

Level of Compliance to Organic Agricultural Practice in the Practical Year Training Programme of University of Ibadan, Nigeria

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Abstract

The study assessed compliance to organic agricultural practice in the practical year training programme (PYTP) of the University of Ibadan, Nigeria. A total of 122 PYTP students were sampled. Data were collected through well-structured questionnaire and analysed with frequency counts, percentages and means. Study revealed that 73.1% have high level of knowledge on organic agriculture. Quest to meet up with required planted crops (tamaranths, celosia and chocorus) yield, weed control and pest and diseases were the top constraints to compliance. Less than half (47.8%) of respondents had a high level of compliance. However, high knowledge of organic agricultural practices did not translate to high level of compliance to standard practice. Students must be made to adhere strictly to principles being taught by the instructor and other means of grading rather than yield should be employed.

Introduction

Organic agriculture is a production system that sustains the health of soils, ecosystems, biodiversity and people. It relies on ecological processes and nutrient cycles adapted to local conditions, rather than the use of external inputs. Organic agriculture combines traditional knowledge, innovation and modern science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (IFOAM, 2004; AdeOluwa, 2010). The aim of organic agriculture is to create integrated humane, environmentally and economically viable agricultural systems that rely on local or on-farm renewable resources; management of ecological and biological processes (United Nations Conference on Trade and Development UNCTAD, 2008).

Organic agriculture helps in the improvement of the natural environment, farmers and household incomes. Organic farms are more profitable than conventional agriculture (Twarog 2006; Gibbon and Bolwig, 2007).

Edozien (2002) believed that Nigeria future lies in the participation of youths in agriculture. This led to establishment of practical year training programme (PYTP) in all tertiary institutions offering agriculture. The programme exposes 400 level students of the Faculty of Agriculture and Forestry to the practical aspect of agriculture. During this period each student is allowed to have her own plot and cultivate her crop to the harvesting level. The students are divided into two groups in which one of the group practices organic agriculture and the other practices conventional farming. However, organic agriculture practice is governed by some principles. Unfortunately, students in a mission to acquire good

grades in their practical do everything possible to improve their yield despite the fact that the training is not profit oriented in monetary term. This attitude of students may negate the principles of organic agriculture. Also, if agricultural students that are meant to be information carrier of organic agriculture donot comply with all the principles then what is expected from rural farmers? The implication is that overtime, agricultural resources will be endangered. A dearth of knowledge on the extent to which students of organic agriculture know and comply with the standard of organic agricultural practice necessitated this study.

Materials and Methods

The study area was university of Ibadan. University of Ibadan was founded in 1948 and located in the ancient city of Ibadan the capital of Oyo state. It has over 12,000 students and ten faculties including Agriculture and Forestry aside the College of Medicine (Alabi and Ibiyemi, 2000). All PYTP students in 2012:2013 set were the target population. Sixty-seven (67) respondents purposefully sampled practised organic agriculture while the rest fifty- five (55) randomly sampled did not practice organic agriculture and data was obtained with the use of structured questionnaire. The level of compliance was measured by asking respondents to react to a list of expected standard practices of organic agriculture through Yes or No. Scores of 1 was assigned to yes and 0 to no. A score of compliance was generated by summing all the scores obtained from the items indicated. The mean score was calculated and used as the benchmark for categorizing respondents into low and high compliance.

Results and Discussion

Respondents' Level of Knowledge on Organic Agriculture

The result shows that majority of respondents knew that precautionary measures are taken to avoid the contamination of organic sites (0.97), use of cover crops, green manure and crop rotation are important cultural practices (0.94), manure to be used on organic farm should be from organic source only (0.88) health, ecology and fairness are the major principles in organic agriculture (0.89). However, 0.54knew that conventional chemically untreated seeds, seedlings and planting material may be used in organic production, primary ecosystems such as primary forests and wetlands shall not be cleared or drained for the purpose of establishing organic production (0.52). Meanwhile, respondents are still undergoing training. Table 1 shows that majority (73.1%) have high level of knowledge while 26.8% have low level knowledge. Hence, PYTP on organic agriculture can be adjudged fair in terms of passing the right knowledge across to students.

