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LAZA, LORRAINE M. APRIL 2013. Varietal Preferences of Potato Farmers in

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ABSTRACT

The study was conducted to determine the preferred potato varieties and their

varietal characteristics, to identify the reasons for choosing the variety to be planted and

identify problems encountered/experienced by farmers in Sinto, Bauko, Mountain

Province in procuring the preferred potato varieties.

There were 40 respondents who were randomly selected. The respondents were

interviewed using an interview schedule.

The potato varieties preferred by the farmers in Sinto, Bauko, Mountain Province

were Granola, Igorota and Raniag. Majority of the farmers preferred Granola because it

had short maturation and higher marketability than Igorota and Raniag.

According to the farmers, the positive characteristics of Granola as claimed by the

farmers were high resistance to bacterial wilt infection and short maturity period while

negative attributes were; long dormancy period, medium resistance to leaf miner

infestation and medium resistance to late blight infection. The positive characteristic of

Igorota were short dormancy period, high resistance to leaf miner infestation and late blight

infection, high resistance to bacterial wilt infection and had high productivity potentials.

Negative characteristic was its long maturity period. The positive characteristics of Raniag variety were the following; short dormancy period, high resistance to leaf miner infestation and late blight infection and high production. The negative attribute was its long maturity period.

According to the farmers they chose Igorota and Raniag varieties because they were not susceptible to leaf miner, late blight and bacterial wilt; and for Granola because of its marketability.

The problems encountered by farmers in procuring their preferred variety were the following: high price of potato seed tubers from any source, distance of the source of seed tubers to the farms, the condition of the farm to market roads and the availability of tools and equipments to be used like storage facility for seed tubers.



INTRODUCTION

Rationale

Potato (*Solanum tuberosum* L.) is an important agricultural crop in terms of nutritional and economic value. According to NPRCRTC (1998) potato ranks third among the three national key commercial priority crops identified by the Department of Agriculture. It ranks first in the Cordillera Administrative Region followed by coffee and other temperate vegetables. Gonzales *et al.* (2004) reported that Benguet and Mountain Province supplies 74% of the total production, the remaining 26% are sourced from the Island of Mindanao. Bolaquer (2007) also added that there are number of processing and table potato varieties are now available at BSU-NPRCRTC. Furthermore, personal interview with Sim (2012) she mentioned that the varieties grown today are Granola, Ganza, Solibao, Gloria and Igorota in Benguet and Mountain Province.

According to Gonzalez *et al* (2004), farmers do not have the right variety, cultural practices are not appropriate and the art of production has become prohibitive. Thus, to improve the situation, high yielding varieties must be selected and grown to increase yield per unit area. Wag-e (2004) also added that one aspect to consider in selecting certain potato variety is the season in which the variety is to be planted.

Production of the desired potatoes will also help the farmers market their produce, the consumers and processors to avail of locally produced varieties, boost the potato industry, and improve the quality of high land potato produce in the Philippines.



With the forgoing statements, selecting the variety to be planted is crucial for the improvement of the potato industry. Thus, the study aimed to identify preferred potato varieties and varietal characteristics of these potatoes in Sinto, Bauko, Mountain Province.

Statement of the Problem

The study aimed to answer the following questions:

- 1. What are the potato varieties preferred by farmers?
- 2. What are the varietal characteristics preferred by potato farmers?
- 3. What are the reasons of potato farmers for choosing potato varieties to be planted?
- 4. What are the problems encountered/experienced by potato farmers in procuring their preferred potato varieties?

Objectives of the Study

The objectives of the study were the following:

- 1. To identify the varieties preferred by the potato farmers;
- 2. To identify the varietal characteristics preferred by potato farmers;
- 3. To identify the reasons of potato farmers for choosing potato varieties to be planted; and
- 4. To identify the problems experienced/encountered by potato farmers in procuring their preferred potato varieties.



Importance of the Study

Technology like new varieties is one of the considerations in increasing productivity. Knowing the varietal preference of potato farmers in certain areas will help institutions like NPRCRTC, BSU and other institutions working on potato varietal development in determining the varieties which they will enhance for a better performance which will in turn help farmers in their production through better productivity, less susceptibility to pests and diseases and short maturity. The results of this study would serve as reference to students and other researches.

Scope and Delimitation of the Study

This study focused on the potato varieties preferred by the farmers and the varietal characteristics preferred by potato farmers, the reason for choosing the certain variety, and the problems encountered by the potato farmers in Sinto, Bauko, Mountain Province in procuring their preferred variety.



