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Perceived Effects of Faming-Related Health Problems of Farmers' Productivity in Yewa North Area of Ogun State, Nigeria

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Abstract: This study investigated the perceived effects of farming related health problems on farmers' productivity in selected villages in Yewa North Local Government area of Ogun State, Nigeria. The study covered fourteen villages, from which a total of 152 farmers were randomly selected and interviewed using a structured interview schedule. The study revealed that the common farming related health problems among the farmers include: Body itching, general body pain, matchet cut and malaria (*Iba*). The farmers resorted into past experiences (self medication) and visiting health centers in order to solve their health problems. The study revealed that the farmers perceived that the effects of farming related health problems was high ($\bar{x}$ = 3.90) on their productivity in the study area. Specifically, they perceived that body itching suffered during farming activities results in low farm turn out and ultimately on low productivity and that adequate rest should be observed after farming activities, so that it will improve their promptness to work the following day, thereby leaving no space for lapses on their farm work, hence leading to improve productivity. Also, the study showed that most of the farmers agreed that cold fever can result to farmers' death thereby paralyzing their productivity, while improper handling of some chemicals can result to skin rashes which in return reduces time available for farm activities and ultimately lowers farmers' productivity. They also perceived that ineffectiveness, inefficiency and reduced productivity could be as a result of fire burns, inhalation of pollens, insect stings and deep cuts from sharp objects. The study concluded that there were no significant relationships between the effects of farming related health problems and selected personal characteristics of the farmers. Specifically, no relationship exists between perceived effects of farming related health problems and age (χ^2 calculated = 0.811, p>0.05); marital status (χ^2 calculated = 0.532, p>0.05), household size (χ^2 calculated = 0.903, p>0.05) and educational level (χ^2 calculated = 0.519, p>0.05) of the farmers. This is an implication that the effect farming related health problems are not influenced by he selected personal characteristics of farmers. The study therefore, recommended that farmers should be properly educated on personal health care and the type of farming systems that will not endangered their health by extension agents. Also, government should encourage the farmers by providing farming implements that can be hired by farmers to reduce drudgery on their farms at reasonable costs, hence enhancing their productivity without jeopardizing their health.

Key words: Farmers, health, farming-related, problems, productivity, perception, effects

INTRODUCTION

There should be nothing new or surprising in the proposition that rural Africans engage in agricultural and non-agricultural income-generating activities in addition to social responsibilities within their households and farming communities (Onasanya, 2008). However, the more recent debate around rural income diversification is the inherent health problems associated with these activities. Agricultural connections to food and health are meditated by the natural environment, human culture and technological change (Owusu, 1999). The challenge today of how to achieve equitable food production that delivers optimum nutrition for health requires an understanding of the interplay between agriculture and environment, culture, technical capacity and health of its stakeholders.

One of the distinguishing characteristics of agricultural work is that it is carried out in an essentially rural environment, where working and living condition are interwoven. Due to the characteristics of the rural environment and the nature of agricultural works, the differences between the various kinds of agricultural works are far more marked than those between the operations of other productive sector (Olubanjo *et al*., 2002). Working condition will vary from country to

country and among developed and developing countries depending on the working methods; from highly mechanized extensive methods in commercial plantation (Matthews, 2000) to traditional intensive methods small-scale subsistence agriculture (Villalobos, 1989). While, new technologies are being applied in agriculture (Akinbile and Omotara, 2000), small-scale farming in particular is characterized by low levels of technology and high work loads. Primitive hand tools, hoes and ploughs, heavy loads and sustained physical work pose agronomic problems (Ellis, 2000; Sram, 1999). Farm implements and long hours with poor work postures are reported as risk researchers (ILO, 2000) and farmers. These problems are reinforced by poor safety precautions and information (Palis *et al*., 2006). In small scale farming, it is uncommon for farmers and workers to be aware of, let alone protect themselves against the major farming related health problems/occupational hazards (Palis *et al*., 2006).

