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RESEARCH ARTICLE

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INFLUENCE OF COMMUNITY RADIO CONTENT ON ACCESS TO INFORMATION ON POTATO PRODUCTION BY FARMERS IN KURESOI NORTH SUB-COUNTY, NAKURU COUNTY, KENYA

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ABSTRACT

The current study sought to examine the influence of Community Radio Content on access to information on potato production by farmers in the study area. It employed the correlational research design and targeted the population of 21,048 potato farmers and 19 key informants comprising 18 village elders and the Agricultural Officer in Kuresoi North Sub-County. The clustered random sampling was used to select 150 farmers from the target population while all the key informants were involved in the study. Data was collected from farmers using semi-structured questionnaires and from the key informants using semi-structured interview guides. Quantitative data was analysed using frequency, percentages, means, cross-tabulation and chi-square while qualitative data was analysed using the thematic content analysis technique. Findings revealed that although the majority of the farmers had access to agricultural programmes, 66.4% were not comfortable with the timing of the programmes and 44.8% were not comfortable with the language in which the programmes were broadcasted. Number of programmes accessed, timing of the programmes, and language of the programmes had a statistically significant effect on access to information. The study recommends that Community Radio and other radio stations should also increase the number of agricultural programmes and reconsider the timing and language of the programmes.

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INTRODUCTION

Agriculture is the prop of the Kenyan economy as it provides employment to 80% of the population, directly contributes to 25.6% of the country's GDP, and supports other sectors such as banking, insurance, transport, and tourism (KIPPRA, 2017). Potato is one of the important crops produced in Kenya. It forms one of the staple foods with its consumption being second only to maize. The crop is also a source of livelihood to thousands of rural farmers. Most of the potatoes in Kenya is grown by small-scale farmers who have less than 1 hectare of land (Kyalo, 2014). Kenya is yet to achieve its full potential with regard to potato farming. According to Mbego (2019), Kenya has a potential of producing 8-10 million metric tonnes of potatoes annually against current production that stands at 2-3 million metric tonnes. The current productivity for the average potato farmer in Kenya is 8 tonnes per hectare against the global benchmark of 20-40 tonnes per hectare. The productivity of Kenyan potato farmers is also below that of the

Tanzanian counterparts whose yield stands at 20 tonnes per hectare. A study by Kipkirui (2014) also found that potato farmers in Kenya get low returns for their product due to low market linkages that leave them at the mercy of brokers, rely on rainfall that see many farmers plant at the same time leading to potato glut, and have limited knowledge on how to store and add value to their product forcing them to sell at low prices. Most farmers also use uncertified seeds leading to low productivity. Access to information regarding best potato seed variety, best tilling and planting practices, type and timing and fertilizer, potato pest and disease management, and potato harvesting and storage can assist potato farmers to increase their production and earning from this crop. In the past, this information was disseminated by extension workers hired by the government (Ogola, 2015). But today, extension workers are no longer employed. Community radios can help fill the gap left by the absence of extension worker and provide equitable access to information by all farmers. However, from the studies reviewed by the researcher, none has assessed the viability of Community radio stations as tools for providing

information to potato farmers within the Kenyan context. This study sought to fill this gap by examining how the Community Radio Content influences access to information by farmers in Kuresoi Sub-County, Kenya. Community radio stations are audio broadcasting service providers that serve communities defined a common characteristic such as residing in a specific geographical region or speaking a given language (Al-hassan, Andani, & Abdul-Malik, 2011). Community radio stations are mainly motivated by the need to serve and empower communities of interest rather than commercial gain. They broadcast content that is relevant and specific to the communities of interest. They often owned, operated, and driven by the communities that they serve. They seek to fill the information need that has been ignored by large commercial radio stations such as agriculture, gender inequality, and poverty. Nyareza and Dick (2012) found that community radio stations were the most preferred communication channels by rural farmers in Zimbabwe because their farming programmes were relevant to the farming activities, used the local language and accent, and allowed community members to contribute to the programme content Kumbhare, Padaria, Singh, Kumar, and Sarkar (2015) found that community radios were popular among rural farmers in India with majority of listeners (65%) preferring agricultural success stories followed by interactive programmes. The popularity of community radio stations among rural residents make these media a good channel for disseminating agricultural information. However, from the studies reviewed so far, few have examined the utilization of community radio in disseminating information to potato farmers in Kenya.

