

BIBLIOGRAPHY

PONCIO, WILCE P. APRIL 2012. Remedial Measures on the Occurrence of Frost Injury in Paoay, Atok, Benguet. Benguet State University, La Trinidad, Benguet.

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ABSTRACT

The study was conducted to determine; the remedial measures during the occurrence of frost bite, their expenses, and the aid they received from the government.

The data and information were gathered from the thirty (30) respondents in Paoay, Atok, Benguet by using an interview schedule. The data gathered were categorized, tabulated and analyzed statistically using purposive random sampling.

The findings showed that majority or sixty percent (60%) of the study revealed that farmers do not have enough resources to use in preventing frost injury. Respondents said that the only remedy is to water their plants manually early in the morning to prevent their crops from wilting due to frost.

Out of thirty (30) respondents, sixty three percent (63%) claimed that they hired laborers to irrigate their plants early in the morning. Labor cost per day ranges from two to three hundred pesos.

Ninety three (93%) of the respondents said that the government assists them by providing seedlings for them by to recoup their loss. Finding also reveals that aside from



seedlings, farmers also received a cavan of rice each. Some respondents also said that the government sent agriculture experts to check their situation.

Based on the findings, the following conclusions are made: Majority of the respondents doesn't have enough resources to protect their crops. All of the respondents spent labor cost ranges from two to three hundred pesos (200 – 300) per day. Food of the laborer is not included. Majority of the respondents received an aid from the government during the occurrence of frost.

As to the recommendations, The Municipal Agriculture Office should closely monitor the temperature trend in the town so that the municipal government could immediately issue an advisory to the farmers once it drops drastically. On the other hand training and seminar of farmers in vulnerable areas, on crop scheduling to avoid frost injury from further affecting their harvest.



RESULTS AND DISCUSSION

General Information of the Respondents

Table 1 presents the general characteristic of the respondents in terms of gender, age, civil status and educational attainment.

Gender. Almost Seventy percent (70%) of the respondents were males. However, females had always been partners to their husband in agricultural production.

Age. The oldest respondent was 69 years old and the youngest was 21 years old. The average age is forty six years old (46 yrs. Old) showing that the respondents are above middle age.

Civil Status. Eighty percent (80%) of the thirty respondents were married while the rest were single. This indicates that farming was the source of livelihood of married respondents.

Educational Attainment. All of the respondents have attended formal Education at varying levels.

Table 1. General characteristic of the respondents

PARTICULAR	NO. OF RESPONDENTS	PERCENTAGE (%)
Gender		
Male	19	63
Female	11	37
Total	30	100



Table 1 continued...

	NO. OF RESPONDENTS	PERCENTAGE (%)
Age		
21 - 30	2	7
31 - 40	4	13
41 - 50	17	57
51 - 60	5	17
61 - 70	2	6
Total	30	100
Civil status		
Single	6	20
Married	24	80
Total	30	100
Educational Attainment		
Elementary	6	20
High school	21	70
College	3	10
Total	30	100

Number of Years in Farming

Table 2 shows that majority or fifty four percent (54 %) of the respondents has been farming for 21 – 30 years, showing the experience of the respondents in Vegetable farming.



Table 2. Number of years in farming

NUMBER OF YEARS IN FARMING	NO. OF RESPONDENTS	PERCENTAGE (%)
1 – 10	2	7
11 – 20	7	23
21 – 30	16	54
31 – 40	4	13
41 – 50	1	3
TOTAL	30	100

Land Tenure Status

Table 3 shows the land tenure status of the respondents, almost all of the respondents owned the lots they are tilling. Only twenty percent (20%) tilled other people's land as tenants.

Materials Used in Preventing Frost injury

Table 4 shows the materials they used in preventing frost. Only forty percent (40%) have their facilities in preventing frost. The rest water their plants manually early in the morning.



Table 3. Land Tenure Status

LAND TENURE STATUS	NO. OF RESPONDENTS	PERCENTAGE (%)
Tenant	6	20
Owner	24	80
TOTAL	30	100

Table 4. Equipment used in Preventing Frost

EQUIPMENT	NO. OF RESPONDENTS	PERCENTAGE (%)
Greenhouse	8	27
Overhead Sprinkler	4	13
None (they water it manually)	18	60
TOTAL	30	100

Type of Vegetables affected by frost bite

Table 5 shows that all of the respondents said that the most affected by frost is Potato, this findings was also collaborated by the Municipal Agriculturist of Atok, Mr. Fred Rufino. Citing as an example its effect last January 2010 was the physical impact on the leaves of potato crops. Its direct effect to the potato tuber is the slowing down of growth as it disturbs the photosynthesis or the process of the plants food production. Followed by Cabbage 26 %, Carrots 23%, Celery 18%. According to the respondents if it was not watered early in the morning the plants would wilt as the sun melts the deposited ice. This was also reported by Sun Star Baguio Last January 2011.



