THE IMPORTANCE OF OPINION LEADERS IN AGRICULTURAL PRODUCTION AMONG MALE AND FEMALE FARMERS OF KASENGE PARISH IN THE MUKONO DISTRICT OF UGANDA

J. Adupa[1] and G.H Düvel[2]

ABSTRACT

The paper makes an assessment of the importance of opinion leaders in farming in three rural villages of Uganda. The basic premise is that peasant farmers in Uganda, particularly the women farmers do not have adequate access to extension services due to, amongst others, the wide change agent to client ratio. In view of these problems, the role of opinion leaders is important and justifies being investigated. Using different ways of assessment this paper compares opinion leaders, who were sometimes referred to as fellow farmers, with other sources of information. The fellow farmer is identified to be a relatively more important source of information than the radio and the extension agent for both the male and female farmers. The female farmers were found to attach relatively more importance to the male opinion leader than the female opinion leader.

1. INTRODUCTION: THE PROBLEM

The agricultural extension service has not been effective in reaching the rural farmers with innovations and technology. The situation is even worse among the women farmers who form the active majority of the many farming populations in Africa. Some of the major problems that have contributed to this scenario include inadequate accessibility to extension services, gender insensitivity in planning extension delivery strategies and very wide extension agent/client ratios.

Extension has served the larger, wealthier and motivated farmers, thus tending to focus their client contact on innovators and early adopters in the hope that they will pass this information on in a 'trickle down' process to the rest of the community. Unfortunately, indications are that knowledge does not easily trickle down to peasants. Even if incentives abound for extension staff to increase their input, the very wide extension agent/client ratio in

[1] *M.Sc. Student in the Department of Agricultural Economics, Extension and Rural Development, University of Pretoria.*

[2] *Professor of Extension and Director of the South African Institute for Agricultural Extension, University of Pretoria, 0002, Pretoria.*

Uganda makes it difficult. This situation has been further aggravated by the public service reform, which saw over 20% of the extension staff retrenched.

In view of the aforesaid, it is a major concern that alternative means be explored to bridge the communication gap. This could be achieved by focusing communication messages on certain influential individuals with the hope that their influence will come to bear in the further diffusion to and influence of the other members of the target audience (Düvel, 1996). This is especially called for when wide extension/client ratio makes it difficult to reach the larger target community.

The two-step and multi-step flow of communication theory, implies a key role for opinion leaders. Van den Ban & Hawkins (1988) underscore the important function that opinion leaders fulfil in the diffusion process as that of passing on information from outside the group; interpreting outside information on the basis of own experience; setting an example for others to follow; legitimising or rejecting possible changes and having an influence in changing group norms. This implies that opinion leaders play a crucial role in not merely relaying information, but also in the endorsement and legitimisation of new ideas they want to have adopted. Rogers (1983) believes that diffusion campaigns are likely to succeed when opinion leaders are mobilised. He further maintains that the change agents' success is positively related to the extent that they work through opinion leaders. Hence, it could be argued that opinion leaders might hasten the rate of diffusion, facilitate economy of effort, ensure that fewer resources are used and rapidly multiply the efforts of change agents.

In spite of the eminent logic and obvious rationale behind such opinion leader led strategies there has, as yet been little diffusion research designed to determine the relative contribution of opinion leaders (Rogers, 1983). In recent years there have been isolated studies casting doubt on the real impact of opinion leaders (Lipton & Longhurst, 1985, Parent & Lovejoy, 1987), but research by Düvel (1996) seems to indicate that this may be attributed to the incorrect identification of opinion leaders. In Uganda, where opinion leadership has for the reasons already mentioned, tremendous potential, this phenomenon has received little attention.

In the light of the low current impact of extension in Uganda and the potential increase thereof through the involvement of opinion leaders, this paper explores the occurrence and importance of opinion leadership among both genders in a rural agricultural setting in Uganda. The hypothetical assumption is that opinion leaders form an important part of the rural

communication structure and that the farmers depend more on them for advice and information than on the conventional channels of communication.

2. RESEARCH METHODOLOGY

For reasons of practical accessibility, Kasenge parish in Mukono district of Uganda was selected as the survey area. Mukono district, with average land holding of 0.5 ha per family, has 50 345 sq. km of its total land area under cultivation. Agriculture is the main economic activity carried out by estimated 191 057 farm families in the district. The majority of the 824,604 people of Mukono, consisting of 49.8 percent and 50.2 percent men and women respectively, live in rural areas. They cultivate a variety of crops such as coffee, bananas, sweet potatoes, cassava, maize, beans and horticultural crops. Cattle, chicken, goats and pigs dominate the livestock enterprises (National Agricultural Research Organisation, 1996).