Onasanya and Onasanya (2006) explained, that farmers do not put on the necessary protective clothing when using chemicals and the necessary equipment are not used because they may be either too expensive or unobtainable. The productions of crops in Nigeria in recent years have been reducing drastically due to a number of factors. These include low yield, inconsistent production pattern, disease incidence and pest attack. Also 94% of Nigeria farmers are small and medium scale farm producers who employ simple hoes and cutlass and depend on cultural method.

While, the conditions of employment and problems of agricultural work are often poorly monitored, there is increasing evidence that agricultural workers face significant farming related health problems. International Labour Organization (2000), recently reported that at least 170,000 workers die each year and 100 million more of the world's 1.3 billion agricultural workers suffer from serious farming related health problems. Some of these health problems includes, incidence of malaria, conjunctivitis, scabies, asthma, chronic cough to mention a few. Whereas, occupational mortality have declined over the 1990's in other dangerous occupations such as mining and construction, those in agriculture have continued to rise (Addo and Ato, 2007). The data reported by Year Book of Labour Statistics (1998) did not really indicated the constitution of the data and it is often reported that there is a paucity of data in some sectors of agriculture to which this study will contribute its quota.

It was the above therefore, that precipitated the intention of assessing the incidence of farming related health problems among farmers in Yewa North Local Government of Ogun State by: Identifying the socio-economic characteristics and agricultural activities of the farmers; ascertaining the common farming-related health problems and their knowledge of these problems; determining the perceived effects of farming related problems on farmers productivity and precautionary measures adopted by the farmers.

MATERIALS AND METHODS

The study was conducted in Yewa North Local Government Area (YNLG) of Ogun State, Nigeria in the year 2008. It has the largest expanse of land with a size of 200,213.5 ha and a population of about 140,848 m. Multi-stage sampling procedure was adopted in selecting villages from over 457 villages in YNLG (NPC, 1991), using picking from the basket without replacement. From the list of these villages, 3% of the total villages were selected making the villages under investigation to be 14. From these selected villages, 5% of the total populations targeted were picked using snow ball approach. The first farmer was identified by investigation and formed the first respondent enumerated. The farmer in turn directs to the next farmer who in turn directs to the next until the required respondents in the village were enumerated. These exercise made the total respondents for the purpose of the study to be 152 farmers. Data collected with the use of interview schedule were subjected to both descriptive and inferential statistics.

The perceived effects of farming-related health problems on farmers' productivity were measured with the use of 5-point likert-type scale, viz: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) to which the respondents were asked to indicate their responses based on the questions on the scale profile. For a negatively worded questions, SA = 1 point, A = 2 points, U = 3 points, D = 4 points and SD = 5 points, while for positively worded questions, SA = 5 points, A = 4 points, U = 3 points, D = 2 points and SD = 1 point. These scores were summed up and collated for each respondent to represent their effects scores. These scores were later categorized as low effects if the score were equal to or less than the mean score and high effects if more than mean score.

RESULTS AND DISCUSSION

The study revealed in Table 1 that majority of the farmers fall within the age range of 21-59 years (82.9%), 84.2% were married and a good number (48.7%) had no formal education. Also, most of the farmers (51.3%) have household size of 6-12 people while 34.3% were not involved in other occupation. Furthermore, most (61.8%) of the farmer's annual income falls between ₦10,000-₦50,000. The study further showed that none of the

Table 1: Distribution of farmers by selected socio-economic characteristics

Selected characteristics	Freq. (%)
Age range	
Below 20 years	4 (2.6)
21-59 years	126 (82.9)
Over 60 years	22 (14.5)
Total	152 (100.0)
Marital status	
Never married	8 (5.4)
Married	128 (84.2)
Married before	16 (10.5)
Total	152 (100.0)
Level of education	
No formal education	74 (48.7)
Primary	50 (32.9)
Secondary	24 (15.8)
Tertiary	4 (2.6)
Total	152 (100.0)
Household size	
1-5 people	74 (48.7)
6-12 people	78 (51.3)
Total	152 (100.0)
Other occupations	
Trading	64 (42.1)
Paid employment (Public)	4 (2.6)
Paid employment (Private)	6 (3.9)
Artisanship/craftsmanship	16 (10.5)
Privative business/contractor	10 (6.6)
No other job	52 (34.3)
Annual Income (₦)	
Less than ₦10,000	16 (10.6)
₦10,000- ₦50,000	94 (61.8)
₦60,000- ₦100,000	28 (18.5)
Above ₦100,000	14 (9.2)
Total	152 (100.0)
Farming experience	
1-10 years	36 (23.9)
11-20 years	48 (31.6)
Above 21 years	68 (44.5)
Total	152 (100.0)
Source of land	
Family	82 (53.9)
Gift	4 (2.6)
Leased	56 (36.8)
Purchased	8 (5.3)
Cooperative	2 (1.3)
Total	152 (100.0)
Type of labour used	
Family Labour	32 (21.1)
Hired Labour	106 (69.7)
Self	14 (9.2)
Total	152 (100.0)

