

BIBLIOGRAPHY

BUSIL-AC, BERNADETTE S. OCTOBER. 2012. Role of Women on Vegetable Farming in Dalipey, Bakun, Benguet. Benguet State University La Trinidad Benguet.

Adviser: Jamesly T. Andres, MSc

ABSTRACT

The study was conducted to determine the socio-demographic profile of the respondents in Dalipey; the farm operations performed by women; and the problems encountered by women in performing farm operations. Forty (40) women farmers were randomly selected from the village as respondents of the study.

Respondents had ages ranging from 26 to 60 years old. All the respondents were married; had household size ranging from 6 to 10 family members. Most of the respondents were full time vegetable farmers had main source of income which was farming.

Generally, most respondents engaged in both heavy and light farm activities. They are actively involved in land preparation, fertilizer application, planting, weeding, hilling-up and harvesting activities. They participate in all stages of farming. However, there are some respondents who actively participate in spraying of chemicals, marketing and only few were involved in irrigation since their farms are rain fed irrigated.

The problems encountered by women in performing farm operations were that had felt of empty stomach, head ache, muscle pain, back pain, wounds and stomach ache. These problems exist due to chemical exposure during spraying and fertilizer application. Farm



hazards of women farmers were the result of chemical spill on their back and arms due to leaking sprayers that causes skin problem such as itchiness and burning sensation on their bodies.



RESULTS AND DISCUSSION

This section presents the profile of respondents as to age, civil status, number of family members, number of children studying, number of years in farming, farming status, farm area, educational attainment and economic activity. It also reflects the farm operations performed by women and the problems they encountered in performing farm operations.

Profile of the Respondents

Age bracket. Table 1 shows that the respondents have ages ranging from 26 to 60 years old. The greatest number belonged to 41 to 45 years old (47.5%) followed by 56 to 60 years old (32.5%) and 36 to 40 years old (15%). The marital status showed that 100% of the respondents were married. This implies that they worked together with their husband in performing farm operations.

Number of family members. The greatest number of the respondents had 10 family members (22.5%); 17.5% had 8; 15% had 9 and 7 family members where most of their children helped in the farm during weekends and school vacations. This shows that the household size of the community is big as to compare to the recommended household size which is 5.

Number of years in farming. Result shows that 50% of the respondents claimed that they had seven years of farming experience; 22.5% respondents had 5 years and 15% respondents had 6 years farming experience. All of the respondents claimed to have full time in vegetable farming especially during peak season.



Table 1. Profile of respondents

PROFILE	FREQUENCY	PERCENTAGE
Age bracket		
26-30	1	2.50
31-35	1	2.50
36-40	6	15.00
41-45	19	47.50
46-60	13	32.50
TOTAL	40	100.00
Number of family members		
5	3	7.50
6	5	12.50
7	6	15.00
8	7	17.50
9	6	15.00
10	9	22.50
11	2	5.00
12	2	5.00
TOTAL	40	100.00
Number of years in farming		
4	4	10.00
5	9	22.50
6	6	15.00
7 and above	20	50.00
TOTAL	40	100.00



Table 1 continued...

PROFILE	FREQUENCY	PERCENTAGE
Farm area		
Less than 1 ha	15	37.50
2-3 ha.	13	32.50
3-5 ha.	9	22.50
5 ha and above	3	7.50
TOTAL	40	100.00
Educational attainment		
Elementary	10	25.00
High School	14	35.00
College	8	20.00
Vocational	8	20.00
TOTAL	40	100.00
Economic activity		
Farming	40	100.00
Store keeper	6	15.00
Gold panning	5	12.50

*multiple response

Farm area. The greatest number of the respondents were operating less than 1 hectare (37.5%) followed by 32.5% operating 2 to 3 hectares and 22.5% of respondents operating 3 to 5 hectares. Farmers who are operating less than one hectare considered that the farm area is not enough so they go to the extent of renting other farms outside the village. This indicates that most respondents produce on a small scale basis of farm and



most of their farms are valued possession of families that are passed on from one generation to the next.