The study by Toroitich (2017) established that there was deficiency in the knowledge on how to manage the potato late blight disease among potato farmers in Nakuru County. Most farmers use inefficient techniques for detecting the disease such as examination of stem and leaf colour. Kamau (2019) also observed that potato production in Nakuru County was not commensurate to the land allocated, seeds used, fertilizer seed, and pesticides used, which signified inefficiency in farming practices. Most farmers were producing below their optimal capacity. Although the studies Toroitich (2017) and Kamau (2019) signify the existence of deficiency in knowledge about potato production best practices among farmers in Nakuru, they did not examine the potential of community radio in address this deficiency. The present study sought to fill this research gap.

LITERATURE REVIEW

Information access is a broad and ambiguous concept that can mean different things to different scholars. Studies have used diverse approaches of measuring access to information by farmers. In her study focusing on the Tanzania situation, Levi (2015) evaluated information access in terms of farmers' accessibility to agricultural information, timeliness of the information, and relevance of the information. On the other hand, Ng'ang'a (2013) assessed access to agricultural information using indicators such type of information accessed, frequency of receiving the information, usefulness of the information, accuracy and relevance of the information, timeliness, level of detail, and confidence in the source of information. There are various channels through which farmers can access agricultural information. The most common channels include face-to-face interaction, print-media, and digital media (Ogola, 2015).

The effectiveness of a given channel in disseminating information varies from one setting to the next depending on the characteristics of the population, available infrastructure and technology, and the type of information being communicated (Taiy, Onyango, Nkurumwa, & Ngetich, 2017). It is therefore paramount for development stakeholders in a given population to identify the most appropriate channel for disseminating information to their farmers. It is in this regard that this study sought to examine the influence of Community Radio Content on access to information on potato production by farmers in Kuresoi North Sub-County. An important aspect of Community radio stations that determines their viability to promote farmers access to agricultural information is the content of the media (Ogola, 2015). Available radio stations must develop content and programmes that meet farmers' need for information. The study by Mtega (2015) revealed that the number of agricultural programmes broadcasted was one of the determinants of access to agricultural information by Tanzanian farmers. Other factors that were found to have an impact on farmers' access to information were language in which the programmes were broadcasted and timing of the programmes.

For a long time, the Kenyan mainstream broadcasting media houses have been accused of concentrating on foreign content and giving little room for local content (UNESCO, 2016). This situation prompted the Kenyan government to develop regulations that requires all media houses to ensure at least 40% of the content that they air is local. The law was passed in 2018 as the Local Content Act (Republic of Kenya, 2018). Although the airing of local content by Kenyan media houses has increased, majority of the content in mainstream media is not focused on agriculture. Nonetheless, there has been a notable increase in the number of agricultural programmes and features in mainstream media (Njeri&Mberia, 2019). It is not enough for a radio station to simply air an agricultural programme; the timing of the programme must also be right. Nazari and Hassan (2011) found that a good number of agricultural programmes in Iranian radio stations are not timed to suit farmers. The study revealed that the best time to air agricultural programmes is between 6 pm to 8 pm when the farmers are back from the field and before they go to bed. The respondents also believed that the most appropriate duration of the program should be 20 minutes (Nazari & Hassan, 2011). The language of broadcasting has also emerged as a major determinant of farmers' access to agricultural information via radio stations. In the study by Nazari and Hassan (2011), 68.3% of the farmers expressed that agricultural programmes should match the language and culture of the population being targeted. Producing programmes in local languages is an effective way of enhancing access to and use of information by farmers. The study by Taiyet *et al.* (2017) revealed that more than 60% of smallholder potato farmers in Kenya have the primary level of education or below. Consequently, language is bound to be a major determinant of their ability to utilize agricultural information conveyed through radio stations. Language barriers are no longer an issue in the modern Kenya broadcasting industry as there are many TV and Radio stations that do their broadcasts in local languages (Githaiga, 2013). Community stations have also cropped up in different areas, which has helped to meet the specific information needs of their respective communities. Githaiga (2013) however noted that due to limited resources, many ethnic and community radio stations cannot recruit professionals limiting their capacity to produce high quality content.

Consequently, most of these stations are dominated by foreign content such American, Congolese and Nigerian music. Parviastian, Lashgarara, and Nejad (2011) further stressed the need for radio stations to develop and air programmes that are consistent with the real challenges and culture experienced by its audience. It is not adequate for a station to simply translate technical agricultural information into local language; the stations ought to present this information in a way that makes it relevant to farmers' way of life and cultural context.