Field survey, 2008; Figures in parentheses are percentages

farmers had farming experience that is less than 1 year as indicated by 44.5% having farming experience of 21 years and above. Also, 53.9% of the farmers acquired their land through heritage (family), while 69.7% were using hired labour on their farm. These findings implies that the farmers were middle aged and are expected to be actively involved in farming activities as corroborated by the findings of Onasanya (2008), Agbelemoge (2003) and Akinbile and Omotara (2000) that posited that farmers in this age range participate in production and processing of agricultural products. Also, these farmers must be experienced enough to be able to handle health problems encountered on their farm. Despite their low level of education, the farmers may have acquired the farming experience over the years and may have been knowledgeable on health matters in respect of farming.

Table 2 showed the distribution of farmers by their involvement in Agricultural activities. It showed that majority of the farmers were mostly involved in cassava production (93.4%) followed by tomatoes production (76.3%), pepper production (69.7%), green vegetables production (69.7%), gari frying (61.8%), cocoa production (59.2%) and yam production (55.3%). It was shown that their involvement and income generated from these activities were high. However, the most significant non-agricultural activities that the farmers were involved in by the farmers is petty trading (26.3%) (Onasanya, 2008; Onasanya and Onasanya, 2006).

Also, Table 3 showed the distribution of farmers by types and frequency of farming related health problems encountered. It revealed that most of the farmers have suffered itching (68.4%), cold fever (46.1%), skin rash (30.3%), foot rot (15.8%), burns (17.1%), body pain (67.1%), bites (53.9%), stings (53.9%), matchet cut (82.9%), loosed grip on trees (22.4%), inhaled pollen (28.9%), overworked (51.3%), stepped on sharp object (53.9%), malaria (*Iba*) (63.2%), conjunctivitis (*Apolo*) (5.3%), bronchitis (*Iko Aya*) (11.8%), chronic cough (11.8%) and tuberculosis (*Iko Eleje*) (9.2%) in the study area. The reported cases of malaria, fever, conjunctivitis and cough was reported by Onasanya (2008) and Ogun State Health Bulletin (2005) as mostly reported health problem in private and public hospitals in the State. The findings are not far fetched from the submission (ILO, 2000) on the impact of pesticides' exposures on farmers' with a resultant reduction of their productivity.

Moreover in Table 4, the distribution of the farmers by their knowledge of farming related health problems on the overall in the study area was high ($\bar{x}$ = 3.88) which implies that most farmers were knowledgeable about the farming related health problems. Also, it can be posited that constant occurrence of these health problems will definitely affects farmers productivity since the number of days of their absence from farming works will be increased especially if the problems occurred at the planting season. This finding was corroborated by the findings of Onasanya (2008) that documented the occurrence of the ailments among farmers in cement producing areas of Ogun State and Ogun State Health Bulletin (2005) on the incidence of malaria, conjunctivitis, scabies, bronchitis and chronic cough among others in Ogun State.

