

BIBLIOGRAPHY

BALANBAN, GERALDINE G., APRIL 2013. Assessment on Farmers' Acceptability of Organic Farming in Bakun, Benguet. Benguet State University, La Trinidad, Benguet.

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ABSTRACT

This study was conducted in seven barangays of the municipality of Bakun, Benguet namely: Ampusungan Bagu, Cayapa, Dalipey, Gambang, Poblacion (Central), and Sinacbat in December 2012 to January 2013. The objectives of the study were the following; a) to determine the farmers' awareness on organic farming in Bakun, b) to determine if organic farming is acceptable in the locality, c) to determine if the farmers are willing to go into organic farming, and d) to identify the reasons of farmers of practicing organic farming or not practicing organic farming in Bakun. One hundred respondents were personally interviewed with the use of survey questionnaires.

Most of the respondents were aware of the different components of organic farming such as crop rotation, green manuring and composting/vermicomposting. These components were mostly practiced by the farmers not only to their conventional farms but also in their organic farms.



Organic farming is acceptable in the municipality of Bakun and the respondents are also willing to go into it if financial, technical, material/input, and marketing supports would be provided.

Some farmers in Bakun adopted organic farming because of the following reasons: it is beneficial to health, it only requires lesser capital than of the conventional farming, it has good effects on the environment, manageable and also due to successful experiments that motivated them to adopt organic farming.

On the other hand, the internal factors that affect the farmers not to adopt organic farming in the area were: laborious, not convenient to apply, poor quality in terms of income, and organic farmer needs to be accredited before going into organic production. The external factors included the limited establishments of market outlets in the locality, no sustained technical supports available particularly from the government and advocating organizations, and lastly, organic certification is very costly.



INTRODUCTION

Rationale

The farm is the basic unit for organizing and managing the agricultural systems (Battenfield *et al.*, 1984).

Agriculture is an art, science, and industry of managing the growth of plants and animals for human use. In a broad sense agriculture includes cultivation of the soil, growing and harvesting crops, breeding and raising livestock, dairying, and forestry (Microsoft, 2008).

Organic farming is a system of agriculture that excludes the use of synthetic pesticides, growth hormones, antibiotics, genetically modified seeds and animal breeds, and irradiation. Organic farmers instead rely on ecosystem management, including the use of pesticides and fertilizers derived from plants, animal wastes, and minerals. They incorporate biological methods, such as the use of one organism to suppress another, to help control pests. The methods used in organic farming seek to increase soil fertility, balance insect populations, and reduce air, soil, and water pollution (Hynes, 2008).

USDA (2010) as cited by Deshmukh (2010) defined organic farming as a system that is designed to produce agricultural products by the use of methods and substances that maintain the integrity of organic agricultural products until they reach the consumer.

Organic farming can contribute meaningful socio-economic and ecologically sustainable development, especially in poor countries. And this would be achieved through the application of organic production principles, which means efficient management of local resources like local seed varieties and manures. It is proven that most organic farms



provide a means of agricultural sustainability by reducing the amount of synthetic inputs such as pesticides and fertilizers. Farmers that produce vegetables through organic method reduce risk of poor yields (Anonymous, 2009 as cited by Empiso, 2010).

In a long-term study by the US Department Agricultural Research Service (ARS), scientists concluded that contrary to widespread belief, organic farming can build up soil organic matter better than conventional no-till farming, which suggests long-term yield benefits from organic farming. An 18-year study of organic methods on nutrient-depleted soil concluded that conventional methods were superior for soil fertility and yield in a cold-temperate climate, arguing that much of the benefits from organic farming are derived from imported materials which could not be regarded as “self-sustaining” (Anonymous, 2010).



REVIEW OF LITERATURE

Organic Farming

The term organic was first used in relation to farming by Nourthbourne. The farm itself must have a biological completeness, and it must be a unit which has within itself balance organic life (Empiso, 2010).