RESEARCH METHODOLOGY

The study made use of the correlational research design. The target population for the study was the 21,048 potato farmers, and 19 key informants comprising 18 village elders and the agricultural officer in Kuresoi North Sub-County (Kenya National Bureau of Statistics, 2013).

Sample Size Determination and Sampling Technique

The sample size was determined using the Cochran (1977) formula:

$$n = \frac{z^2 p(1-p)}{e^2}$$

Where:

n= sample size

z= critical value for the desired confidence level (1.96 for the proposed study)

p= estimated proportion of an attribute that is present in the population (0.5 for proposed study)

e= the desired level of precision or margin of error (0.08 for the proposed study)

Therefore, the appropriate sample size was:

$$n = \frac{1.96^2 0.5(1-0.5)}{0.08^2}$$

$$n = 150.0625 \approx 150 \text{ potato farmers}$$

All the 19 key informants were involved in the study. The clustered sampling was used to select farmers where the four wards that make up Kuresoi Sub-County were used as clusters.

Table 1: Sampling Plan

Ward	Population	Sampling Proportion (%)	Sample Size
Kiptororo	5,956	28.3	42
Nyota	7,032	33.4	50
Sirikwa	2,797	13.3	20
Kamara	5,263	25.0	38
Total	21,048	100.0	150

The number of farmers that were selected in each ward was determined by the population of potato farmers' in the ward. The systematic sampling method was used to select farmers from each ward where the research picked a random starting point and then selected every 50th potato farm until the desired sample size was attained. There was no sampling for the key informants.

Data Collection Tools: A questionnaire was used to collect data from farmers. It was divided into two sections: Section A for assessing respondents' demographic profile, and Section B comprising questions assessing the study variables. Section B comprised both closed-ended and open-ended questions. An interview guide was used to collect data from key informants comprising of the Agricultural Officer in Kuresoi Sub-County and 18 village heads. The interview guide was semi-structured in nature. The instruments were pre-tested in the neighbouring Kuresoi South Sub-County in order to examine the validity and reliability of research instrument. The pilot study involved 38 potato farmers and 2 key informants, which is equivalent to 10% of the sample size for the main study. Validity of the instruments was assessed by examining the comprehensiveness and relevance of the data collected during the pilot. Validity was further enhanced by dividing the instruments into sections that correspond to each study variable so as to ensure that all variables are adequately covered. Validity was also enhanced by consulting the University research supervisors who have in-depth expertise on the study topic. Reliability was assessed by using the test-retest method. The questionnaire was administered to the same set of 38 respondents within an interval of two weeks. The responses for the first wave were compared with the responses for the second wave using the Pearson correlation method. The correlation coefficient was 0.781 suggest that there was a close similarity between the data obtained during the two waves of data collection. This finding led to the conclusion that the questionnaire had a high level of reliability. This analysis was aided by the statistical package for social sciences (SPSS) version 25 software. Only the closed-ended questions in the questionnaire were subjected to the reliability test.

Data Collection and Analysis Procedures: Having ascertained the validity and reliability of the data collection instrument, the researcher embarked on the main data collection exercise by obtain the requisite approvals. Using the systematic sampling method, the researcher identified the famers to be involved in the study, approached the farmers in person, each farmer at time, explained the study to them, and requested for the voluntary participation. The research personally administered the questionnaire on the spot once the respondents agreed to participate. The researcher also contacted the key informant and make arrangement regarding the dates and time for the interviews. Quantitative data collected using the close-ended questions was sorted, coded, and entered into the SPSS program where it was analysed using descriptive frequencies, percentages, and means while cross-tabulation with chi-square test was used to conduct the inferential analysis because the dependent and all the independent variables were categorical (Warne, 2017). Qualitative data collected was sorted and analysed using the thematic content analysis technique.