Table 5 further showed that farmers perceived the effects of health problem on their productivity to be high

Table 2: Distribution of farmers by their involvement in agricultural activities (n = 152)

Agricultural activities	Type	Degree of involvement			Degree of income generated			Degree of importance		
	F (%)	H	M	L	H	M	L	H	M	L
Goat rearing	52 (34.2)	22 (42.3)	10 (19.2)	20 (38.5)	20 (38.5)	16 (30.8)	16(30.8)	20 (38.5)	20 (38.5)	12 (23.1)
Sheep rearing	16 (10.5)	8 (50.0)	4 (25.0)	4 (25.0)	12 (75.0)	2 (12.5)	2 (12.5)	10 (62.5)	4 (25.0)	2 (12.5)
Fufu making	44 (28.9)	24 (54.6)	20(45.5)	-	16 (36.4)	24 (54.6)	4 (9.1)	16 (36.4)	26 (59.1)	2 (4.6)
Gari frying	94 (61.8)	58 61.7)	24 (25.5)	2 (2.1)	46 (48.9)	40 (42.6)	8 (8.5)	56 (59.6)	30 (31.9)	8 (8.5)
Pig rearing	10 (6.6)	6 (60.0)	2 (20.0)	2 (20.0)	6 (60.0)	4 (40.0)	-	4 (40.0)	6 (60.0)	-
Rabbit production	4 (2.6)	2 (50.0)	2 (50.0)	-	-	2 (50.0)	2 (50.0)	2 (50.0)	-	2 (50.0)
Table egg production	14 (9.2)	6 (42.9)	2 (14.3)	6 (42.9)	4 (28.6)	-	10 (71.4)	-	2 (14.3)	12 (85.7)
Cockerel production	52 (34.2)	14 (26.9)	16 (30.8)	22 (42.3)	14 (26.9)	24 (46.2)	14 (26.9)	16 (30.8)	18 (34.6)	18 (34.6)
Fishing	20 (13.2)	8 (40.0)	12 (60.0)	-	4 (20.0)	8 (40.0)	8 (40.0)	6 (30.0)	4 (20.0)	10 (50.0)
Cocoa production	90 (59.2)	48 (53.3)	36 (40.0)	6 (6.7)	46 (51.1)	40 (44.4)	4 (4.4)	52 (57.8)	34 (37.8)	4 (4.4)
Kolanut processing	70 (46.1)	30 (42.9)	18 (25.7)	22 (31.4)	24 (34.3)	20 (28.6)	26 (37.1)	32 (45.7)	20 (28.6)	18 (25.7)
Tomatoes production	116 (76.3)	64 (55.2)	2 (1.7)	50 (43.1)	36 (31.0)	56 (48.3)	24 (20.7)	48 (41.4)	52 (44.8)	16 (13.8)
Pepper production	106 (69.7)	38 (35.9)	48 (45.3)	20 (18.9)	32 (30.2)	48 (45.3)	26 (24.5)	28 (26.4)	50 (47.2)	28 (26.4)
Garden egg production	60 (39.5)	12 (20.0)	30 (50.0)	18 (30.0)	4 (6.7)	24 (40.0)	32 (53.3)	2 (3.3)	26 (24.6)	32 (53.3)
Green vegetable production	106 (69.7)	6 (5.7)	40 (37.7)	60 (56.6)	44 (41.5)	32 (30.2)	30 (28.3)	26 (24.6)	52 (49.0)	28 (26.4)
Yam production	84 (55.3)	38 (45.2)	26 (31.0)	20 (23.8)	38 (45.2)	30 (35.7)	16 (19.1)	38 (45.2)	26 (31.0)	20 (23.8)
Cocoa yam production	68 (44.7)	20 (29.4)	16 (23.5)	32 (47.1)	20 (29.4)	14 (20.6)	34 (50.0)	18 (26.5)	18 (26.5)	32 (47.1)
Cassava production	142 (93.4)	118 (83.1)	12 (8.5)	12 (8.5)	110 (77.5)	20 (14.1)	12 (8.5)	100 (70.4)	28 (19.7)	14 (9.9)
Cowpea production	48 (31.6)	14 (29.2)	14 (29.2)	20 (41.7)	8 (16.7)	12 (25.0)	28 (58.3)	12 (25.0)	14 (29.2)	22 (45.8)
Rice production	32 (21.1)	24 (75.0)	2 (6.3)	6 (18.8)	22 (68.8)	2 (6.3)	8 (25.0)	18 (56.3)	2 (6.3)	12 (37.5)

H = High; M = Medium; L = Low, Field survey, 2008, Figures in parentheses are percentages

Table 3: Distribution of farmers by types and frequency of farming related health problems encountered (n = 152)