Educational attainment. All respondents had gone to school. 35% of them were able to step high school followed by 25% respondents who step elementary and 20% of were able to step college and finished vocational courses. According to the respondents who did not finish their studies, they eventually lost interest to go to school because of financial problems and got married early. Some were lazy because of far distance of the school and prefer to work on the farm.

Economic activity. The table shows that 100% of the respondents mentioned that the main source of their income is farming. They consider farming as an adequate source of income and subsistence. The other sources mentioned were store keeping and gold panning activities.

Farm Operations Performed by Women in Dalipey

The farm operations performed by women in Dalipey, Bakun, Benguet is shown in Table 2. All of the respondents mentioned that they performed fertilizer application, planting, weeding, hilling-up and harvesting during cropping season where in most of the crops grown were cabbage and potato. The farm operations were easy work for them that they can easily manage. According to them, it was a traditional work for women and they accepted and considered as their main responsibility especially during weeding operations where all of the respondents mentioned that weeding is a generalize work for them.



Table 2. Farm operations performed by women

FARM OPERATIONS	FREQUENCY	PERCENTAGE
Land preparation		
Always	35	87.50
Sometimes	5	12.50
TOTAL	40	100.00
Irrigation		
Sometimes	12	30.00
Never	28	70.00
TOTAL	40	100.00
Chemical spray		
Always	25	62.50
Sometimes	10	25.00
Never	5	12.50
TOTAL	40	100.00
Marketing		
Always	35	87.50
Sometimes	5	12.50
TOTAL	40	100.00

During fertilizer application, women do the application of chicken dung to their farms while their husbands were the one carrying the chicken dung from the road to their farm. In harvesting, women do vegetable harvesting while men carry the vegetable crops from the farm to the main road.



Most (87.5%) of the respondents claimed that they always perform land preparation every cropping season. Since they do not use farm tractors to till their land, they hire manpower. However, there are 12.5% of respondents claimed that they involved in land preparation only when their husband cannot till or dig their farm alone specially if they have wide farm area. Some mentioned that they only helped in land preparation if they cannot afford to hire manpower to help them.

Seventy percent (70%) of the respondents mentioned that they never perform irrigation since their farms are rain fed irrigated. Some respondents said that their husband were the one doing the irrigation. On the other hand, 30% of the respondents claimed that they help in irrigation of their crops. When their husbands are not available, women will be the one to irrigate their crops. Almost all of the respondents used sprinkler irrigation to irrigate their crops.

In spraying chemicals, 62.5% of the respondents were actively involved especially to those who have wide farm area and their husbands cannot do the spraying alone. However, there are 25% of the respondents claimed that they only spray if their husbands are not available. While only 12.5% respondents mentioned that they do not involved in spraying since they only had small farm area that their husband can do the spraying alone. According to the respondents, they start to spray their vegetable crops 2 days after planting if their crop is cabbage and at least not less than one month after planting if their crop is potato.

Most (87.5%) of the women respondents claimed that they always involved in marketing since they were the one marketing or selling their vegetable crops to the trading post in La Trinidad, Benguet while 12.5% of the respondents mentioned that sometimes



they were the one marketing their crops. According to the respondents who do not involved in marketing, their husbands were the one marketing and some mentioned that they have their suppliers in the market who were the one marketing their vegetables. Most respondents perform marketing operations assisted by their husbands.

Problems Encountered by Women in Performing Farm Operations

Land preparation. Almost all of the respondents claimed that they experienced pain of empty stomach and back pain (Table 3). Accordingly, the respondents claimed that they were not eating or skip their meals before going to their farm; they just drink a cup of coffee. Therefore, the respondents prioritized their farm activities rather than their health. This habit of the respondents can caused sickness like ulcer without prior notice. Other problems that were stated that 75% of them also mentioned that they experienced muscle and back pain and 62.5% suffer from head ache.