REVIEW OF LITERATURE

Potato Variety

Botangen *et al.* (1998) claimed that there are various varieties being planted by Benguet farmers. Granola is planted by 96% of potato farmers. Granola variety has two type; short growing type and tall or longer-maturing type. Also grown is BSUPo4 popularly known as LBR or Igorota, by 20% of the farmers .Sante or Smite, 5%; Famoso 46% and BR 4% other varieties tried and still being grown by few farmers includes Atlantic, Agria, Lemhi, Montanosa, Dalisay and Univita.

Ba-a (2002), noted that Granola, Igorota, and Raniag gave higher yield than other varieties planted by the farmers of Abiang, Atok, Benguet. The good yielding performance of the varieties varies from each other. Among the three varieties evaluated, Igorota has the highest return on investment (ROI).

Preferred Potato Variety

During the 1980's, potato farmers in Benguet and Mountain Province preferred the old cultivars such as Chonchita and Greta because of their resistance to late blight and slow degeneration rate. Other recommended varieties include Cosima, Granola, Fina, and Red Pontiak because of their wide range of adaptability to the region condition (HARRDEC, 1982) as cited by (Bay-an 2004).

At present, the cultivar Granola is grown mostly by farmers in Benguet. This cultivar is adapted to wet and dry cropping seasons under warm and cold conditions. This variety as reported by Ayangdan (1998) has been with the farmers for 15 cropping seasons.



However, new selections, I-1085 (PO₄) and LBR I-5 (BSUPO₃ or Igorota) are recommended for the highlands. I-1085 is resistant to late blight and suitable for French fries processing. The selection LBR 1-5 is the first highland potato variety entirely developed through hybridization and selection in the Philippines. It was further stated that it is resistant to late blight and of vigorous plant type, suitable for fresh consumption (HARRDEC, 1996).

Balaodan (2004) observe that under Madaymen, Kibungan Benguet condition, Igorota had a better performance in terms of the production of extra large and jumbo-sized tubers than Granola. On the other hand, Granola produces greater volume of non-marketable produce. However, Granola is still preferred in Benguet because of its adaptability to wet and dry cropping season and its short maturity period (75-90 days).

Varietal Evaluation and Selection

Balaso (2001) stated that the first decision in planting potato is to know the best variety to plant. For maximum production, the best variety that is adapted to the locality should be selected. Excellent cultural management practices may not compensate for a poor choice of variety. Using the right variety ensure high yield and better quality of produce.

Using the right variety ensures high yield and better quality of produce. In planting the first decision is to know the best variety that is adapted to the locality to have a profitable production (HARRDEC, 1996).



Bautista and Mabesa (1977) as cited by Balawen (2012) said that in selection, the variety should be high yielding and pest and diseases resistance, and early maturity so that production would entail less expense.

Characteristics of Potato Varieties

Botangen *et al.* (1998) pointed out that Granola has a positive characteristic such as: heavy and large size tubers, early maturity (type A) Granola, marketable as seed tubers and ware potatoes, slow degeneration and tolerance to drought. However, their negative characteristic is susceptible to late blight. On the other hand, the positive characteristics of Igorota are as follows; large sized tubers, late blight resistant and a processing variety. However, it has also negative characteristics such as: short dormancy and long maturity because it takes four months before harvesting. NPRCRTC (1998) claimed that farmers prefer planting potatoes as their source of income because it is considered as their expertise. The proof that farmers are expert in their own field is because of their long time experience in growing potatoes. Most farmers in Benguet had more than 25 years of experiences in cultivating potato. During their long time experience in cultivating potatoes they have learned and compared the different attributes of various potato varieties. Consequently, it serves as their basis in choosing appropriate potato variety to plant.

Seed Dormancy of Potato

Personal interview Kiswa (2013) states that Granola variety sprouts from 91 to 120 days, Igorota and Raniag sprout from 60 to 90 days. This implies that Granola variety remains dormant longer than Igorota and Raniag. Thus, Raniag and Igorota can be planted



three times in a year, which is more efficient, as compared to Granola which is only possible to be planted twice a year.

Resistance to Blight and Bacterial Wilt

Holman (2000) claimed that the potato late blight inhibit the growth of the potato especially during the development of the tubers. Late blight is caused by *Phythopthora infestans*. The disease can destroy potato field within few days when temperature is low and humidity is high. It may occurs almost everywhere where potatoes are grown and especially in the traditional potato growing areas.

