

BIBLIOGRAPHY

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ABSTRACT

Majority of the respondents were females, married, middle aged and had formal education. The farms they cultivated were owned and titled land with an area of more than hectare. Their bananas were intercropped with beans, tiger grass and rice. The banana variety grown by the farmers is latundan (cantong) because of its adaptability in the area. The banana production practices included the land preparation by clearing the area and dug holes before planting banana suckers. Organic and inorganic fertilizers were applied as basal.

Major problems encountered by the respondents were lack of irrigation, incidence of pest and diseases. In response to their problem. Their suggested solutions were to attendance to seminars, learn new technologies and improve their skills to produce quality bananas to sustain banana production needed by the market.



RESULTS AND DISCUSSION

Socio-economic Profile of the Respondents.

Age. Table 1 shows that majority of the respondents (42%) belonged to the age bracket of 41 to 50 years old; 27% ,from 31 to 42 years old; and only few 4%, belonged to age bracket of 61 to 70 years old. This indicates that majority of the respondents were at their middle ages and had experiences in producing banana production.

Sex. Majority of the respondents were females (67%) while 33% were males. This shows that there was higher participation among females in banana production. As gender issues is concerned.

Civil Status. All the respondents were married (100.00%).Considering that banana production is a family farming activity.

Educational Attainment. All the respondents (100%) had undergone formal education. As shown in the table, majority of them, 58% were able to reach elementary level and 42%, secondary level. This implies that the respondents were literate and can understand the technologies introduced to them.

Land Tenure. As shown in Table 1, most of the respondents (91%) claimed that they owned the land they were tilling. This implies that banana production has relevance as to the sustainability of the farm. The long term production period is related to the tenure on how the farmer operates the farm to sustain production.



Table 1. The socio-economic profile of the respondents

PARTICULAR	NUMBER OF RESPONDENTS	PERCENTAGE (%)
<u>Age</u>		
21-30	4	9
31-40	12	27
41-50	19	42
51-60	8	18
61-70	2	4
TOTAL	45	100
<u>Sex</u>		
Female	30	67
Male	15	33
TOTAL	45	100
<u>Educational Attainment</u>		
Elementary Level	26	58
Secondary Level	19	42
TOTAL	45	100
<u>Land tenure status</u>		
Titled/owned	41	91
Owned tax declaration	4	9
TOTAL	45	100



Production Practices

Other crops planted. There are other crops planted by the respondents as shown in Table 2. It was found out that majority of them (56%) were producing tiger grass; 33%, beans; and 11%, include rice as intercrops for bananas.

Land preparation. All of the respondents cleared the land manually. Sixty four (64%) percent practiced clearing the farm and burning of weeds; 20%, digging of weeds; and 16% also practiced spot clearing the area. All of them cleared the land using bolos, and prepared the land by digging planting holes before the suckers would be planted.

Table 2. Other crops planted by the respondents

CROPS (%)	NUMBER	PERCENTAGE
Tiger grass	25	56
Beans	15	33
Rice	5	11
TOTAL	45	100

Table 3. Respondents practices in land preparation

PARTICULAR	NUMBER	PERCENTAGE (%)
Burning of weeds	29	64
Digging of weeds	9	20
Spot Clearing	7	16
TOTAL	45	100



Source of planting materials. Table 4 shows that 78% of the respondents claimed that they used the suckers from mother plant as next planting materials. They also used it as material for the next planting season. This implies that majority of them were using their own mother plant as source of planting materials.

Varieties of banana produced. All respondents (100%) produced the latundan or (cantong) variety due to its adoptability in the study area.

Fertilizers used. Table 5 shows that the respondents were using inorganic and organic fertilizers. Organic fertilizers like ash (53%) and animal manure (47%) were applied after they dug holes. They used it as basal fertilizer applied before banana suckers are planted. Inorganic fertilizers like triple 14-14-14(78%) and 16-20-0(22%) were applied after the banana suckers were planted to enhance growth and maturity of fruits.