Only 24.7 percent (47 230) of the farm families of Mukono are directly served by the public agricultural extension service. There are 1 312 contact farmers and 74 contact groups served by only 84 field extension workers for the entire district, this brings the extension agent/client ratio for the district to 1:2 274. This is a clear indication that the majority of the farmers in the district do not have adequate access to agricultural extension services (National Agricultural Research Organisation, 1996).

From the twelve villages of Kasenge parish with approximately 1,500 households, a sample of three villages of Buligobe, Kapeke and Luwunga was selected to constitute the study site. This selection was based on the consideration that the villages represent a typical agricultural situation of the district. The three villages have a total of 434 households with the following distributions: Buligobe village 192, Kapeke 144 and Luwunga 98. A random sampling procedure with probability proportional to size was used to select a sample of 100 households from a previously drawn up list of household heads in the villages. The sample size was dictated by available research resources and ultimately consisted of 44 households from Buligobe, 33 from Kapeke and 23 from Luwunga.

Data was collected through personal interviews by means of a questionnaire containing structured questions with coded responses. The four sections of the questionnaire dealt with respondents' personal data, particulars of their household activities and their sources of information. As far as fellow farmers are concerned, respondents were requested to nominate, within different enterprises, those individuals that they would consult, those that they actually

consulted and those they regarded as knowledgeable. The importance of the information sources was established by the rank order in which respondents placed what they regarded to be the three most important information sources, as well as by their judgement of the use frequency. The SPSS/PC+ Version 4 Program was used for data analysis involving frequency distributions, percentages, weighted averages, Chi-square analysis and variance analysis.

3. RESULTS

The measurement of the importance of opinion leaders as a source of influence and information is essentially dependent on respondent's reflection and subjective perception and assessment, and cannot be measured objectively.

One measure of the importance of opinion leaders, is an assessment relative to other sources. This was obtained by requesting respondents to identify out of a list of alternatives the three most important sources and to rank them in order of importance. These findings are summarised in Table 1.

Table 1: Respondents' ranking of what they perceived to be the most important sources of information

Information Source	No. and percentage of nominations received per source						Total	
	First		Second		Third			
	N	%	n	%	n	%	N	%
Extension Agent	46	22.3	49	24.3	49	33.3	144	25.9
Research Station	1	0.5	5	2.5	10	6.8	16	2.9
Radio	67	32.5	62	30.7	45	30.6	174	31.4
Newspapers	-	-	5	2.5	2	1.4	7	1.3
Church	-	-	1	0.5	3	2.1	4	0.7
Fellow Farmer	92	44.7	80	39.6	38	25.9	210	37.8
Total	**206**	**100**	**202**	**100**	**147**	**100**	**555**	**100**

The findings summarised in Table 1 show that the three most important sources are the fellow farmer, radio and extension agent. Their importance is emphasised by the fact that 95.1 percent of all nominations for the first three positions was for one of these three sources. As the most important source the fellow farmer received 46 percent of the nominations as opposed to the 31 percent for the radio and extension agent (23 %). As far as the second most

important source is concerned, the distribution of nominations is similar i.e. 40.8 percent for the fellow farmer, 34.2 percent for radio and 25 percent extension agent. These comparisons clearly show that fellow farmers are judged by respondents to be their most important source of information. Further evidence of this is provided by the chi²-value ($Chi^2 = 11.78$, df = 4, p = 0.019) which indicates at significant differences between the three most important sources regarding their importance rating.

A further impression of the importance of opinion leaders or fellow farmers relative to the other sources can be gained from the weighted percentages. These were calculated by allocating a weight of three (3) for the highest ranking, two (2) for the second highest ranking and one (1) for the third highest ranking, and were then compared on a percentage basis to get a holistic picture of the relative importance of the three sources of information. The findings are summarised in Fig. 1.