Definition of Terms

<u>Seed dormancy</u>. It is the sprouting of leaves.

<u>Varietal characteristics</u>. It is the particular features of the varieties of crops like high yield, storability, resistance to pest and disease, and others.

<u>Varietal preferences</u>. It is the variety of crops preferred by an individual farmer.

<u>Variety</u>. It is the differences in the same species.



METHODOLOGY

Locale and Time of the Study

The study was conducted in Sinto, Bauko, Mountain Province from October to November 2012.

Respondents of the Study

The respondents of the study were potato farmers in Sinto, Bauko, Mountain Province. Forty potato farmers who were selected randomly served as respondents of the study.

Data Gathering Procedure

The respondents were interviewed using an interview schedule.

Data Gathered

The data gathered were the potato varieties preferred by the potato farmers, the varietal characteristics of potato varieties preferred by the farmers, the reasons for choosing potato varieties to be planted, and the problems encountered or experienced by potato farmers in procuring their preferred variety.

Data Analysis

The data collected were analyzed using frequency and descriptive analysis.



RESULTS AND DISCUSSION

Profile of the Respondents

Table 1 presents the profile of the respondent in terms of age, gender, educational attainment, number of years in farming, tenurial status, major and other source of income.

Age. More of the respondents (37.5%) are adults with age ranging from 42 to 51 years old, 25% consist of 22 to 31 years old, another 25% consist of 32 to 41 years old, 10% for 42 to 51 years old and only 2.5% are above 62 years old. This shows that majority of the respondents are matured.

Gender. Majority (55%) are male while 45% of them are female. This shows that majority of those engaged in farming in Sinto, Bauko, Mountain Province are male.

<u>Educational attainment</u>. Thirty five percent of the respondents finished elementary and high school. Some even finished college and vocational courses. This shows that all the respondents attended formal education.

Number of years in farming. Forty five percent of the respondents have been farming for less than ten years, 25% for 11 to 20 years, 22.5% for 21 to 30 years and only 7.5% have 31 to 40 years of experience in farming. This shows that majority of the potato farmers in Sinto, Bauko, Mountain Province have an experience in farming.

<u>Tenurial status</u>. The study reveals that majority (62%) of the respondents owned the farm, and the rest are rented the farm they are cultivating. Even though they have different tenurial status, it does not affect their varietal preference.

<u>Source of income</u>. The respondent's main source of income is farming. Few of them get income from sources like poultry and livestock raising and, "sari-sari store".



Table 1. Profile of the respondents

PARTICULAR	FREQUENCY	PERCENTAGE
Age		
22 to 31	10	25.0
32 to 41	10	25.0
42 to 51	15	37.5
52 to 61	4	10.0
62 and above	1	2.5
TOTAL	40	100.0
Gender		
Male	22	55
Female	18	45
TOTAL	40	100
Educational attainment		
Elementary	14	35
High School	12	30
Vocational	5	12
College	9	22
TOTAL	40	100
Number of years in farming		
1 to 10 years	18	45
11 to 20 years	10	25
21 to 30 years	9	22
31 to 40 years	3	7
TOTAL	40	100



Table 1. Continued

	PERCENTAGE
25	62
15	38
40	100
40	100
2	5
1	3
	15 40 40 2

Farm Size/Area

Table 2 present the farm size/area cultivated by the respondents. Half of the respondents claimed that they have 1 to 2 hectares of farm lot; 38% have less than 1 hectare and 12% have 3 to 4 hectares. The respondents who owned more than 2 hectares are those families considered rich in the community. The farms of the respondents are also planted with crops like cabbage, carrot, radish, celery, beans, garden peas and bell pepper sequentially according to seasonality and availability of these crops to be planted.



Table 2. Farm size/area

FARM SIZE/AREA	FREQUENCY	PERCENTAGE
less than 1 ha	15	38
1ha to 2 ha	20	50
3ha to 4ha	5	12
TOTAL	40	100

Crops Grown According to Priority

Table 3 presents the crops grown according to priority. According to the respondents, their priority crops in the area are the following: first, potatoes (38.10%) followed cabbages (32.10%), carrots (17.86%) and Chinese cabbage (3.57%). These may be planted interchangeably on any month of the year. The respondent also said that "the demand for potatoes, cabbages and carrots is higher as compared to other vegetables; thus, mass productions of these three commodities will not affect their prices that much which will in turn give a higher return of investment and security of income." This is what the respondents claimed, that is why they consider potatoes, cabbages and carrots as their priority crop.