Fertilizer application. The respondents mentioned that they experienced back pain and hunger in performing fertilizer application. Seventy five (75%) of them had stomach ache problems after applying fertilizers and pesticides in their farm because they handled manuring. Therefore, it is recommended to use protective gadgets like gloves but respondents do not use it. They prefer to do manuring with their bare hands. Aside from this, 50% of the respondents also experienced head ache due to chemical exposure and not using protective gadgets in working. Respondents are also at risk to exposure since majority of their house are interspersed with in farming communities.



Table 3. Problems encountered by women

FARM OPERATIONS	FREQUENCY	PERCENTAGE
Land preparation		
Muscle pain	30	75.00
Back pain	40	100.00
Stomach ache	30	75.00
Head ache	25	62.50
Wounds	20	50.00
Hunger	40	100.00
Fertilizer application		
Stomach ache	30	75.00
Head ache	20	50.00
Back pain	40	100.00
Hunger	40	100.00
Planting		
Back pain	40	100.00
Head ache	20	50.00
Hunger	40	100.00
Chemical spray		
Stomach ache	30	75
Head ache	25	62.5
Skin problem	35	87.5
Eye problem	25	62.5
Shoulder pain	40	100

*multiple response



Table 3 continued. .

FARM OPERATIONS	FREQUENCY	PERCENTAGE
Weeding		
Back pain	40	100.00
Hunger	35	87.50
Wounds	40	100.00
Harvesting		
Back pain	40	100.00
Muscle pain	40	100.00
Wounds	20	50.00
Marketing		
Accidents	10	25.00
Bankrupt	20	50.00
Low vegetable price	35	87.50

*multiple response

Planting. Almost all of the respondents claimed that they experienced the feeling of empty stomach and back pain and 50% experienced head ache due to extreme heat for prolonged period during planting of vegetables.

Chemical spray. All respondents use knap sack sprayer with a capacity of 16 liters in spraying their crops and all of them complained of shoulder pain. They also mentioned that they experience pesticide spill on their back, shoulder and arms due to leaking sprayers. Majority of the respondents' complained of skin problem (87.5%) such as itchiness and burning sensation on their bodies. On the other hand, 75% also claimed to experienced stomach ache and 62.5% experienced head ache and eye irritation problems.



This shows that women who are exposed to pesticide and chemical are vulnerable to health hazards. Therefore, it is important for them to wear personal protective gadgets like gas mask, boots, head covers and gloves in spraying chemicals. However, most respondents do not use it. They merely use handkerchief wrapped around their face and clothes with long sleeves as protection.

Weeding. Over work in the vegetable farms results to a lot of health problems among women wherein all of the respondents mentioned that they experienced back pain and open wounds due to not using protective gadgets such as gloves during weeding operations. This indicates that even it is a light work, a particular problems can be found in a particular type of farm work and the type of hazard exposure, in turn, affects the type of health symptoms or illness that the respondents experience.

Harvesting. All of the respondents claimed that they had back pains and muscle pains after work and 50% had wounds. This shows that farming is indeed a hard and physically demanding work for women.

Marketing. Among those women who do marketing of their vegetable crops, 25% of them claimed that they experienced road accidents along road and 50% experienced bankruptcy due to low vegetable price in the market.



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study was conducted to determine the socio-demographic profile of the respondents in Dalipey, Bakun, Benguet; the farm operations performed by women, and the problems encountered in performing farm operations. Actual site visits and data gathering were conducted in December 2011 to January 2012. Forty (40) women farmers were randomly selected from the village as respondents of the study.

As to the profile, respondents have ages ranging from 26 to 60 years old. All of the respondents were married. Most respondents have a large number of families ranging from 6- 10 family members. This shows that most of the household size of the community is big.

All of the respondents are full time vegetable farmers. Farm area of respondents ranges from 2 to 5 hectares. As to the educational attainment respondents were able to step elementary high school, college and some of them finished vocational course.