Health problems	No of farmers affected	Frequency of occurrence			
		Very regularly	Regularly	Occasionally	Seldom
Inching	104 (68.4)	2 (1.9)	4 (3.8)	74 (71.2)	24 (23.1)
Cold fever	70 (46.1)	-	4 (5.7)	40 (57.1)	26 (37.1)
Skin rash	46 (30.3)	2 (4.4)	2 (4.4)	22 (47.8)	16 (34.8)
Foot rot	24 (15.8)	-	2 (8.3)	8 (33.3)	14 (58.3)
Burns	26 (17.1)	-	2 (7.7)	12 (46.2)	12 (46.2)
Body pain	102 (67.1)	2 (2.0)	36 (35.3)	64 (62.8)	10 (9.8)
Bites	82 (53.9)	2 (2.4)	8 (9.8)	46 (56.1)	26 (31.7)
Stings	82 (53.9)	-	10 (12.2)	32 (39.0)	40 (48.8)
Matchet cut	126 (82.9)	4 (3.2)	22 (17.5)	66 (52.4)	34 (27.0)
Fall from trees	34 (22.4)	-	-	18 (52.9)	16 (47.1)
Eating with infected hands	36 (23.7)	2 (5.6)	2 (5.6)	8 (22.2)	4 (11.1)
Inhaling pollen	44 (28.9)	-	4 (9.1)	12 (27.3)	28 (63.6)
Overwork	78 (51.3)	-	12 (15.4)	36 (46.2)	30 (38.5)
Malaria (Iba)	96 (63.2)	-	22 (22.9)	68 (70.8)	6 (6.3)
Conjunctivitis (Apolo)	8 (5.3)	2 (25.0)	2 (25.0)	2 (25.0)	2 (25.0)
Bronchitis (Iko Aya)	18 (11.8)	2 (11.1)	2 (11.1)	2 (11.1)	12 (66.7)
Chronic cough	18 (11.8)	-	-	6 (33.3)	12 (66.7)
Tuberculosis (Iko Eleje)	14 (9.2)	-	-	8 (57.1)	9 (42.9)

Field survey, 2008, Figures in parentheses are percentages

Table 4: Distribution of farmers by their knowledge of farming related health problems (n = 152)

Statements related to knowledge on farming related health problems	SA Freq. (%)	A Freq. (%)	U Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean ($\bar{X}$)
The inhaling of fumes, dust and other chemical compounds from the air may result in health problem to man and livestock	66 (43.4)	64 (42.1)	6 (3.9)	6 (3.9)	10 (6.6)	4.18
Water quality would be better enhanced if farmers discourage and where necessary report community members that pollute water to the appropriate government authorities	50 (32.9)	60 (39.5)	24 (15.8)	8 (5.3)	10 (6.6)	3.95
Washing and dumping of refuse into water ways reduces quality of water consumption for man and livestock	52 (34.2)	74 (48.7)	8 (5.3)	8 (5.3)	10 (6.6)	4.01
Poor hygiene observed by farmers by eating with infected fingers results to all health	38 (25.0)	84 (55.3)	14 (9.2)	10 (6.6)	6 (3.9)	3.99
Food rot may result into delay of farmer's involvement in planting and processing of farm produce in subsequent seasons.	16 (10.5)	86 (56.6)	22 (14.5)	18 (11.8)	10 (6.6)	3.59
Snake, rodent, insects' bites can infect serious injury on man and livestock	30 (19.7)	82 (53.9)	16 (10.5)	12 (7.9)	12 (7.9)	3.77
Wearing boot can prevent matchet cut	42 (27.6)	68 (44.7)	18 (11.8)	16 (10.5)	8 (5.3)	3.79
Farmers falling from trees can put an end to his farming activities	50 (32.9)	62(40.8)	20 (13.2)	18 (11.5)	2 (1.3)	3.92
Farmers breakdown can result from over working	36 (23.7)	76 (50.0)	18 (11.2)	12 (7.9)	10 (6.6)	3.76
Grand Mean ($\bar{X}$) of farmers' level of agreement						3.88

SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree. Field survey, 2008, Figures in parentheses are percentages

