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Demand-driven and Cost Effective Production: What the Farmers Ought to know. A case of Local Chicken Enterprise in Masindi District-Uganda

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Abstract:

Most African communities depend on agriculture for both income generation and food security and yet farming has faced and is still confronted with a lot of production and market related hardships. Despite all these constraints, farmers are stuck on agriculture as it's the only definite way of earning a living. The mistake farmers and other agricultural practitioners continuously make is to produce first and look for the market later. This is where buyers and the middle men in particular exploit and a conclusion is eventually made by the producer that, "there is no money in agriculture." Farmers including those who want to reap from agriculture need to first change their attitudes towards it and secondly produce what the markets are demanding at particular point in time. This therefore calls for institutionally guided farmer market research, enterprise selection, experimentation and enterprise development. Farmers can only benefit from agricultural production after carefully understanding what the buyer wants as in the type of the commodity, size, quantity, quality, frequency of supply, conditions of supply and the price the buyer is willing to offer among others. Where the selected enterprise has very high costs of production, the farmer should minimize costs by substituting some inputs with local materials and also negotiate for a premium price and sign contracts with the buyers. Two farmer research groups in Masindi district in Uganda went through the above processes and have got success stories to tell.

Introduction

Uganda is one of the countries in the sub-Saharan Africa whose population depend on agriculture as a major source of livelihood. Having a sustainable livelihood would therefore call for production beyond subsistence which is a popular practice by most farmers in Uganda. As a strategy to increase the income level of the poor in the country, the government came up with a programme called Poverty Eradication Action Plan (PEAP) in 1997. To back up the PEAP programme, Plan for Modernization of Agriculture was launched in 2000. This was aimed at improving incomes, reducing food insecurity, creating gainful employment and a good environment for sustainable natural resource management. The act of parliament created a National Agricultural Advisory services (NAADS) in 2001 which was aimed at improving the agricultural extension systems through contracting relevant agricultural related service providers to render these services to the farmer groups as demanded. All these efforts were geared towards the identification of a suitable and sustainable ways through which farmers can be empowered to produce enough for both subsistence and commercialization.

The participation of farmers in this process has been minimal and for this reason most farmers have been trapped in enterprises that seemed promising and turned out to be profitless due to high costs associated with the development of such enterprises. Participatory market research approach by (Best. R. 2003) is essential in guiding farmers' decisions on enterprises that they can best handle. Learning from these past experiences, two farmer research groups were selected to pilot on an approach that calls for farmers' full participation in the research process up to the marketing stage of the selected enterprise. The enterprise selected by these two groups (Wekambe and Katweimukye) is local chicken after a market visit. As the farmers analyzed the collected market information on local chicken and other products found in the market, local chicken was found more profitable and yet they are kept in most parts of the world and have fewer religious and social taboos associated with (Anthony J. Smith 2001).

Materials and Methods

The methods used here to gather farmers' experiences right from the selection of local chicken as an enterprise up to a point where they are marketing

involved a combination of many participatory approaches as follows:

Group identification

To be able to successfully scale out the right practices to the whole community, it requires that such practices were innovated and tested with a sample of groups first. In this case, a number of groups were visited and their profiles got, analyzed and Wekambe and Katweimukye in Masindi district in the mid western part of Uganda came out as the best groups to test these participatory approaches in production for the market. These farmer groups were selected because the groups were well organized with good leadership structure, members had a shared vision and common objectives that would better the livelihood of the whole community. Using a group with selfish motive of formation limits the rest of the community's opportunity of benefiting from the project or research initiatives.

Community resource mapping

It's often common to find communities sourcing for solutions to their problems from outside their locality and yet remedies to their problems lie within their reach in their community. When Wekambe and Katweimukye groups drew the map of their community, the group members realized that their community had a lot of resources and business opportunities which they had long overlooked. The village map showed that there were swamps which could be used for crop and vegetable production during dry season if they are to fetch more money from agriculture. The map further showed a lot of different grass and tree species plus some areas covered with useful shrubs that were of importance in treating different worms and diseases in livestock. The schools in the community turned out to be a promising market outlet for most beans, maize and sweet potatoes producers in addition to educating their children.

Enterprise selection prior to market visits

Most farmers find it difficult to visit the market before starting production. In that respect therefore, they end up producing products which do not meet the marketing conditions and henceforth loss of marketing opportunity. With all these, farmers will not believe whoever tells them they first need to identify a market before production. Before starting to develop an enterprise it is important that farmers be allowed to

select enterprises but then visit the markets to find out whether whatever they had selected earlier are really on demand and they can meet all the production and supply conditions. It's often surprising to farmers that some times not even one of the previously selected enterprises before visiting the markets is demanded at any one market outlet. From here farmers will now agree with you that market research is important if they are to be cost effective in production because they will have understood the marketing situations and the costs involved. Experience has shown that farmers who conduct market research before enterprise selection make more profits and are capable of realizing whether they are making losses or not as they cost all the inputs to the enterprise.