Organic farming is sometimes referred to as sustainable agriculture, although the two concepts have subtle but significant differences. Sustainable agriculture seeks to improve the entire food and agricultural system by balancing production and consumption. For example, a farmer practicing sustainable agriculture may use the manure from the animals to fertilize the fields of grain that are grown to feed the animals. Eliminating the purchase of fertilizer reduces the cost of growing grain, and growing grain for animal feed rather than buying it reduces the cost of raising livestock (Hynes, 2008).

Organic farming is the form of agriculture that relies on techniques such as crop rotation, green manure, compost and biological pest control. Organic farming uses fertilizers and pesticides but excludes or strictly limits the use of manufactured (synthetic) fertilizers, pesticides such as herbicides, insecticides and fungicides), plant growth regulators such as hormones, livestock antibiotics, food additives, genetically modified organisms, human sewage sludge, and nano material. Shagol (2008), stated that organic farmers had been dependent on seeds supplied by the conventional seed suppliers but a new step is now under consideration by the organic community: “organic varieties” for organic farming.



History of Organic Farming

The concept of organic farming originated out of the organic movement that existed in the 1930s and 1940s. The organic movement was actually an anti-synthetic fertilizer movement. Synthetic fertilizers were used widely in those days for agricultural purposes, whereas organic farming prohibits the application of synthetic fertilizers and pesticides. Organic farming is a very old concept and a developed practice in India. In fact, it was implemented in India before organic movement began (Daniel, 2010).

The 1940s has been referred to as “pesticide era”. Sir Albert Howard is widely considered to be the father of organic farming. Rudolf Steiner, an Australian philosopher, made important strides in the earliest organic theory with his biodynamic agriculture. More work was done by J.I. Rodale in the United States, Lady Eve Balfour in the United Kingdom, and many others across the world (Daniel, 2010).

Purpose of Organic Farming

The purpose of organic farming (Halpin *et al.*, 2006) is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people. Organic agriculture adheres to globally accepted principles which are implemented in specific social, economic, geo-climatic and cultural contexts.

Objectives of Organic Farming

The objectives of organic farming were to produce food of high nutritional quality in a sufficient quantity; b) to work with the natural systems rather than seeking to dominate them; c) to encourage and enhance the biological cycles within the farming system



involving microorganisms, plants and animals; d) to maintain and increase the fertility of the soil; e) to use as far as possible, renewable resources in locally organized agricultural system; f) to give all livestock conditions of life that allow them to perform all aspects of their innate behaviour; g) to avoid all forms of pollution that may result from agricultural techniques; h) to maintain the genetic diversity of the agricultural system and its surroundings including the protection of plant and wild life habitats; i) to allow agricultural procedures an adequate return and satisfaction from their work including a safe working environment; and lastly, to consider the wider social and ecological impacts of the farming system (IFOA, 2010 as cited by Deshmukh, 2010).

Awareness on Organic Farming

Results of the study done by the Benguet State University in collaboration with the Philippine Institutional University Cooperation Programme revealed that more than 90% vegetable consumers are not aware of clean vegetables. Those who know of these vegetables on the other hand claim that their knowledge came from friends and relatives, the media and from retailers but of the 804 respondents, 99% are willing to pay for clean vegetables (Pablo, 2004).



METHODOLOGY

Locale and Time of the Study

Bakun is 336 km away from Manila and 86 km away from Baguio City. Bakun is composed of seven barangays namely; Ampusongan, Bagu, Cayapa, Dalipey, Gambang, Sinacbat, and Poblacion.

The research was conducted at the Municipality of Bakun, Benguet from December 2012 to January 2013. The study site is shown in Figure 1.

Respondents of the Study

The respondents of the study consisted of 100 farmers which who were taken through random sampling.

Data Gathered

The data gathered included the demographic profile, awareness on organic farming, level of knowledge on organic farming, level of acceptability on organic farming, the reasons of farmers for adopting/not adopting organic farming in the area and lastly, the farmers' interest to engage in organic farming.