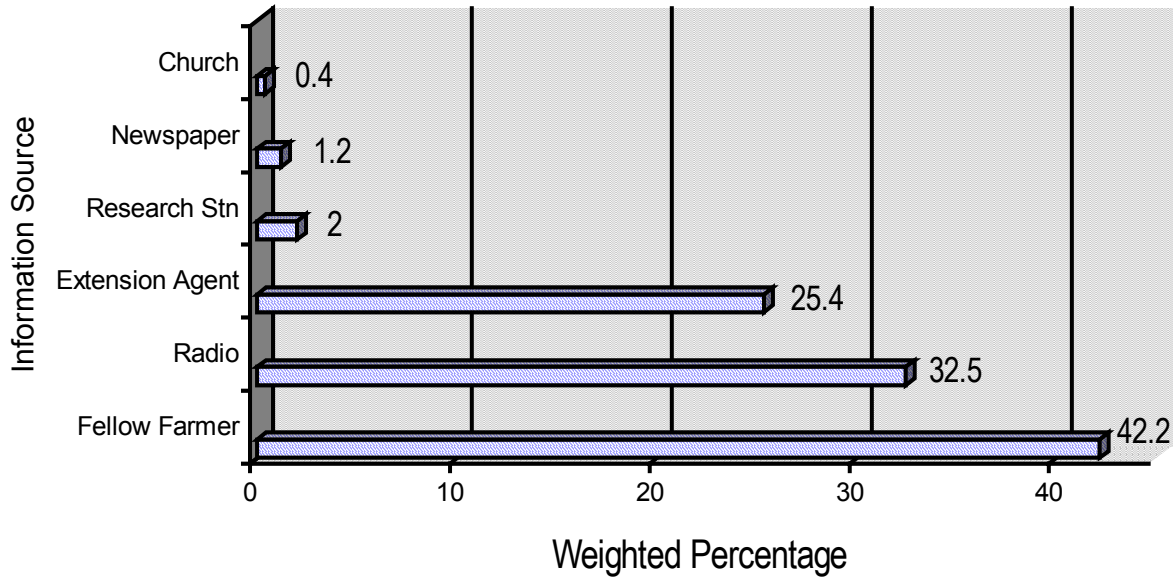

Figure 1: A comparison of the most important sources of information based on weightings according to the respondent's importance rank order

The results show that fellow farmers are the most important source, receiving a ranking of 42.2 percent, followed by the radio, which received 32.5 percent and the extension agent 25.4 percent, while the remaining sources together receive a mere 3.6 percent. The clear dominance of the fellow farmer, the radio and the Extension agent over the other sources justifies that the latter be ignored in further analyses and discussions.

Having established that in the general the fellow farmers are the most important source of information for farmers, the question arises as to whether this applies to both male and female farmers. This comparison is made in Table 2.

Table 2: Importance ranking of the three sources of information by male and female respondents

	Gender of Respondent	No. and Percentage Nominations			Weighted Total*	Weighted %
		Most important	2nd most impor-tant	3rd most impor-tant		
Extension Agent	Male	27 6%	28 7%	29 3%	166	24.7 %
	Female	19 23.8 %	21 25.6 %	20 38.5 %	119	26.1 %
Radio	Male	47 37.5%	36 33.0%	23 28.7%	236	35.1 %
	Female	20 25 %	26 31.7 %	22 42.3 %	134	29.4 %
Fellow Farmer	Male	51 40.8 %	45 41.3 %	28 35.0 %	271	40.3 %
	Female	41 51.2 %	35 42.7 %	10 19.2 %	203	44.5 %
Total	**Male** **Female**	**125** **80**	**109** **82**	**80** **52**	**673** **456**	

* Weighted Total: The sum of number of respondents in the first, second and third rank order multiplied by rank weights 3, 2 and 1 respectively.

Male: $Chi^2 = 5.4259$, df = 4, p = 0.2463
Female: $Chi^2 = 13.85$, df = 4, p = 0.0078

The results show that the pattern of ranking by the male and female respondents is similar. A difference lies in the fact that the female farmers seem to attach relatively more importance to the fellow farmer than the male farmers do. This is concluded from the fact that the fellow farmer was rated by 51.2 percent of the female farmers as the most important source, while the percentage in the case of male farmers is only 40.8 percent. The weighted percentages also reflect this difference and indicate that the radio is perceived to be relatively more important for male farmers (35.1%) than for female farmers (29.4%).

The above assessment is based on a comparison over all the farming enterprises. In Fig. 2 an analysis is given of the relative importance of the sources within the different enterprises.