Table 5. Type of vegetables affected by frost bite

TYPE OF VEGETABLE	NO. OF RESPONDENTS	PERCENTAGE (%)
Cabbage	26	87
Carrots	23	78
Celery	18	60
Potato	30	100

*Multiple response

Appearance of vegetables affected by Frost Bite

Table 6 shows the appearances of the vegetables affected by frost bite that was observed by the farmers. All of the respondents observed that the appearance of vegetables affected by frost bite is yellowish. Others (70%) said it was brownish; and fifty percent (57%) observed brownish spots on the leaves. perhaps the appearance will depend on the severity of the frost.

Effect of Frost Bite in Farming

As presented in Table 7. all of the respondents said that frost bite leads to low production. Respondents also added that sometimes it could lead to bankruptcy which they were afraid of. Accordingly vegetable production was their main source of livelihood and crop failure diminished their source of income. This was also reported by Dexter See of Sun Star Baguio (2007).



Labor Expense Incurred as an effect of Frost Bite

Table 8 shows the expense being incurred by the respondents during the occurrence of Frost bite, sixty three percent (63 %) of the respondents claimed that they hire laborers to irrigate their plants early in the morning to prevent crop from wilting. respondents said that water was not a problem because they are getting it from the river.

Table 6. Appearance of Vegetables affected by Frost bite

APPEARANCE	NO. OF RESPONDENTS	PERCENTAGE (%)
Brownish	21	70
Yellowish	30	100
Spots on the leaves	17	57

*Multiple response

Table 7. Effect of Frost Bite in Farming

EFFECT	NO. OF RESPONDENTS	PERCENTAGE (%)
Low production	30	100
Lead to bankruptcy	24	80

*Multiple response

Table 8. Labor Expense incurred as an effect of frost bite

EXPENSES	NO. OF DAYS OF HIRED LABOR	COST OF HIRED LABOR	NO. OF RESPONDENTS	PERCENTAGE (%)
Labor	1	200	4	13
	2	400	7	24
	3	600	19	63
Total			30	100



Type of Assistance Received from the Provincial Government

Table 9 shows the type of assistance received by the farmers during the occurrence of frost bite. Ninety Three percent (93 %) of the respondents said that they were given seedlings for them to recoup their loss. Sixty percent (60 %) said that aside from the planting material they received, they were also given a cavan of rice for each famers. According to the Provincial Agriculture Office, They are not giving financial assistance to the victims of the frost instead they were given planting materials to replace what they loss.

Table 9. The type of assistance received from the Provincial Government

TYPE OF ASSISTANCE	NO. OF RESPONDENTS	PERCENTAGE (%)
They give planting material to the Affected farmers	28	93
They give a cavan of Rice to the Affected farmers	18	60
They sent Agriculture experts to check situation	6	20

* Multiple response



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study was conducted at Barangay Paoy, Atok, Benguet. to determine the remedial measures used by the farmers during the occurrence of frost, their expenses incurred; and the aid received from the government.

The study was conducted in December 2011, an interview schedule was used to gather the needed information. The respondents of the study were the farmers of barangay Paoay. Thirty (30) farmers were chosen using the purposive random sampling.

Majority of the respondents were at the age ranged from forty one to fifty (41 – 50) years old, mostly married and had formal education.

The findings showed that majority or sixty percent (60%) of the study revealed that farmers do not have enough facilities to use in preventing frost injury. respondents said that they water their plants manually early in the morning to prevent their crops from wilting due to frost.

Out of thirty (30) respondents, majority claimed that they hired laborers to irrigate their plants early in the morning. Labor cost per day ranges from two to three hundred pesos.

Most of the respondents said that the government gave them planting materials for them to recoup their loss. Finding also reveals that aside from seedlings, farmers also received a cavan of rice each. Some respondents also said that the government sent agriculture experts to check their situation.



Conclusions

Based on the findings, the following conclusions are made:

1. Majority of the respondents are not equipped to protect their crops from frost bite.
2. The occurrence of frost is an added expense in vegetable farming
3. The government provided assistance during frost.

Recommendations

Based on the conclusions, the following recommendations are formulated:

1. The Municipal Agriculture Office should closely monitor the temperature trend in town so that the municipal government could immediately issue an advisory to the farmers once it drops drastically.
2. Training and seminar of farmers in Vulnerable areas, on crop scheduling to avoid frostbite from further affecting their harvest.



LITERATURE CITED

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