Data Gathering Procedure

The data of the study were gathered with the use of interview schedule containing the necessary questions to answer the objectives of the study. It was done through personal interview.

Data Analysis

The data gathered were analysed and interpreted by the researcher according to the objectives of the study. Frequency counts, percentages, and likert scale were used in the analysis of data.



RESULTS AND DISCUSSION

Demographic Profile of the Respondents

Table 1 shows the demographic profile of the respondents according to their age, gender, marital status, educational attainment, and occupation.

Age. There were 32% of the respondents who belonged to the ages ranging 20-30 years old. This is followed by 27%, 31-40 years old; 25%, 41-50 years old; 13%, 51-60 years old; 2%, 61-70 years old; and 1%, 72 years of age. The finding shows that the respondents were taken from the young and the old as well.

Gender. The table shows that there were more male respondents (58%) while 42% were females. The data shows that farming is managed mostly by the head of the family but then, women can also do.

Civil status. The distribution of the respondents as to marital status is as follows: 19% single, 73% married, 8% were widow and none of them were divorced. The data may imply that the respondents whether single, married, or divorced were engaged to farming.

Educational attainment. All the respondents had formal education. There were 31% elementary, 45% high school, 23% college and 1% vocational. This finding may imply that despite the highest educational attainment, still they were farming for additional income for the family.

Occupation. The table shows that 100% of the respondents were engaged to farming. However, there were some farmers who were at the same time public employees (4%), self-employed and retired agriculturist (1%).



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study was conducted from December, 2012 to January, 2013 at the seven barangays of the municipality of Bakun, Benguet with the following objectives: a) to determine the farmers' awareness on organic farming in Bakun; b) to determine if organic farming is acceptable in Bakun; c) to determine if farmers are willing to go into organic farming; and lastly, to identify the reasons of farmers of practicing/not practicing organic farming in the area. One hundred farmers were interviewed.

Based on the findings, most of the respondents were aware of organic farming having 79% while only 21% were not aware of organic farming. The most common component of organic farming being practiced by the respondents was crop rotation, composting, and the use of traditional practices and varieties.

As to application of the different components of organic farming, those who are aware of organic farming claimed that they had attended some trainings and seminars; however, they have not yet applied what they have learned because the materials are not completely available in the area.

As to the interest of the farmers to go into organic farming, most of them were willing to go into organic farming with the following conditions; a) organic farming would at least be supported by any concerned agencies as well as the government, b) more establishment of market outlets for organic products, c) no limitation of products to be sold in the market just like how the conventional products are sold if possible, d) more researches and improved technologies that will help organic farming be successful and



lastly, a sustained technical supports from any concerned agencies. To sum up with, organic farming is acceptable in the municipality of Bakun, however, with the combination of all the aspects of supports which are suggested by them.

The factors influencing the farmers to adopt organic farming were: beneficial to health, it needs lesser capital, it has good effects on the environment, manageable, successful experiment, the availability of any local materials in the area and it is also more economical than of the conventional farming.

On the other hand, the internal factors affecting the respondents of not adopting organic farming were: laborious, not convenient to apply because the soil is already acidic due to chemicals, poor quality of produce because it is easily attacked by pests and diseases which results to low yield and low income, and lastly, the respondents claimed that they have no money to pay for organic certification fees.

The external factors affecting the respondents of not adopting organic farming includes the limited establishments of market outlets for organic products, it takes time to revive the fertility of the soil, organic certification is costly, no support from the government, and there's no sustained technical supports from the concerned agencies.

As to the different barangays' findings, barangay Bagu, Cayapa, Poblacion and Sinacbat have been engaged to rice farming. The respondents claimed that the application of fertilizers in the field is minimal and moderate, it is when planting the seedlings and usually once in a two planting seasons. Hon. John Balanban of barangay Bagu claimed that the use of azolla is also helpful in the field. The composted azolla will serve as fertilizers for the rice while the live azolla placed in the field will serve as food for the golden instead of the rice plants.