Table 3. Crops grown according to priority crops

Crops	FREQUENCY	PERCENTAGE
Potato	32	38.10
Cabbage	27	32.14
Chinese cabbage	3	3.57
Carrot	15	17.86
Others	7	8.33

^{*}Multiple responses

Previous Potato Varieties Planted by the Farmers

Table 4 presents the previous potato varieties planted by the farmers. The previous varieties planted are: Granola which accounts for 38.40%, Raniag (27.66%), Igorota (31.91%) and the least is Solibao which accounts for only 2.13%. According to the respondents, Granola is susceptible to late blight during rainy season but farmers still prefer this variety because it has a shorter harvesting period.

Table 4. Previous potato varieties planted by the farmers

VARIETIES	FREQUENCY	PERCENTAGE
Granola	36	38.33
Raniag	26	27.16
Solibao	2	2.13
Igorota	30	32.10

^{*}Multiple Responses



Most Preferred Potato Varieties

Table 5 presents the most preferred potato varieties. The most preferred potato variety of potato farmers is Granola which accounts for 78.05% followed by Igorota with 12.50% and Raniag with 7.5%. The choice of potato farmers in the variety is affected by many factors which may be the seasonality, the resistance/susceptibility to diseases, the yield, days of maturity and the days until maturity or the availability of seed tubers of the preferred potato variety. According to the respondents, they have been planting Granola variety for so many years and it is, so far, the quickest to harvest. One of the respondent said that "even though Granola variety is a little more susceptible to pests and diseases compared to Igorota and Raniag variety, its tubers develop more easily and harvest is a little more secure than of that the Raniag and Igorota variety. In addition because it is early maturing production cost would be lower." This confirms to what Bautista and Mabesa (1997) as cited by Balawen (2012) that in selection, the variety should be early maturing so that production would entails less expense.

Table 5. Most preferred potato varieties

VARIETIES	FREQUENCY	PERCENT
Granola	32	78
Igorota	5	12
Raniag	3	7
TOTAL	40	100



Prices of Potato Seed Tubers

Table 6 presents the prices of seed tubers of preferred potato varieties. During the conduct of the study, Igorota variety is 30 to 35 pesos per kilo, Granola variety is 23 to 30 pesos per kilo, and Raniag variety is 20 to 25 pesos per kilo. Even though Granola variety is more expensive than Raniag variety, more of them prefer it because of its positive attribute that gives an assurance of having a good yield.

Table 6. Prices of most preferred potato varieties

VARIETY	PRICE (per kilo)
Igorota	P30 to 35
Granola	P 23 to 30
Raniag	P 20 to 25

Characteristics of Potato Varieties According to Farmers.

Table 7 presents the different characteristics of three varieties in terms of seed dormancy, resistance to late blight, resistance to leaf miner, resistance to bacterial wilt and days of harvesting according to the farmers.

Seed dormancy. The potato varieties Raniag, Igorota and Granola are all different in terms of seed dormancy or the length of time it takes for the tubers to sprout to be ready for planting. The finding shows that the entire respondent who preferred Granola claimed that this variety sprouts from 91 to 120 days. All of the farmers who plant Raniag claimed that the variety sprout from 60 to 90 days. It is conforms to what Kiswa (2013) stated that Granola variety sprouts from 90 to 120 days and for Raniag 60 to 90 days. On the other



hand, 66.7% of the farmers who plant Igorota variety claimed that the variety sprouts from 60 to 90 days; and 33.33% say that it sprouts from 91 to 120 days.

Resistance to late blight. In the interview conducted results shows that half of the Granola farmers said that their variety has high resistance to late blight, 43.75% said that it is medium resistance and 6.25% mentioned that it has a low resistance to late blight. The claim of farmers is different with what NPRCRTC (1999) finding that Granola variety is susceptible to late blight. Majority (58.3%) of the farmers who plant Igorota variety mentioned that the variety has very high resistance to late blight and 41.7% mentioned that it has high resistance. On the other hand, all of the farmers who plant Raniag variety claimed that the variety has high resistance to late blight.