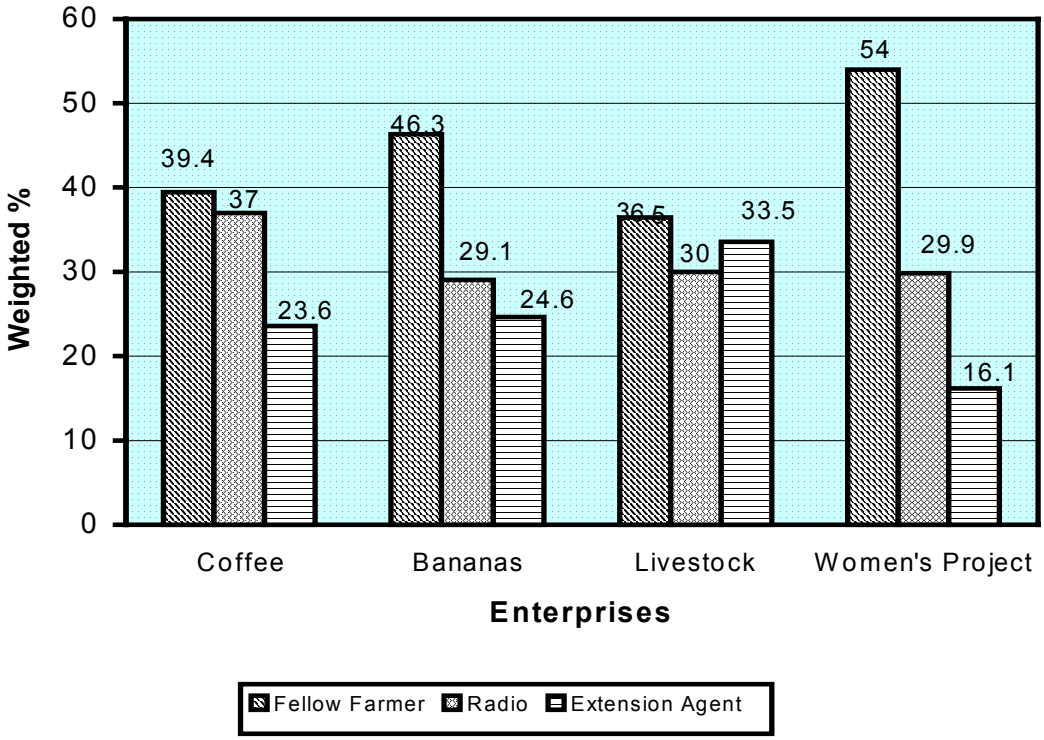

Figure 2: A comparison of the most important sources of information based on weightings by the respondents within selected enterprises

The general pattern of the comparative importance of the different information sources within the various enterprises is similar (Fig. 2). In all case the fellow farmer is the most important information source, although this source is significantly more important in banana production and in the income generating projects run by the women farmers. The extension agent is the third most important information source after the fellow farmer and the radio, except in the case of livestock production where he/she is almost as important as the fellow farmers.

Another indication of the importance of the sources of information is the frequency with which they are used. The relative importance of opinion leaders was deduced from the comparison of the frequencies with which respondents reported to have used the three information sources. Figure 3 summarises the findings, which show that the radio appears to be slightly more frequently used than the fellow farmers are. In the general, the average

frequency with which the radio, fellow farmer and extension agent are used is respectively, 87.2, 79.9 and 12.8 times in a year.

The usage pattern, based on frequency, is very similar for male and female farmers. Both of them tend to consult fellow farmers slightly less often than they use the radio. In the case of male farmers, the radio, fellow farmers, and extension agents were used on average 90.9, 81.9, and 15.1 times respectively per year. The female farmers on average used the radio, fellow farmers, and extension agents respectively 82.9, 77.6, and 10.1 times in a year. This means that female farmers make less use of all the information sources, in particular the radio and extension agent.