RESULTS AND DISCUSSION

The study successfully collected data from 116 potato farmers out of a target of 150 farmers. This figure translates to a response rate 77.3%. Out of the 16 key informants were targeted for the interview, the study was able to reach and interview 12 translating to a response rate of 75%. Male made up 60.3% of the sample of farmers while female accounted for 39.7%. The findings are consistent with the survey by Kenya National Bureau of Statistics (2013), which found that 72.7%

Table 2: Response Rate and Sample Characteristics

Item	Categories	Value
Response Rate	Farmers	77.3%
Gender	Male-	60.3%
	Female-	39.7%
Age	Mean	41.13 years
Highest Education Level	No formal education	3.4%
	Primary	31.9%
	Secondary	39.7%
	Tertiary (College)	10.3%
	Tertiary (University)	14.7%
Years in Potato Farming	Mean	7.34 years
Acres under Potato production	Mean	5.21 acres

Source: Field Data (2020)

of households in Kuresoi North Sub-County were headed by males. Since the study targeted the head of the household that was engaging in potato production within the study area, it is surprising that the majority of the respondents were male. The average age of the farmers who participated in the study was 41.13 years. The youngest was 32 years old while the oldest was 53 years. This finding is consistent with Taiyet *et al.*, who found that 49.3% of potato farmers Nakuru County were in the 31-45 years' age brackets. These findings imply that the sample was representative of the population of potato farmers in the study area. Most of the respondents (39.7%) had the secondary level of education while 31.9% had attained the primary level of education. About 10.3% had gone to a tertiary college while 14.7% had university level of education. About 3.4% of the farmers had no formal schooling. These findings are consistent with the study by Taiy *et al.* (2017), which found that the majority of the potato farmers in Nakuru County had the secondary level of education. These findings suggest that the sample of the current study is representative of the population of potato farmers in the study area in terms of education level.

Respondents had been doing potato farming for an average of 7.34 years. The least experienced respondents had been doing potato farming for 2 years while the most experienced had been in this trade for 14 years. These findings show that most of the respondents had considerable experience in potato farming and thus were in position to provide informed opinion regarding the study issues. Respondents had an average of 5.21 acres of land in potato farming. The respondents with the smallest portion had 1 acre while the highest had 42 acres under potato production. These statistics are congruent with the study by Taiyet *et al.* (2017), which found that the majority of potato farmers in Nakuru County were small scale farmers. The statistics thus suggest that the sample from which the current study gathered its data is representative of the population of potato farmers in Nakuru County in regards to scale of production.

Access to Information on Potato Production: The dependent variable of the study was access to information on potato production. Several indicators were used to assess this variable including the proportion of farmers with access to information, adequacy of the information, timeliness of the information, and accuracy of the information. Proportion of Farmers with Access to Information in Potato Production. To assess the proportion of farmers with access to information on potato production, respondents were asked to indicate whether they have access to information about potato farming. Results showed that 94% of the farmers had access to information on potato production.

This finding implies that the majority of the farmers in Kuresoi North Sub-County have access to some information regarding potato farming. To further assess this issue, respondents were asked to indicate the sources from which they had acquired information on potato farming. Their sources are summarized into the following five themes:

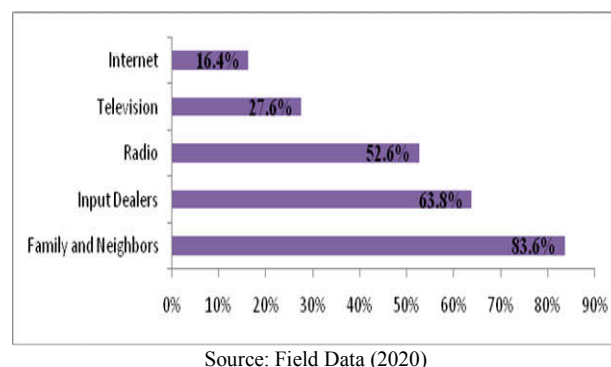
**Figure 2. Respondents Sources of Information on Potato Production**

Figure 2 reveals that the most popular source of information on potato production among the farmers was family and neighbours with 83.6% of the respondents indicating that they got their information from this source. The importance of this source of information was also captured during the interview where Informant4 elucidated that:

“Many people here have a long history of potato farming. Most of the farmers use the information that was passed on to them by the parents and grandparents in potato farming.”

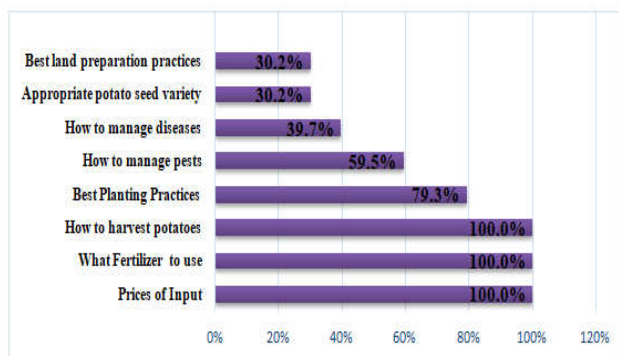
Informant9 also added that:

“Many farmers do not have a reliable source of information. They rely on the information shared in the neighbourhood. When one farmer learns something new, he or she passes the knowledge to the others.”

