
Are you male or female? Reply with 1 or 2. 1)Male 2)Female
What County do you currently live in? Reply with the name of your County like Baringo.
Are you a farmer? Reply with 1 or 2. 1)Yes 2)No
Do you watch television? Reply with 1 or 2. 1)Yes 2)No
What is the main crop that you grow? 1)Maize 2)Beans 3)Potatoes 4)Rice 5)Sukuma/Spinach 6)Pigeon peas/Cow pea 7)Fruit trees [eg. Mango] 8)Others
Which sources provided you with most useful farming information in the past 6 months? 1)Radio 2)TV 3)Newspaper 4)Agrodealer 5)Vet 6)Shows 7)Internet 8)Other

Which farming TV programmes have you watched in the past 6 Months?

- 1)Seeds of Gold
- 2)Shamba Shapeup
- 3)Mkulima
- 4)Ukulima Ujuzi
- 5)Kilimo Biashara
- 6)None

Do you grow mango trees on the farm? Reply with 1 or 2.

- 1)Yes
- 2)No

Which of these do you grow?

- 1)Grafted hybrid mango trees for sales
- 2)Grafted hybrid mangoes trees for home use
- 3)Only have traditional mango

Which variety of mangoes do you grow? Reply with a number.

- 1)Apple
- 2)Ngowe
- 3)Kenty
- 4)Tommy
- 5)Vandeyke
- 6)Mbolimbo
- 7)Sabina
- 8)Other
- 9)Don't know

Which of these do you do to harvest mango?

- 1)Let them drop on ground
- 2)Shake tree
- 3)Pick from tree
- 4)Pick with stick/net bag
- 5)Buyers do as they want
- 6)Other

Which of the following do you do before selling your harvested mangoes?

- 1)Wash and dry them
- 2)Pack in crates for transport
- 3)Pack in sacks for transport

Are your mango buyers willing to pay more for higher quality crop? Reply with a number.

- 1)Yes
- 2)No
- 3)Don't know

In the last mango season, was it difficult to sell your mangoes/get a buyer for your mangoes? Reply with a number.

- 1)Yes
- 2)No
- 3)Didn't sell

What was the main reason for this? Reply with a number.

- 1)Prices were low
- 2)Quality was not good
- 3)No one was buying
- 4)Other

Did you grow maize last season? Reply with 1 or 2.

- 1)Yes
- 2)No

How many acres of maize did you plant in the last season?

How many 90kg bags of maize did you harvest last season? Reply with a number.

- 1)1-5 bags
- 2)6-12 bags
- 3)13-25 bags
- 4)Over 25 bags

How many bags didn't you use for human consumption because they were spoilt? Reply with a number.

- 1)1-2 bags
- 2)3-5 bags
- 3)6-10 bags
- 4)Over 10 bags

In the last season, what seed variety did you grow?

- 1)A traditional variety
- 2)Reused/recycled previous harvest
- 3)Improved/certified variety [comes in bags]

Which seed manufacturers do you know that produce quality maize seeds?

- 1)Western Seed
- 2)Pioneer
- 3)Simlaw
- 4)East Africa Seed
- 5)Pana Seed
- 6)Kenya Seed
- 7)Other

How do you dry your maize after harvesting?

- 1)Shell & spread on ground
- 2)Shell and spread on tandarua
- 3)Spread on ground with cob
- 4)Spread on tandarua with cob

How do you mainly get the maize off the cob?

- 1)I beat it with a stick
- 2)Shell by hand
- 3)Use a mechanical sheller

How do you mainly know if your maize is dry enough?

- 1)I just know
- 2)I bite it
- 3)Use a bottle and salt method
- 4)Use moisture meter
- 5)Other

What types of bags do you use to keep maize?

- 1)Nylon sacks-no plastic liner
- 2)Nylon sacks-two plastic liners
- 3)Sisal sacks
- 4)Plastic container
- 5)Sheet in store

Which statement best describes what you do with your maize regarding sales?

- 1)I don't sell my maize
- 2)Sell just after harvest
- 3)Keep and sell when prices go up

Which companies have you heard of that sell quality pesticides?

- 1)Amiran
- 2)Bare crop
- 3)Bayer
- 4)Elgon
- 5)Farm chem

- 6)Osho chemical
- 7)Syngenta
- 8)Don't know

From which company (if any) have you bought a product in the past 6 months?

- 1)Amiran
- 2)Bare crop
- 3)Bayer
- 4)Elgon
- 5)Farm chem
- 6)Osho chemical
- 7)Syngenta
- 8)None

During the last season, what did you do when your MAIN CROP got diseases/pests?

- 1)Used pesticide
- 2)Used traditional remedy e.g.ash
- 3)Uprooted the crop
- 4)Nothing

How did you decide on seed for MAIN CROP the last season?

- 1)Agrodealer
- 2)Told by a friend
- 3)Agriculture show
- 4)We always use it
- 5)Internet
- 6)Learnt on TV
- 7)Other

Does your household keep cows for milking?

- 1)Yes
- 2)No

How many adult cows for milking do you currently have? [that are not calves]

- 1)1-3 cows
- 2)4-7 cows
- 3)8-15 cows
- 4)Over 15 cows

How many litres of milk do you get per day?

- 1)1-5 litres
- 2)6-12 litres
- 3)13-25 litres

4)Over 25 litres

What do you feed your cows on?

- 1)Napier or Hay
- 2)Vitamins
- 3)Protein supplements
- 4)Bought animal feed
- 5)Minerals/salt
- 6)Silage
- 7)Maize meal
- 8)Other crops

What supplements if any do you give your cows?

- 1)Kupakula
- 2)Ultramix
- 3)Block salt
- 4)Dairy meal
- 5)Maclik supper
- 6)Diamond xpc
- 7)Don't know

How frequently do you spray or dip the cows? Reply with a number.

- 1)Weekly
- 2)Monthly
- 3)Less often
- 4)Never

Which company makes the tick spray/dip that you use? Reply with a number.

- 1)Coopers
- 2)Unga
- 3)Norbrook
- 4)Twiga
- 5)Other
- 6)Don't know

What do you use to serve/impregnate your cows? Reply with 1 or 2.

- 1)A bull
- 2)Artificial insemination [AI]

How can you make your cow come on heat if they refuse?

- 1) You can't
- 2) Give certain feed
- 3) Don't milk
- 4) Injection
- 5) Add medicine in feed
- 6) Bring a bull
- 7) Other

What kind of insurance do you have at the moment?

- 1) NHIF/Health
- 2) Crop
- 3) Livestock
- 4) Horticulture
- 5) Motor
- 6) Education
- 7) Life/death
- 8) Other

Did you purchase agricultural insurance as a result of watching it on Shamba Shape Up?

- 1) Yes
- 2) No

What do you recall from the programme?

- 1) Chicken
- 2) Maize storage
- 3) Pest & Diseases
- 4) Tomatoes
- 5) Potatoes
- 6) Mangoes
- 7) Soil management
- 8) Insurance
- 9) Other

And in the last 6 months did you make any changes in your farm as a result of what you saw/learnt on Shamba Shape Up?

- 1) Yes
- 2) No

What did you change?

- 1) Chicken
- 2) Maize storage
- 3) Pest & Diseases

- 4) Tomatoes
- 5) Potatoes
- 6) Mangoes
- 7) Soil management
- 8) Insurance
- 9) Other

What would you like to see on Shamba Shape Up?

- 1) Livestock
- 2) Crops
- 3) Greenhouses
- 4) Irrigation
- 5) Pest and disease
- 6) Soil
- 7) Record keeping
- 8) Insurance
- 9) Other