Most of the respondents claimed that going into organic farming especially for those who are engaged in conventional farming for how many years will take a lot of time and it may be necessary to fallow the garden or farm for some period of time to revive the fertility of the soil. Some of them also claimed that in order for the organic farming to be successful, at least all of the nearby farms and gardens should adopt because it would be useless if the others do not. For instance, the nearby farms engaged to conventional farming will infect the soil being used for organic farming.

Conclusions

Based on the findings the following conclusions were made:

1. Most of the respondents are aware of the different components of organic farming but due to inadequate technical knowledge as well as the material/inputs needed, the farmers were not able to apply all of it;
2. Most of the farmers in Bakun are willing to go into organic farming if technical, financial and market supports are provided and material inputs are available so that they would not spend much time preparing these materials; and,
3. Availability of market outlet for organic produce would encourage farmers to adopt organic farming.

Recommendations

Since organic farming is acceptable in the municipality of Bakun, there should be support from the local government and those advocating organic farming to link the farmers to markets to enable them to sell their produce. Promotion on organic farming in



the locality would also mean a great help to motivate or encourage the farmers to adopt organic farming. Also, the role of LGU is very much needed to facilitate accreditation on organic farming.

The farmers must also be active in attending trainings and seminars regarding organic farming. Thus, more seminars, trainings should at least be held on the barangay itself for them to attend. There should also be an organization of the farmers and as much as possible be registered as organic producers. Lastly, all the farmers in one location should adopt organic farming to avoid contamination from conventional farming.



LITERATURE CITED

- ANONYMOUS, 2009. Advantages and disadvantages of Organic Farming. Retrieved November 13, 2012 from <http://knowledgeofagriculture.advantages-and-disadvantages-of-organic.html>.
- ANONYMOUS, 2010. Organic Farming. Retrieved December 3, 2010 from <http://www.cs.mcgill.ca/~rwest/link-suggestion/wcpd2008-2009>.
- BATTENFIELD, S., T. C. EDENS, and C. FRIDGEN. 1984. Sustainable Agriculture and Integrated Farming Systems. Michigan University Press: East Lansing. Pp. 34 and 187.
- DANIEL, H. 2010. Benefits of Organic Farming. Retrieved November 13, 2012 from <http://benefitof.net/benefits-of-organic-farming>.
- DESHMUKH, S. N. 2010. Organic Farming: Principles, Prospects, and Problems. AGROBIOS INDIA: Bharat Printing Press, Jodhpur. Pp. 16-17.
- EMPISO, A. B. 2010. Perception of Farmers on Organic Vegetable Production in Bakun. BS Thesis (unpublished). Benguet State University, La Trinidad, Benguet. Pp. 4, 10-11.
- HALPIN, D., LAWRENCE, G., LOCKIE, S., and LYONS, K. 2006. Going Organic: Mobilizing Networks for Environmentally Responsible Food Production. UK: Athenaeum Press, Gateshead. Pp. 5, 13, and 54.
- HYNES, E. 2008. Organic Farming. Microsoft Student with Encarta Premium. Redmond, WA: Microsoft Corporation.
- KIM, A. K. 2006. Natural Farming Technology seminar, BPI-BNPDC Baguio City 2600, 2006.
- LOTTER, D. 2003. Organic Agriculture. Journal of Sustainable Agriculture 21(4).
- MICROSOFT, 2008. Agriculture. Microsoft Student with Encarta Premium. Redmond, WA: Microsoft Corporation
- PABLO, J. 2004. Technology Synthesis of Organic Farms in Benguet: A Benchmark Study. Master Thesis. Benguet State University, La Trinidad, Benguet. P. 11.
- SHAGOL, C. C. 2008. Genotype X Environment Interaction in Potato Grown Organically in Six Locations of Benguet. Master Thesis. Benguet State University, La Trinidad, Benguet. P. 8.