The sentiments expressed by the interviewee suggests that many farmers in Kuresoi North rely most rely on information passed on to them by previous generations with whom the interacted when they grew up. Although this channel information is essential in preserving essential cultural knowledge on potato farming, it limits the farmers' access to information on new method of potato production. Results in Figure 3 also show that dealers of farm input such as seeds, fertilizers, and pesticides are also a popular source on information for the potato farmers in the study area with 63.8% of the respondent reporting to have gained some information from this source. Although vendors are important sources of information, some of the information that they share with farmer may be biased by the need to sell their products to the farmers. Radio, which is the subject of the study, emerged as the third popular source of information with 52.6% of the respondents indicating that they got some of the information in their possession from this source. About 27.6% of the respondents said that they got information from television while 16.4% reported that the internet is also an important source of information to them.

Adequacy of the Information: The study also sought to establish whether the information that the respondents had obtained on potato production is sufficient.

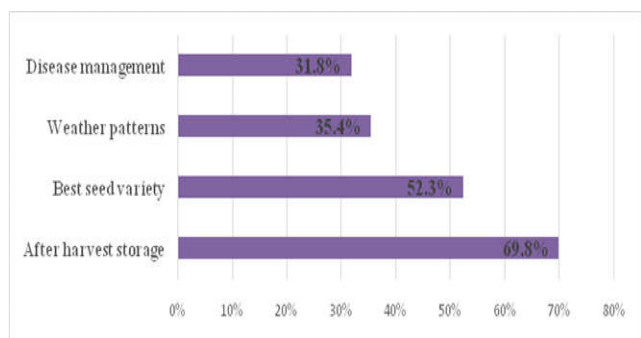
Mbagwu *et al.* (2018) noted that there is usually a gap between the information that farmers possess and the information that they needed. This analysis sought to determine whether this was the case in Kuresoi North. Respondents were asked to indicate whether the information they possessed on potato farming was adequate. About 80.2% of the respondents felt that the information in the possession regarding potato production was not adequate. This implies that the majority of the farmers in the study believe that they still need additional information on potato production for them to optimize the value of this crop. To further assess the adequacy of information, farmers were asked to indicate issues related to potato production that they felt they were well informed on. Their responses are summarized in Figure 3.



Source: Field Data (2020)

Figure 3. Issues on which Farmers have Information

Figure 3 reveals that all farmers felt that they were adequately informed about prices of inputs, type of fertilizers to use, and how to harvest potatoes. About 79.3% of the farmers were the view that the possessed adequate information on best potato planting practices while 59.5% said that they had adequate information on how to manage pests. Less than half of the respondents felt that they had sufficient information on how to manage diseases (39.7%), appropriate potato seed variety (30.2%), and best land preparation practices (30.2%) suggest deficiency in the supply of information on these issues. The findings are congruent with Taiy *et al.* (2017), who found that the majority of farmers in Nakuru County were utilizing tradition potato seed variety whose appropriateness for the soil type in the region had not been tested. Other challenges experienced by these farmers were disease management and post-harvest losses. In addition, farmers were asked to list issues relating to potato farming on which they felt they needed more information. Their responses are summarised in Figure 4:



Source: Field Data (2020)

Figure 4: Issues on which Farmers needed more Information

Figure 4 shows that most farmers (69.8%) felt that they needed more information on how to store their potatoes after harvest. This finding is consistent with Taiy *et al.* (2017) who found many potato farmers in Nakuru County were struggling with post-harvest losses. In addition, the fact that potato farming in the region is rain-dependent, farmers plant and harvest at the same time leading to a glut that significantly diminishes the prices that the farmers get for the produces. Knowledge on how farmers can store their produce as they wait for the right time to sell would significantly improve the farmers' earnings. About 52.3% of the respondents felt that they needed more information on best seed variety, 35.4% said that they needed additional information on weather patterns while 31.8% thought that they needed more information on disease management. The issue of weather pattern information may be vital at time when the country is experiencing changes in weather and climatic patterns. Since potato farming in the area is rain-fed, farmers need information on when they should expect the rains and the amount of rain to expect so as they can know when to plant and how to tend to their crops.