All of the respondents mentioned that their main source of income is farming so most of the farm operations were performed by women like fertilizer application, planting, weeding, hilling-up and harvesting every cropping season. According to them farm work is just a normal farm activity for women. During harvesting, women were the one harvesting vegetables while men carry the vegetables from the farm to the main road. Some respondents claimed that irrigation is the responsibility of men. On the other hand, 30% of the respondents claimed that they help in irrigation of their crops. Almost all of the respondents use sprinkler irrigation to irrigate their crops.



In spraying chemicals, 62.5% of the women respondents help in spraying if they have wide farm area especially when their husband cannot do the spraying alone. 87.5% of the respondents do the marketing operations.

The problems encountered by the respondents in land preparation were feeling of empty stomach and back pain. Another problems encountered by women were muscle pain and head ache. Likewise, almost all of the respondents mentioned that they experience stomach ache while performing planting, fertilizer application and chemical exposure. They feel these problems specially if they have their menstrual period. Fifty percent of the respondents also experience head ache during the operations. Women farmers mentioned that they experienced pesticide or chemical spill on their back and arms due to leaking sprayers. All respondents use back pack sprayer and 100% of them claimed to experience shoulder pain. 87.5% of the respondents also complained of skin problems such as itchiness and burning sensation on their bodies. 75% claimed to experience stomach ache and 62.5% mentioned that they experienced head ache and eye problems. This shows that women are being exposed to chemical hazards. They also help in marketing of vegetables. This shows that farming is a hard work for women.

Conclusions

Based on the findings, the following conclusions are made:

1. Large size of family members;
2. They perform most of the farm operations;
3. Hard working women farmers and they spend most of more time in farming than household;



4. The respondents were exposed to chemicals and pesticides; and
5. The respondents give more importance to the health of their vegetable crops than their health.

Recommendations

The following recommendations are made:

1. Promote family planning and importance of women health through training and seminars;
2. The respondents should practice to use protective materials such as goggles, gloves, mask, boots and hat to protect themselves from to pesticide exposure, and accidents;
3. The respondents should balance their time on farm and to their house to have time with their family and to guide and supervise their children on their studies; and
4. The respondents should also think and be conscious of their health by visiting the nearest hospital or clinic when they are not feeling well and they should also practice personal hygiene such as taking a bath after farm works to avoid exposure.

The respondents should not use leaking or damage sprayer to avoid skin problem and exposure to chemicals.



LITERATURE CITED

- ARBUCKLE, B. 1998. Total Pesticide Exposure Calculations Among Vegetable Farmers in Benguet, Philippines. *Journal of Environment and Public Health*. Pp.102-104.
- DIONISIO, A. 1993. Gender Analysis of Women in the Philippine Agriculture and their Occupational Issues. *Book of International Women Studies*. Pp.16.
- MCCOY. B. 2002. Gender Differentiation Among Farmers in the Agricultural Sector in Benguet, Philippines. *Journal of International Women Studies*. Pp. 176-179.
- MEEKER. J. 2002. Health Hazards an Preventive Measures of Farm Women. *Emerging Issues*. Pp. 307-314.
- NJUKI, D. B. 2010. Women in Agriculture. Risks for Occupational with the Context of Gender Role. *Journal of Agricultural Safety and Health*. Pp. 19.
- PALMER, INGRID. 1977. Rural Women and the Basic Need Approach to Development. *International Labour Review*. Pp.125-130.
- RAO, J. S. 2007. Pesticide Exposure among Women in Agricultural Sector. *National Journal*.Pp.3-5.
- RIBASFITO, U. 2006. Gender Issues. *Book of International Women's Journal*. Pp. 18.
- TEODORO, L. V. 1996. Gender Issues. It's Women's Month But Still A Man's World. *Clipping Volume*. Pp.60.
- TODARO, M. 2000. Feminization in Agriculture. Retrieved January 2, 2005 from <http://www.feminization.org/2000/agriculture-07101>.
- WORLD BOOK ENCYCLOPEDIA, 1990. *The Free World Book Encyclopedia*. Retrieved February 16, 2000 from <http://en.wikipedia.org/benguet%3>.
- ZAKARIA, A. E. 1998. Why Men and Women Think Differently? *News Week* 25 (13): 26-27.