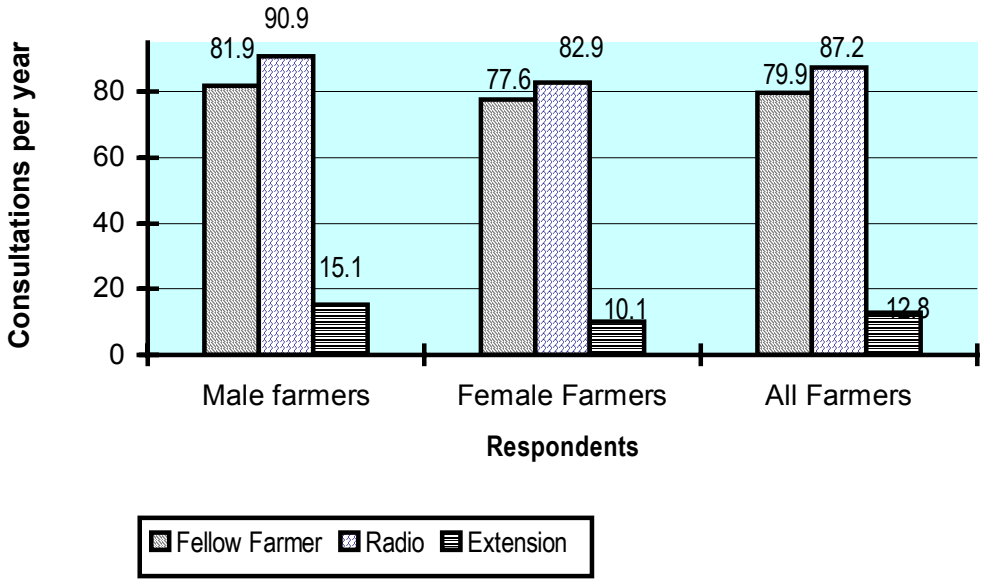

Figure 3: Average frequency with which farmers have used the three important sources of information in a year

A possible explanation for the importance of the radio might lie in the fact that the respondents routinely listen to the weekly farming programs broadcast over the radio. This gives added weight to the importance of fellow farmers because they are used only slightly less frequently than the radio, whilst they are presumably purposely sought and not routinely available like the radio.

The results also show that respondents consulted an extension agent about once a month, which is exceptionally good considering the wide extensionist/farmer ratio in Uganda. This can be attributed to the exceptional nature of the survey area, although the possibility of inflated figures obtained

from the respondents cannot be ruled out. What is noteworthy is that the male farmers consult the extension agent on average about 50 percent more frequently than the female farmers. On a comparative basis these results, therefore, resemble those of the FAO (1985, 1990, 1993) and Ashby, (1981) who report that rural women continue to be neglected by extension services.

The findings leave little doubt as to the importance of opinion leaders for both male and female farmers. However, the question arises as to whether both sexes feature equally prominent as opinion leaders.

According to Fig. 4 female farmers do not feature strongly at all as opinion leaders. Even in the women's projects less than one-third of the opinion leaders consulted are females. In coffee production, which is probably the most sophisticated commercial enterprise, only 0.7 percent of the opinion leaders nominated, were women.

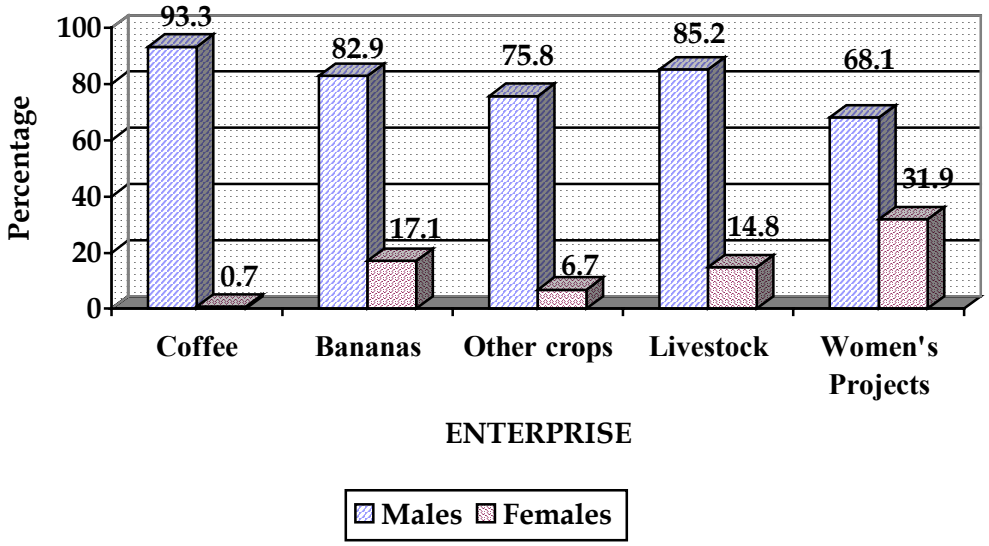

Figure 4: The percentage distribution of male and female opinion leaders nominated by farmers in various enterprises