Timeliness of the Information: Another indicator that was used to assess farmers' access to information on potato production was the timeliness of the information. The value of information diminishes when this information is not delivered to the farmer at the right time. Information such as changes in weather pattern, an outbreak of a disease, or pest invasion needs to be delivered to farmers in good time so as to enable them to act on it and take necessary action. Respondents were asked to indicate whether most of the information that they receive on potato production is delivered to them in a good time. About 93.1% of the respondents felt that the information they need on potato production does not reach them in good time. This implies the majority of the farmers do not get the chance to utilize information because they do not get it in the appropriate time. This finding is consistent with the study by Ng'ang'a (2013) who observed that many Kenyan farmers rely on traditional channels of communication such as friends and neighbours, radio stations, and government officials. These sources do not deliver information to the farmers in a timely manner as compared to digital sources such as mobile apps and the world wide web. The findings highlight the need to provide farmers with prompt information.

Table 3: Aggregate Access to Information Score

Category	Frequency	Percent
Low Information Access	83	71.6
High Information Access	33	28.4

Source: Field Data (2020)

Table 3 shows that the majority of the farmers (71.6%) had low access to information. It implies that these farmers had an aggregate information access score that is less than 2. About 28.4% had aggregate score of 3 or more suggesting that they had access to information that is adequate, timely, and accurate.

Content of Community Radio and Access to Information

The objective of the study was to examine the influence of Community Radio Content on access to information on potato production by farmers in Kuresoi North Sub-County. Three issues were interrogated namely number of agricultural programmes, timing of the programmes, and language of the programme.

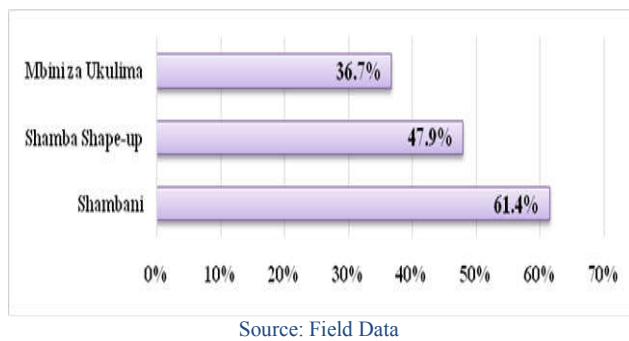


Figure 5: Agricultural Programmes Aired on Community Radio

Number of Agricultural Programmes: The study presumed that for radio to be effective tools for disseminating information to farmers, the radio stations must air agricultural programmes. More the programmes were expected to lead to greater the access to information by the farmers. The study sought to determine whether this is the case in Kuresoi North. Respondents were asked whether they know of any agricultural programme aired on Community Radio. Results showed that 91.4% of the respondents were aware of an agricultural programmes aired on Community Radio. The fact that the majority of the respondent reported knowledge of an agricultural programmes means that Community Radio actual airs agricultural programmes. This data thus reflects more on the respondents' awareness of the programmes rather than whether Community Radio airs the programmes or not.

To further assess this issue, respondents were asked to list the agricultural programmes that are aired on Community Radio. Three programmes were frequently mentioned as shown in Figure 5. Shambani was the most widely known agricultural programme in the study area with 61.4% of the farmers being aware of this programme. Shamba Shape-up is also known by 47.9% of the farmers while 36.7% of the farmers were aware of a programme known as Mbinuza Ukulima. To assess whether there is a connection between number of programmes and access to agricultural information, data on the number of programme mentioned by each respondents was computed. The number ranged from 0 to 3. This data was then compared with the farmers' access to information score using the cross-tabulation with chi-square test. Results are presented in Table 4.

Table 4: Influence on Number of Programmes on Information Access

Number of agricultural programmes on Community Radio that farmers is aware of.	Information Access Category	Information Access Category	
		Low Access	High Access
Zero		100.0%	0.0%
One		83.6%	16.4%
Two		59.4%	40.6%
Three		42.1%	57.9%

Pearson Chi-square ($X^2 = 18.346$, $df=3$, $p=.000$)

Source: Field Data (2020)

Table 4 illustrates that the proportion of farmers who have high access to information was highest in the category of respondents who listed three programmes (57.9%), followed by the category of farmers who identified two programmes (40.6%). The proportion of farmers with high access to information in the category of farmers who mention one programme was 16.4% while this proportion was 0 in the category of farmers who were not aware of any agricultural programme aired on Community Radio.