Table 4. Source of planting materials by respondents

SOURCE	NUMBER	PERCENTAGE (%)
Own banana plants	35	78
Co-farmers	18	40

Note: Multiple responses

Table 5. Kind of fertilizer used

FERTILIZERS	NUMBER	PERCENTAGE (%)
<u>Organic Fertilizer</u>		
Ash	24	53
Animals manure	21	47
<u>Inorganic</u>		
14-14-14	35	78
16-20-0	10	22

Note: Multiple responses



Pest and diseases. The respondents encountered the infestation of aphids (67%) and thrips 33%. They attacked bananas during the flowering and bearing stage. Banana leaf spot diseases were mentioned by 58% of the respondents. 42% the banana bunchy top virus (Table 6). The most prevalent diseases were the occurrences of banana leaf spot disease and banana bunchy top virus. Accordingly, these were being observed before the blossom will come out.

Control measure practice. The sixty seven percent (67%) respondents mentioned that they sprayed insecticides/fungicides to control pest and diseases. Others claimed (33%) to use the technology on integrated pest management.

Table 6. Insect pest and diseases encountered by the respondents

PEST AND DISEASE	NUMBER	PERCENTAGE (%)
<u>Insect pest</u>		
Banana aphids	30	67
Banana Flower trips	15	33
<u>Diseases</u>		
Banana leaf spot diseases	26	57
Banana bunchy top virus	19	42

Note: Multiple responses

Table 7. Pest and diseases Controlled method measure used by the respondents

CONTROL MEASURE	FREQUENCY	PERCENTAGE (%)
Spraying pesticides chemical	30	67
Used of integrated pest Management	15	33
Spraying fungicides	30	67
Chemical pruning	15	33

Note: Multiple responses



Problems Encountered by the respondents. Table 8 shows that majority of the respondents (56%) encountered of the prevalence insect pests and diseases. Others mentioned problems on irrigation (20%); few banana clusters (38%); uncontrolled pests and diseases, (33%); and a small size of fruit clusters (29%).

Suggested Solution to problems by respondents.All of the respondents (100%) suggested that they wanted to attend training seminars and workshops on banana production for the development in their skills to produce quality bananas and sustain production needed by the market. Also they wanted to adopt new technologies that can solve their problems on banana production.

Table 8. Problems encountered in production by the respondents

PROBLEMS	FREQUENCY	PERCENTAGE (%)
Prevalence of pest and diseases	25	56
Lacks of irrigation	20	44
No profits due to the		
Uncontrolled diseases and pest	15	33
Few banana clusters	17	38
<u>Small sizes of fruits clusters</u>	13	29

Note: Multiple responses



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study was conducted to identify the socio economic profile of bananaproducers, their production practices, the problems encountered, and the possible solution to the problems encountered by the banana producers in Kamog, Sablan, Benguet.

Majority of the respondents wereengaged in farmingand had formal education.The variety of banana grown was latundan/cantong. The latundan variety was preferred because of its high demand by consumers due to its good eating quality.

On the production practices of banana, farmers prepared the land by burning of weeds, spotclearing, digging holes using grab hoe, appliedorganic fertilizers like animal manure, and ash in the holes as basal application usedbefore the banana suckers planted. Commercial fertilizers were applied after planting. Almost all the respondents were using suckers from mother plants. The respondents applied pesticide to control pest and diseases. Problems encountered by the banana growers were the occurrence of pests such as aphids and thrips, leaf spot and bunchy top virus causes a threat to the banana industry in the area. Lacks of irrigation was the other problem that affects the intercrops planted along with bananas. Respondents suggested solutions to the problems encountered bythe respondents such as toattend training seminars and to adopt new technologies learned. The possible solutions as suggested by farmers mentioned the attendance to training and seminars on banana production. That they are will to adopt the new technologies on banana production.



Conclusions

Based on the findings, the following conclusions were derived:

1. The respondents were at their middle ages; had formal education; had small area cultivated for banana production; and preferred to produce the latundan/ (cantong) variety;
2. Respondents followed common practices in producing the varieties latundan/cantong banana;
3. Respondents had encountered problems like the; incidence of pest and diseases especially on aphids, thrips, leaf spot and bunchy top virus; and
4. The suggested solutions own the respondents were to attain such as; attendance trainings and seminars on banana production technologies.

Recommendations

Based on the conclusions the following recommendations are given:

1. Farmer should learn to diagnose pests and diseases on their of banana by requesting assistance from banana expert to find possible solution to the problems;
2. Integrated pest Management (IPM) that can be conducted through Farmers Field School (FFS) approach that can be conduct with the assistance of the Department of Agriculture Local Unit; and
3. Farmers should find possible technologiesto solve problems in banana production.



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