Resistance to leaf miner. Majority (56.25%) of the respondents claimed that Granola has medium resistance to leaf miner infestation, 34.28% claimed that it is high resistance and 9.38% low resistance. All of the farmers' plant Raniag variety claimed that it is highly resistance to leaf miner infestation. On the other hand, majority (66.7%) of the farmers who plant Igorota varieties claimed that their variety also had a very high resistance and (33.3%) high resistance to leaf miner.

Resistance to bacterial wilt. According to NPRCRTC (1999), Granola is susceptible to diseases like bacterial wilt and late blight. If the plants are infected at 55-65 days after planting the farmer can still get harvest. Majority (68.75%) of the Granola farmers claimed that it is high resistance to late blight despite of it, 25% claimed that it is medium resistance and 6.25% low resistance while half of the farmers who plant Igorota variety claimed that it is highly resistance, another half claimed that it is medium resistance to bacterial wilt.



On the other hand all of the farmers who plant Raniag variety claimed that this variety had high resistance to bacterial wilt.

<u>Days of harvesting</u>. The entire Granola farmer's claimed that Granola could be harvested if it reaches 75 to 90 days. All farmers who planted Igorota variety also claimed that this variety can be harvested after 91 to 120 days, same with Raniag farmers, of them also claimed that their variety could be harvested after 91 to 120 day.

Table 7. Characteristics of potato varieties according to farmers

DADTICI II AD	GRA	NOLA	IGOROTA		RANIAG	
PARTICULAR	F	%	F	%	F	%
Seed dormancy						
60 to 90	0	0	4	66.7	2	100
91 to 120	32	100	2	33.3		
TOTAL	32	100	6	100	2	100
Resistance to late blight						
Very high	0	0	7	58.3	0	0
High	16	50.00	5	41.7	2	100
Medium	14	43.75	0	0	0	0
Low	2	6.25	0	0	0	0
TOTAL	32	100	12	100	2	100
Resistance to leaf miner						
Very high	0	0	4	66.7	0	0
High	11	34.28	2	33.3	2	100
Medium	18	56.25	0	0	0	0
Low	3	9.38	0	0	0	0
TOTAL	32	100	6	100	2	100



Table 7.Continued...

DADTICLU AD	GRA	NOLA	IGO:	ROTA	RAN	IIAG
PARTICULAR	F	%	F	%	F	%
Resistance to bacterial wilt						
Very high	0	0	0	0	0	0
High	22	68.75	1	50	2	100
Medium	8	25.00	1	50	0	0
Low	2	6.25	0	0	0	0
TOTAL	32	100	2	100	2	100
Days of harvesting						
75 to 90	32	100	0	0	0	0
91 to 120	0	0	6	100	2	100
TOTAL	32	100	6	100	2	100

Reasons for Choosing Varieties to be Planted

Table 8 presents the reasons of farmers for choosing varieties to be planted. Majority of the respondents consider the susceptibility of the variety to diseases as the main reason affecting yield which in turn affects their preference. This is followed by the seasonality, marketability of the variety, and the decrease of its productivity over time. Granola, Raniag and Igorota varieties are different in terms of these reasons. In terms of susceptibility to diseases, the farmers, ranked Granola variety as the most susceptible with 42.5%, followed by Raniag variety with 32.5%, and Igorota variety as the least susceptible with 25% of the respondents who claimed it. In terms of seasonality, most farmers claimed that Granola is the most seasonal with 37.5%, followed by Raniag variety with 35%, and Igorota variety with 27.5%. In terms of the marketability of the variety, Granola variety



ranked first with 75%, followed by Igorota variety with 17.5%, and then Raniag variety with 7.5%. Another reason that the farmers mentioned is the decrease of productivity of potato over time. One respondent says, "For many years of my farming experience, I noticed that the productivity of potato decreases over time when we plant it in the same area over and over again but it varies in different varieties I tried". In the data collected in terms of the decrease in productivity over time, majority (57%) of the respondents said that the productivity of Raniag variety decreases productivity over time. This is followed by Granola variety with 22.5%, and then Igorota variety with 20%. This preferred variety has a unique characteristic wherein it has immunity against late blight or other disease because of its early maturity before the onset of attack it has been harvested already.