As far as the quantitative assessment based on the frequency of use is concerned, the situation is very similar. From the findings in Fig. 5 it can be clearly seen that the large majority of opinion leaders consulted are male farmers. Where, on average, male and female farmers had 54.4 consultations per year with male opinion leaders, they had only 5.8 consultations per year with female opinion leaders. The expectation that female farmers would more frequently consult female opinion leaders is also refuted by these findings. Not only do female farmers consult male opinion leaders more frequently

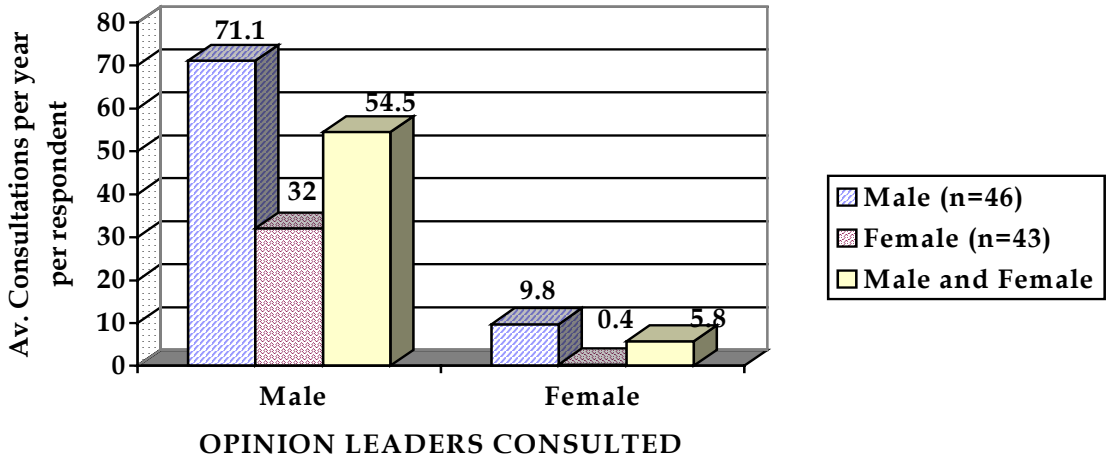

Figure 5: The average number of consultations of male and female opinion leaders by male and female respondents

than female opinion leaders, but on a proportion or percentage basis make even less use of female opinion leaders than the male farmers. 13.8 percent of the consultations of male farmers were with female opinion leaders, whilst only 1.25 percent of female farmers' consultations were with female opinion leaders. These findings may be an indication of the historically marginalised role of women in agriculture.

The importance of opinion leadership is bound to be situation specific and thus vary from situation to situation. The findings presented so far have already shown that the importance attached to opinion leaders as a source of information varies with gender and enterprise. Fig. 6 analyses the variation in the relative importance of opinion leaders in different villages.

Judging from the average ratings summarised in Figure 6, the results show that for the farmers of Luwunga village, the fellow farmer is relatively more important than the radio and extension agents in all the enterprises. In the other two villages (Kapeke and Buligobe) the radio is rated as equally important. The differences regarding the consultations of male and female opinion leaders are more significant, as indicated by Table 3.

Differences between the villages occur in terms of the average number of opinion leaders consulted as well as the number of consultations. The average number of consultations is particularly high in Buligobe (34.7 per respondent per year), while the consultations of female opinion leaders is again comparatively high in Luwunga. Kapeke is again characterised by a relatively