Selection of market committee for market research

To avoid the above scenario where farmers produce first and look for the market later, Wekambe and Katweimukye farmer research groups were advised to conduct market visits before confirming their decisions on the enterprises selected before the market visit. The group members selected a market research group who went to the market and gathered information on all previously identified options and potential options. The market survey presented more opportunities to the farmers than what they had expected. None of the enterprises selected before going to the market was selected for development.

Enterprise selection

This is done through evaluation of market demand as provided by market information. It is usually advisable for farmers with less experience in marketing to start with enterprises they have some knowledge to go about in its development other than adventuring in a new one that might fail them or irk the costs of production due to needs of hiring expertise. It's against such issues that these groups selected local chicken and have been applying all sorts of skills and knowledge to reduce the cost of production for this highly demanded enterprise by both hotels and households for consumption.

Enterprise development and options taken by farmer groups to reduce the costs of production

Poultry is known as a delicate enterprise due to the many diseases and worms that are attracted to it. As an enterprise it also becomes very difficult for the farmers to feed them due to the many numbers of the stock. However as business oriented people, the

farmers of these groups resorted into use of many low cost techniques to address these problems as presented in the cases below

Feeding of chicken

It always had to convince farmers that the local feeds can indeed do well in egg production and due to the farmers' belief in the formula feeds as the only best feed for chicken at that level as an enterprise, they all went in for the formula feeds. The farmers soon realized that they were making losses due to the high costs of these feeds. They were convinced to do an experiment of different feed regimes to evaluate their effect on egg production. In this experiment, there were three categories of feeds i.e.

Local feeds

The local feeds which comprised of the daily mix of feeds that chicken pick around the compound but supplemented with maize bran -3kgs, cow dung-1kg, table salt-10gms, bones (roasted and pounded)-4 tea spoons, egg shells or snail shells - ½ kg, greens, water and termites

Improved feeds/formula feeds

This had the following items mixed as below

Maize bran -3kgs, cotton seed cake -1kg, fish meal or mukene -1kg, shells ½ kg, mineral lick -2.05 table spoons, premix -1 table spoon, greens and water

Mixed feed (local and improved or formula feeds)

This comprised of the following items

- Maize bran-3kgs, cotton seed cake 1kg
- bone meal (roasted and pounded)
- 4 tea spoons, cowry shells
- ½ kg greens and water

All these feeds were mixed in the different categories and 120gms from it was given to the selected hen every day. The experiment gave the following results (Table 1).

Drawing from the results of the above experiment, it was clear to the farmers that a cheaper option for feeds is the use of locally available feed because their effect on egg production is equally good and yet can be got free of charge except for their labour during the gathering. The local feeds if well selected can perfectly substitute the nutrients from the formula

feeds for example termites can be used to provide proteins instead of buying the fish meal, the locally available bones can be crushed and given to chicken to harden the egg shell and chicken bones instead of purchasing mineral lick, orange fleshed sweet potatoes can be used for vitamin A instead of premix.

Use of local herbs concoctions in the treatment of different chicken diseases and worms

The cost of modern medicines that are used in the treatment of chicken diseases and worms threatened to disrupt development of this enterprise. It is even worse that the available and affordable vaccines need to be stored in the refrigerator and yet the farmers do not have these facilities. For this reason therefore the farmers have resorted into use of local herbs to fight most of the common chicken diseases, worms and fleas as presented in the following cases

Treatment of internal parasites

One of the major internal parasites in chickens is the Caecal worm. It's normally found in the blind end of the caeca. Instead of using piperazine which is very costly, the farmers have resorted into use of a local herb called *Petero* - A local name (Milk weed). Farmers normally administer this by getting two hand full and boil in five litres of water then give to chicken to drink once a week

Treatment of external parasites

These parasites normally include mites, fleas, jiggers, lice and some times ticks. The use of tobacco dust has been very successful in controlling these external parasites. 1 kg of tobacco dust is mixed with 20 litres of water and chicken dipped in one by one. In the poultry house, it's normally advised that farmers keep on changing the litters every month and the fresh ones to be put should be mixed with tobacco dust.

Newcastle disease

Two hand full of Coral bush (*Jatropha multifida* : Belongs to the family of Euphorbiaceae) is boiled in 10 litres of water. This becomes too concentrated that needs to be diluted by mixing one mug with 20 litres of water and chickens are given to drink any amount for five consecutive days. This same treatment has also been successful in the treatment of respiratory infections such as infectious bronchitis and aloe vera in the treatment of Fowl typhoid

Conclusion

Farmers can benefit from their enterprises if they select the one that has ready markets and high demand. Once this is done then supporting institutions working with these farmers should facilitate a process of enterprise development which is cost effective. This can be done by exploring alternative ways of doing the same thing but at a cheaper cost.

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Table1. The effect of different feed regimes on egg production

Farmer	Feed type	Duration	Number of eggs laid before	Number of eggs laid during experimenting time
A	Local feeds	1month	20-25	36
B	Improved or formula feeds	1month	10 -15	30
C	Mixed feed	1month	10 - 13	16