Table 5: Distribution of farmers by the perceived effects of health problems on their productivity (n = 152)

Perceived effects	SA Freq. (%)	A Freq. (%)	U Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean score ($\bar{X}$)
Body inching can result to farmers inefficient productivity	44 (28.9)	86 (56.6)	12 (7.9)	6 (3.9)	4 (2.6)	4.04
Farmers can enhance their productivity when adequate rest in observed	28 (18.4)	96 (63.2)	12 (7.9)	14 (9.2)	2 (1.3)	3.87
Cold fever can result to farmers death thereby paralyzing their productivity	30 (19.7)	88 (57.9)	14 (9.2)	14 (9.2)	6 (3.9)	3.79
Improper handling of some chemicals can result to skin rashes which in return reduces time available for farm activities and ultimately lowers farmers' productivity	42 (27.6)	74 (48.7)	8 (5.3)	22 (14.5)	6 (3.9)	3.80
Farmers can avoid burns by fire or hot iron by keeping his environment clean thereby leading to increase in farmers' productivity when he is healthy	34 (22.3)	96 (63.2)	6 (3.9)	8 (5.3)	8 (5.3)	3.89
Body pain experienced by farmers can result to low productivity when he is unable to give the required time to his farming activities.	44 (28.9)	78 (51.3)	20 (13.2)	6 (3.9)	4 (2.6)	3.99
Stings of some insects can results into ineffectiveness and inefficiency of farmers and hence is productivity	46 (30.2)	78 (51.3)	12 (7.9)	10 (6.6)	6 (3.9)	3.96
Inhaling of some pollen can result to discomfort to man and livestocks thereby lowering productivity of farmers	42 (27.6)	72 (47.4)	22 (14.5)	14 (9.2)	2 (1.3)	3.89
Stepping on sharp object by farmers can hinder farming activities, hence reduced farmers productivity	46(30.2)	72 (47.4)	14 (9.2)	8 (5.3)	12 (7.9)	3.85
Grand Mean ($\bar{X}$) of farmers' level of agreement with the effects of health problems						3.90

SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree, Field survey, 2008. Figures in parentheses are percentages

Table 6: Distribution of farmers by level of effects of farming related health problems on their productivity (n = 152)

Level of effects	Frequency	(%)
Low Effects	60	39.5
High Effects	92	60.5
Total	152	100.0

Field survey, 2008

($\bar{X}$ = 3.90) in the study area. However, the following assertions were drawn from the level of farmers' agreement:

- Body itching suffered during farming activities results in low farm turn out and ultimately on low productivity (85.5%).
- If adequate rest is observed after farming activities, it will in turn improve their promptness to work the following day, thereby leaving no space for lapses on the farm work, hence leading to improve productivity (81.6%).
- Most of the farmers agreed that cold fever can result to farmers' death thereby paralyzing their productivity (77.6%) and improper handling of some chemicals can result to skin rashes which in return reduces time available for farm activities and ultimately lowers farmers' productivity (76.3%).
- Also, farmers can avoid burns by fire or hot iron by keeping his environment clean thereby leading to increase in farmers' productivity when he is healthy (85.5%). When this is ensured, farmers will experienced less body pain which can results to low productivity when he is unable to give the required time to his farming activities (80.2%).
- It was agreed by 81.5% and 75.0% of the farmers that stings of some insects can result in ineffectiveness, inefficiency and reduced productivity, while inhaling of some pollen can cause discomfort to man and livestock thereby lowering productivity of farmers, respectively.
- Finally, 77.6% of the farmers agreed that stepping on sharp objects can hinder farming activities, hence reduced productivity.

Overall, the perceived effects of farming related health problems was high ($\bar{x}$ = 3.90) on the farmers' productivity in the study area (Table 6). While Onasanya (2008), reported a negative effect of cement production activities and consequential environmental problems on farmers' crop yield, this study reported a negative effect on farmers' productivity. So, it was believed that farming-related problems have effects on farmers' productivity as majority (60.5%) of the farmers are highly affected by the farming related health problem, while the effects are low on 39.5% of the farmers. This implies that the farmers will not be able to work efficiently and thereby production will decrease as well as their income.