Table 8.Reasons for choosing varieties to be planted

GRANOLA		IGOR	IGOROTA		IAG	
REASONS -	F	%	F	%	F	%
Susceptible to disease	17	42.5	10	25.0	13	32.5
Seasonality	15	37.5	11	27.5	14	35
Marketability of variety	30	75.0	7	17.5	3	7.5
Decrease productivity	9	22.5	8	20	23	57.5

^{*}Multiple responses



Sources of Seed Tubers

Table 9 presents the source of seed tubers. Majority (39.53%) said they buy it from BSU, 37.21% of them said that they set aside seed tubers during their previous harvest for their next crop and 23.26% said they buy it from their fellow farmers. This implies that the seed tubers they are planting come from different sources which may be from their own previous harvest or from fellow farmers who set aside seed tubers during their previous harvests purposely for sale, and from the Benguet State University through NPRCRTC.

Table 9. Sources of seed tubers

SOURCES	FREQUENCY	PERCENTAGE
BSU	17	39.53
Owned by the farmers	16	37.21
From other farmers	10	23.26

^{*}Multiple responses

Problems Encountered in Procuring Seed Tubers

Table 10 present the problems encountered in procuring their preferred potato varieties. Majority (60%) of the respondents point out that the high price of seed tubers from any source as one of the problems that they encounter in procuring the potato variety that they prefer because it is an addition cost to them. Other factors they pointed out are; the distance of the seller of seed tubers to the farm with 42.5%, their farm to market roads is one way and bumpy with 40%, and the storage facility for seed tubers with 32.5%.



Table 10.Problems encountered in procuring their preferred potato varieties

PROBLEMS	FREQUENCY	PERCENTAGE
High price of seed tubers	24	60
Distance	17	42.5
Condition of the farm roads	16	40
Storage facility for seed tubers	13	32.5

^{*}Multiple responses



SUMMARY, CONCLUSIONS AND RECOMMENDATION

Summary

The study was conducted to determine the varieties preferred by potato farmers the varietal characteristics preferred by the potato farmers, the reasons for choosing potato varieties to be planted, and the problems encountered by the farmers in procuring their preferred variety.

Majority of the respondents are male aged 42 to 51 years old, all of them attended formal education.

The potato varieties planted in the area are Granola, Igorota, Raniag. Majority of the respondents preferred to plant Granola variety because according to the farmers it is susceptible to pest (leaf miner) and disease (late blight and bacterial wilt) and shorter maturity period.

With regards to the characteristics of Granola the farmer claimed that it is resistant to late blight. For Igorota the farmers claimed that it is very high to resistance to late blight and leaf miner. On the other hand Raniag farmers also claimed that it is high resistance to late blight and leaf miner.

Majority of the farmers have the following reasons for choosing potato varieties like susceptible to pest and disease followed by seasonality, marketability of the variety, and the decrease of its productivity over time.

In terms of problem encountered in procuring seed tubers majority of the respondent point out that high price of seed tubers is the main problem, followed by the



distance of the seller of seed tubers to the farm, the conditions of the farm to market road and the storage facility for seeds.

Conclusions

- 1. The potato varieties preferred by the farmers are Granola, Igorota and Raniag.

 Majority of the farmers preferred Granola because it is short maturation and higher marketability than Igorota and Raniag.
- 2. According to the farmers, the positive characteristics of Granola as claimed by the farmers are high resistance to bacterial wilt infection and short maturity period while negative attributes are; long dormancy period, medium resistance to leaf miner infestation and medium resistance to late blight infection. The positive characteristic of Igorota are short dormancy period, high resistance to leaf miner infestation and late blight infection, high resistance to bacterial wilt infection and has high productivity potentials. Negative characteristic is its long maturity period. The positive characteristics of Raniag variety are the following; short dormancy period, high resistance to leaf miner infestation and late blight infection and also as high production and as long maturity period. The negative attribute is its long maturity period.
- 3. According to the farmers they choose Granola because it is marketable. They choose Igorota because it is not susceptible to pest (leaf miner) and disease (late blight and bacterial wilt). Lastly they choose Raniag because it is not susceptible to pest and disease.
- 4. The problems encountered by farmers in procuring their preferred variety are the following: high price of potato seed tubers from any source, distance of the seller of seed



tubers to the farms, the condition of the farm to market roads and the availability of tools and equipments to be used like storage facility for seed tubers.

Recommendation

Based on the conclusion, the following recommendation was given:

- 1. Research institutions should continuously and develop potato varieties with high resistance to pest and diseases; and,
- 2. Farmers, government, NGO and other organization should establish a trading center for potato seed tubers that will serve as a market of seed tubers. In this way, farmers who are willing to buy seed tubers would have easier accession the other hand, it would make it possible for farmers who would like to sell their seed tubers.



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