This pattern suggests that farmers who are aware of large number of agricultural programmes being aired on radio have greater access to information. The chi-square test ($X^2 = 18.346$, $p=.000$) indicate that there is a statistically significant difference in access to information across the four categories of farmers. The findings imply that the number of agricultural programme that farmers have access to has a statistically significant influence on access to information on potato production by farmers in Kuresoi North.

Timing of the Programmes: Another factor relating to radio content that the study sought to examine is the time that the content is aired. The study sought to establish whether potato farmers in the study area where comfortable with the timing of the programmes as well as whether the timing of the programmes influence access to information by the farmers. To assess this issue, respondents were asked to indicate the time during which the agricultural programmes on Community Radio are aired.

Table 5: Timing of Agricultural Programmes on Community Radio

Programme	Day	Time
Shambani	Daily	9.30- 10.00 pm
Shamba Shape-Up	Sundays	1.30- 2.30 pm
Mbinuza Ukulima	Wednesday	12.30 – 1.00 pm

Source: Field Data (2020)

Table 5 presents the results. Table 5 shows that the Shambani programme is aired daily between 9.30 pm and 10.00 pm while Shamba Shape-Up is aired on Sundays between 1.30pm and 2.30 pm. Mbinuza Ukulima is aired every Wednesday between 12.30 pm and 1.00 pm. Respondents were asked whether they were comfortable with timing of these programmes. The majority of the respondents (66.4%) were not comfortable with the timing of the agricultural radio programmes. It appears as though most of the potato farmers in the study area feel that the radio programmes are mistimed. This position is also reinforced by the qualitative data collected during the interviews with key informants. Informant5 expressed that:

“Programmes like Shambani are aired late at night when most farmers have gone to sleep. These programmes should be brought early because farmers do not stay up for long because the need to wake up early in the morning.”

Informant9 added that

“Most of the programmes are aired during the day when farmers are in the fields or late at night when farmers are asleep. They need to be aired between 6.00pm and 9.00pm when most farmers have returned to the homes and are not asleep.”

Informant12 also mentioned that:

“Most of these programmes are aired once a week. It makes it difficult for one to follow-up and we usually have many things in our mind. Sometimes, I remember that the programme was being aired when it is already over.”

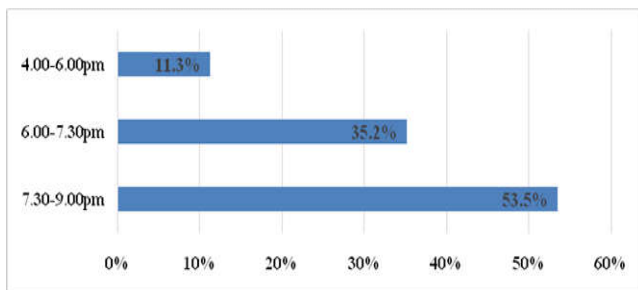
The sentiments by Informant12 express dissatisfaction not just with the timing of the programmes but also the frequency at which the programmes are aired. The informant laments that airing of the programmes on a weekly basis make it difficult for the farmers to keep tab of the programmes.

Table 6: Influence of Programme Timing on Information Access

		Information Access Category	
		Low Access	High Access
Whether farmer is comfortable with timing of agricultural programme on Community Radio	Not Comfortable	88.3%	11.7%
	Comfortable	38.5%	61.5%
Chi-square ($X^2 = 31.605$, $df=1$, $p=.000$)			

Source: Field Data (2020)

The influence of the timing of the programmes on information access was assessed using the cross-tabulation with chi-square test. Results are presented in Table 6. Table 6 illustrates that the proportion of farmers with high access to information is a lot higher in the category of farmers who were comfortable with the programmes' timing (61.5%) than in the category of farmers who were not comfortable with the timing (11.7%). The chi-square test ($X^2 = 31.605$, $p=.000$) further shows that the difference in information in the two categories of farmers is statistically significant at the 0.01 level of significance. These findings imply that timing of the programmes has a statistically significant influence on access to information on potato production by farmers in Kuresoi North. The findings indicate that for Community Radio to have a more significant impact on farmers' access to information, it needs to air its programme during times that most farmers are comfortable with. The findings create impetus for radio stations to discover times that the majority of farmers are comfortable with in order to air their programmes. This issue was explored in the study by asking respondent who were not comfortable with the timing of the programmes to suggest the best time to air such programmes. Results are summarized in Figure 6.