Table 1. Respondent's level of knowledge on organic agriculture

Level of knowledge	Score	Frequency	%	Minimum	Maximum	Standard deviation	Mean score
Low	5 – 17	18	26.8	5	22	3.98	17.1
High	17.1-22	49	73.1				

Constraints to compliance with organic agriculture practices by the respondents

Table 2 reveals that meeting up with required planted crops (Amaranthus, Celosia and Chocorus) yield, weed control, pests and diseases and untimely information in that order were the major constraints to compliance while competition with fellow students for mark ranked lowest. The prominence given to quest to meet required yield arises because of the limited resources supply by the management.

Table 2. Constraints to compliance to organic agricultural practice

Constraints	Mean	Rank
Quest to meet up with required yield	0.90	1
Pests and diseases	0.75	3
Competition with fellow students for mark	0.48	7
Weed control	0.82	2
Untimely information	0.70	4
Marketing	0.67	5
Acceptability of organic food in the market	0.64	6

Compliance of respondents to organic agriculture

Table 3 indicates that respondents paid attention to some standards more than the others. More respondents paid attention to non-application of fertilizer (80.6%) but for use of manure: only few paid attention (26.9%). This might be due to inability to find organic animal farm around to supply such to them.

Table 3. Level of compliance of respondents to organic agricultural practices

Compliance statements	Yes	No
Fertilizer was applied on my farm	19.4	80.6
All seeds planted are from organic source	58.2	41.8
Manure used on my farm are strictly from organic sources	73.1	26.9
Herbicides and pesticides were used on my farm	19.4	80.6
Land has been used for conventional agriculture in the last two years	38.8	61.2
I used chemically untreated seeds for my production	62.7	37.3
I borrow farm tools from my colleagues who practiced non organic farming	13.4	86.6
I washed thoroughly the borrowed farm tools before using on my plot	4.5	9.0
At the selling point, inorganic produce were not mixed with organic produce	74.6	25.4
My organic produce were sold separately from produce of conventional farming	71.6	28.4
I wet my plants with hygienic water	74.6	25.4

Categorization of respondents based on compliance to organic practices

Result on Table 4 shows the minimum score of respondents to be 2 and the maximum score to be 8 while the mean score is 5.13. Therefore, respondents with scores below the mean score were considered to have low compliance while those with scores of mean and above were considered to have high compliance. Results show that 47.8% of the respondents have high level of compliance to the standards of organic agriculture while 52.2% of the respondents have low level of compliance with organic agriculture practice. This implies that less than half of the respondents had high level of compliance to organic agricultural practice.

Table 4. Level of compliance to organic agriculture

Compliance to organic practice	Score	F	%	Minimum	Maximum	Standard deviation	Mean
Low	2 -5.0	35	52.2	2	8	1.86	5.13
High	5.13 - 8	32	47.8				

Categorisation of respondents' knowledge difference shows high level of knowledge among those that practice organic agriculture than those who did not with 73.1% and 43.6% respectively. This implies that practice improves knowledge and for those who did not practice, going in to organic agriculture may be difficult.

Conclusion

The findings shown that majority who practiced organic agriculture though have high level of knowledge but they have low compliance. Also, the respondents who practiced organic agriculture have a higher level of knowledge than their counterpart and therefore it can be deduced that practice enhances knowledge. Organic agricultural practice should be made an integral part of practical year training programme for all the students so as to bridge the gap in knowledge and practice. Instructors should pay more attention to students in order to adhere strictly to principles being taught during practice. Compliance to the organic agriculture principles should be used in grading organic agriculture students rather than expected yield which has become a major constraint to them and may lead to going through shortcut in order to meet up.

References

- AdeOluwa, O.O (2010). *Organic Agriculture and Fair Trade in West Africa*. Rome: Food and Agriculture Organization of the United Nations.
- Edozien, N. N. (2002). Empowering the poor through micro finance. A Paper Presented at 20th Biennial Conference of the Development Finance Department of Central Bank of Nigeria.
- Gibbon, P. and Bolwig, S. (2007). *The Economics of Certified Organic Farming in Tropical Africa: A preliminary analysis*. Subseries on Standards and Agro-Food Exports (SAFE).
- IFOAM (2004). *Network Building for Lobbying in Africa*. Compiled by Souleymane Bassoum, René Tokannou and Ngugi Mutura. Bonn: IFOAM.
- Twarog (2006). *Organic Agriculture: A Trade and Sustainable Development Opportunity for Developing Countries*: United Nations Conference on Trade and Development.
- UNCTAD (2008). *Organic Agriculture and Food Security in Africa*.