The findings revealed further in Table 7 that among the precautionary measures adopted by farmers to prevent health problems or reduce its occurrence, it was discovered that all farmers (100.0%) prune pointed branches, make fire trace round their farm, cut trees/sticks deep into the roots to prevent pointed and sharp edges, use herbs to prevent ailment such as malaria and fever, burn trashes of their farm and wash clean their hands with soap before eating. Also, most of the farmers adopted a clean environment that is free of debris and sharp objects (96.1%), using cap (84.2%), holding stick when slashing to prevent matchet cut (84.2%), making signs to indicate were there is a trap (81.6%), keeping chemical away from

Table 7: Distribution of farmers by precautionary measures adopted (n = 152)

Precautionary measures	Frequency	Percentage
Holding stick when slashing to prevent matchet cut	128	84.2
Keeping surrounding clean of debris and sharp objects	146	96.1
Pruning pointed branches	152	100.0
Wearing of field coat/overall	84	55.3
Wearing of rubber boots/old canvas/shoes	66	43.4
Wearing of sandals made from car types	66	43.4
Putting on cap	128	84.2
Washing of hands with soap before eating	152	100.0
Keeping chemical away from food	84	55.3
Storing chemical in special store outside home	84	55.3
Destroy used chemical containers	84	55.3
Burning trashes	152	100.0
Cutting trees/sticks deep into the roots to prevent pointed and sharp edges	152	100.0
Using of herbs to prevents ailment such as malaria and fever	152	100.0
Burning insects and birds nests to prevent insect stings and spread of diseases like bird flu	66	43.4
Consulting oracles and making of scarifies to gods for protections over the family	23	17.1
Making of fire trace round the farm	152	100.0
Wearing of hand gloves	50	32.9
Having first aid box in the farm catchments area	40	26.3
Making signs to indicate were there is a trap	124	81.6
Used of nasal protector when spraying	38	25.9
Use of eye goggles to prevent eye irritation	22	14.5

Field survey, 2008

Table 8: Summary of χ^2 Analysis of effect of farming related health problems and selected socio-economics characteristics of farmers

Variables	χ^2 value	Df	p-value	Remark
Age	1.590	4	0.811	ns
Marital status	2.108	3	0.532	ns
Education level	5.186	3	0.519	ns
Household size	7.946	6	0.903	ns

Field survey, 2008

Table 9: Summary of correlation analysis between effects of farming related health problems and farmers' knowledge of the problems

Variables	N	R	p-value	p-level	Remark
Knowledge	152	0.758	0.000	0.05	S

Field survey, 2008

food (55.3%), storing chemical in special store outside home (55.3%), destroying of used chemical containers (55.3%) and wearing of field coat/overall (55.3%). This findings was in line with that of Onasanya and Onasanya (2006) that reported the precautionary measures adopted by farmers in Emere and Kogi in Nigeria.

The result of χ^2 Analysis of perceived effects of farming related health problems and selected socio-economics characteristics of farmers was shown in Table 8. It showed that there is no significant relationship between the socio-economic characteristics of the farmers and perceived effects of farming related health problems. Therefore, the null hypothesis is accepted and the alternative is rejected. This implies that at p = 0.05, farming related heath problems are not directly related or influenced by farmers' age, marital status, educational level and household size. It could be posited that the effects of the health problems may be as a consequence of personal experience based on farming and carefulness and use of precautionary measures adopted by the farmers. The table further revealed that there is a significant relationship between farmers' knowledge and the effects of farming related health problems on their productivity as submitted by Palis *et al.* (2006) and Opafunso and Apena (2002) that there is the need for more health education programs that tap farmers' belief system and cognitive categories to stress the need for precautions. The null hypothesis is rejected.

As reported in Table 8 that the effects of farming related problems has no significance influence on the personal characteristics of farmers, the findings in Table 9 however, lay credence to the statement by establishing that there exists a significant relationship between farmers' knowledge of the health problems and its effects on their productivity. This implies that the level of awareness of the health problems will go a long way in determining what type of precautionary measures the farmers will adopt so as to keep themselves on their work and ultimately on improving their productivity.

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