Source: Field Data (2020)

Figure 6: Best Time for Airing Agricultural Programmes

Figure 6 shows that the majority of the farmers (53.5%) would prefer the agricultural programmes to be aired between 7.30 and 9.00 pm while 35.2% prefer the programmes to be aired a bit early (6.00-7.30 pm). About 11.3% were of the view that the programmes should be aired between 4.00 pm and 6.00pm. To reach the majority of the farmers, the best time for programmes seems to be between 7.30 and 9.00 pm.

Language of the Programmes: The final issue that was interrogated relating to content of Community radio stations is the language in which the agricultural programmes are broadcasted. Community Radio airs most of its programmes in the Swahili language. Respondents were asked to give their view whether airing the agricultural programmes in Swahili is appropriate. Although a majority of the respondents (55.2%) said that they were comfortable with the language in which the agricultural shows in Community Radio are aired, a noteworthy proportion (44.8%) was not comfortable.

Table 7: Influence of Programme Language on Information Access

		Information Access Category	
		Low Access	High Access
Whether farmer is comfortable with language used in agricultural programme on Community Radio	Not Comfortable	92.3%	7.7%
	Comfortable	54.7%	45.3%
Chi-square ($X^2 = 19.948$, $df=1$, $p=.000$)			

Source: Field Data (2020)

Interviewees opinion on this issue was also sharply divided. On one hand, Informant2 said that:

“The programmes on Citizens are aired in Kiswahili; this is okay because it enables the programme to reach many people from different communities.”

Informant11 also expressed that:

“Community Radio are right in airing the programmes in Kiswahili because many people listen to the stations. Kiswahili is understood by many people.”

On the other hand, Informant6 articulated that:

“The programmes should be aired in local languages because a good number of farmers do not understand Kiswahili. The information would reach more people if the programmes were aired in local languages.”

To assess the influence of programme language on access to information, the proportion of farmers who have high access in the category of farmers who were comfortable with the programme language was compared to the proportion in the category of farmers who were not comfortable with the language using the cross-tabulation with chi-square test. Results are presented in Table 7. Table 7 shows that the proportion of farmers with high access to information was higher in the category of farmers who were comfortable with programme language (45.3%) than in the category of farmers who were not comfortable with the language (7.7%). The chi-square test ($X^2 = 19.948$, $p=.000$) show that the difference in information access in the two categories of farmers is statistically significant at the 0.01 level of significance. These findings imply that the language use in the agricultural programme has a statistically significant influence on access to information on potato production by farmers in Kuresoi North. The findings highlight the need to develop programmes that cater to the needs of farmers who are not comfortable with programmes that are aired in Swahili.

Conclusions and Recommendations

Results revealed that while majority of the farmers believed that they had access to some accurate information on potato farming, most of the farmers felt that the information in their possession was not adequate and is usually not presented to them on time. Based on the parameters used, the proportion of farmers who had high access to information on potato production was 28.4%. This implied that the majority of the farmers in the study area had low access to information on potato production. The study concludes that the number of agricultural programmes that farmers can access has a

significant influence on their access to information on potato production by farmers in Kuresoi North. The timing of the programme also has a significant influence on access to information with findings revealing that the majority of the respondents were not comfortable with the timing of the programmes. A sizeable section of the farmers is also not comfortable with the language of the programme, which was also found to have a significant influence on access to information.

The study recommends that to enhance farmers' access to information on potato production, Community Radio and other radio stations that broadcast agricultural programmes should publicise their programmes so as to make farmers aware of the existence and timing of the programme. Results showed that the number of agricultural programmes that a farmer is aware of and is able to access has a significant influence on their level of information access. Consequently, radio stations should create awareness regarding their programmes. Other stakeholders such as the Agricultural Officer in the study area should create awareness regarding the existence and value of these programmes through existing administrative structures such as the village elders. In addition, Community Radio and other radio stations should consider increasing the number of agricultural programmes and the frequency in which these programmes are aired. The national and county governments should also support the radio stations in developing additional agricultural programmes in order to advance the agricultural sector in the country. Community Radio should consider rescheduling the timing of agricultural programme. Finding showed that the majority of the farmers in the study area were not comfortable with the current timing of existing agricultural programme. In addition, the majority of the farmers expressed that the best time to air these programmes would be between 7.30 pm and 9.00 pm. Radio stations should consider changing the timing of the programmes to this period.

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