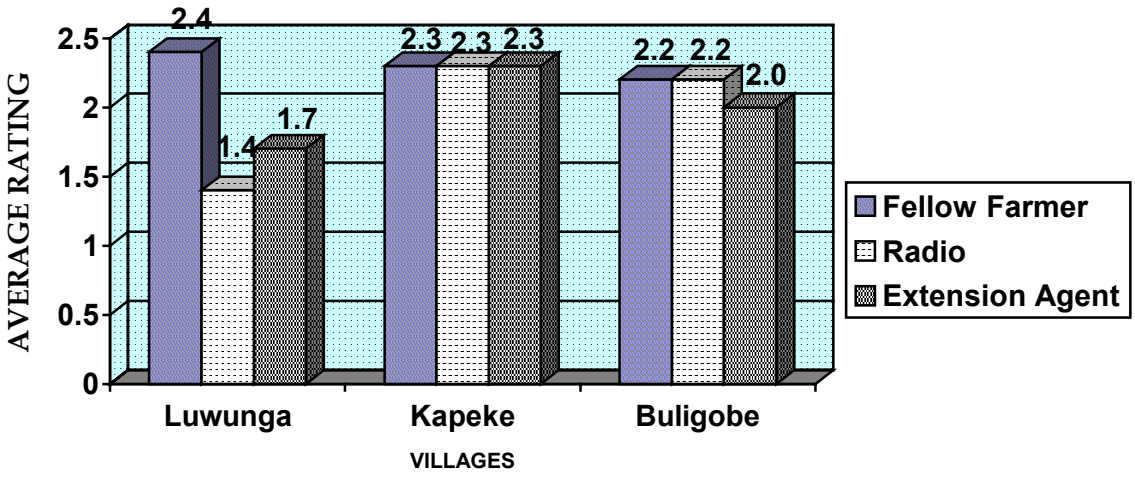

Figure 6: Average importance rating of information sources by respondents in different villages

Table 3: The importance of opinion leadership in different villages

Importance Criteria	Villages		
	Luwunga (n=23)	Kapeke (n=33)	Buligobe (n=44)
Total number of Opinion leaders consulted:			
a) Males	100	97	174
b) Females	16	40	12
Average number of Opinion leaders consulted			
a) Males	4.35	2.9	4.0
b) Females	0.7	1.2	0.3
c) Males and Females	5.04	4.15	4.23
Average number of consultations per year*			
a) Males	30.78	10.3	36.7
b) Females	14.1	9.9	6.8
c) Males and Females	25.8	10.2	34.7

* Average is based on only those respondents who actually nominated opinion leaders.

high number of female opinion leaders, but more particularly, by the low average number of opinion leader consultations (10.2 per respondent per year) which is only 29.4 percent and 39.6 percent respectively of that of Buligobe and Luwunga respectively.

4. CONCLUSION

The findings of the study underpin the importance of opinion leaders. As a source of information they are rated even more important than the other most outstanding sources of information, namely the radio and the extension agent. The pattern varies somewhat between enterprises and according to gender, but only when using a measure of use frequency, does the radio occasionally feature more prominently. For female farmers, the fellow farmer or opinion leader appears to be relatively more important. However, in absolute terms, female farmers make significantly less use of information sources, including opinion leaders. Female farmers make much more use of male opinion leaders than of female opinion leaders. In fact, male farmers consult the relatively few female opinion leaders significantly more than their female counterparts do.

These findings leave little doubt as to the appropriateness of extension strategies focused on or involving opinion leaders. The fact that female farmers hardly feature as opinion leaders, is probably an indication or a result of their historic marginalisation in agriculture, especially as far as decision-making and as target population is concerned. Their increased involvement and participation is bound to change this. In the meantime indications are that information can reach them through the male opinion leaders who appear to be accessible.

The situational differences found in this study regarding the importance of opinion leaders is a clear warning against the extrapolation of these findings beyond the survey area in Uganda and calls for more research to verify these findings.

REFERENCES

ASHBY, J.A., 1981. New models for agricultural research and extension: The need to integrate women. In B.C. Lewis, ed. *Invisible Farmers : Women and the Crisis in Agriculture*. Washington D.C. USAID.

DÜVEL, G.H., 1996. The role of competence in the identification and functioning of opinion leaders. *SA Jnl of Agric Ext.,* 25:18-28.

FAO, 1985. Women in Agricultural Production. *Women in Agriculture, No 4.* Rome.

FAO, 1990. *Report on the global consultation of agricultural extension*. 4-6 December, 1989. Rome.

FAO, 1993. *Agricultural extension and farm women in the 1980's.* FAO Publication, Rome.

LIPTON, M. & LONGHURST, R., 1985. Modern Varieties. International Agricultural Research and the Poor. Washington: World Bank, Consultative Group on International Agricultural Research. Study Paper 2.

PARENT, F.D. & LOVEJOY, S.B., 1987. Communication Strategy: Does the two-step still work? *ACE Quarterly,* 1:5-7.

NATIONAL AGRICULTURAL RESEARCH ORGANISATION, 1996. PRA-Training And Survey In Mukono District Of Uganda, Entebbe.

ROGERS, E.M., 1983. *Diffusion of innovations.* 3rd. ed. The Free Press. New York.

VAN DEN BAN & HAWKINS, H.S., 1988. *Agricultural extension*. Longman Scientific Technology.