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PROPENSITY OF AGRICULTURE EMPLOYEES TO PURSUE CAPACITY BUILDING AND ADVANCED COURSES IN ORGANIC AGRICULTURE – A DEMAND SURVEY

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ABSTRACT – Progress in the field of organic agriculture (OA) carries the challenge of training and educating various stakeholders involved in its development and promotion. To determine whether there is sufficient demand for master's and doctoral degree programs and capacity building offered by higher education institutions (HEIs) such as the University of the Philippines Los Baños (UPLB), a survey was conducted among agriculture personnel of nearby government agriculture offices. Also surveyed were supervisors of such offices and government-accredited private extension service providers (ESPs) to find out whether they will send their staff to take such advanced OA courses, if offered. Data collected from 205 prospective students or trainees and 23 supervisors were analyzed using descriptive statistics. Results revealed that 89% of prospective students were willing to attend training or seminars, 55% would enroll on a master's degree program, and 35% on a doctoral degree program related to OA. Likewise, all supervisors supported the idea of sending their personnel to training and seminars while 91% and 67% were willing to have their employees take up master's and doctoral degree programs, respectively. These indicate a good demand for OA courses reinforcing any initiative of the academe to develop and train OA experts through high-impact academic programs that support OA.

Keywords: Course interest, graduate education, sustainable development, training, UPLB

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INTRODUCTION

Concerns over the growing threats of climate change, biodiversity loss, poverty, and deteriorating health in the past decades have moved world experts to propose the adoption of agricultural systems that provide healthy food, minimize environmental impact, and enable producers to earn a decent living (IFOAM, 2019). This development paved the way to the proliferation of organic agriculture worldwide. As of 2018, there were 2.8 million organic producers cultivating 71.5 million hectares of organic farmlands, and a growing market of organic products to over 100 billion US dollars globally (FiBL and IFOAM, 2018).

The growth of organic agriculture (OA) can be attributed to several interrelated factors that make it highly desirable to various stakeholders. Environmentally, studies disclosed the superiority of OA in managing agricultural lands compared to conventional farming (Bengtsson et al., 2005; Hole et al., 2005; Pacini et al., 2003; Righi et al., 2011). Since organic products are free from synthetic chemicals, they are viewed as safe and good for health. Economically and socially, organic products are generally considered as high-end products, command higher prices, and have greater demand; thus, contributing to reduction of poverty among producers. Because of these, the International Federation of Organic Agriculture Movement (IFOAM) – Organics International and Its Action Group deem OA as a solution to achieve sustainable development goals (IFOAM-Organics International, 2019).

In the Philippines, government support for OA is assured with the passing of Republic Act No. 10068 known as the Organic Agriculture Act of 2010. Along with the National Organic Agriculture Program (NOAP) spearheaded by the Department of Agriculture (DA), it engages several stakeholders in the development of OA such as local governments, academe, and the private sector. As a result, a tremendous increase in the number of organic farmers as well as of land area devoted to OA were recorded in 2011-2016 (PIA, 2016).

A key to the adoption of OA is building capacities of various stakeholders involved in its development and promotion through education and training. It has been said that knowledge precedes the successful adoption and application of a discipline (Rogers, 2003; Wigboldus et al., 2016). This is especially true in OA because strict adherence to certain rules and principles of organic farming is required before farm products can be legitimately called or "certified" as organic (IFOAM, 2014; Setboonsarng, 2015). Hence, well-crafted capacity building and educational interventions are important in the success of this sustainable development pursuit (Yaseen et al., 2015; IFOAM-Organics International, 2020). Studies showed that a year of investment in higher education generates an average rate of return of 15.8% with the highest rate of 26.8% in low per capita income level areas (Psacharopoulos and Patrinos, 2018). Moreover, capacity building through training and other forms of extension services has an annual rate of return of up to 80% (IFPRI, 2012).

In response to this growing demand for capacity building, many HEIs, specifically agricultural colleges and universities, have developed academic programs on OA (The Organic and Non-GMO Report, 2006). In the Philippines, the UP Open University has developed and offered a continuing education program on Organic Agriculture spearheaded by affiliate researchers from the College of Agriculture and Food Science, UP Los Banos (UPOU, 2013; Zamora, 2014). Then following a demand survey for a baccalaureate degree on OA conducted by the Agricultural Systems Institute (ASI) in 2014, new curricula for two OA courses were instituted under the BS Agriculture Major in Agricultural Systems and were offered for the first time in the academic year 2019-2020 (ASI, 2019).

Anticipating the need for adequate supply of highly educated and trained OA experts, UPLB intends to further expand its OA academic program by integrating it to its master's and doctoral degree programs and training courses. This study was therefore conducted to explore whether there is sufficient demand for OA courses among prospective students and employers. Specifically, this study aimed: 1) to determine the demand for formal/graduate (master's and doctoral degrees) and non-formal (trainings/seminars) courses on organic agriculture that maybe offered by UPLB to present agricultural personnel who may be interested in taking such courses; and 2) to determine the same demand from their supervisors/employers to ascertain the support of their institutions for these courses.

METHODOLOGY

Research design

This study employed a descriptive research design. According to Mertler (2017), descriptive research is used to describe and interpret the characteristics of people, events or phenomenon as they occur naturally. The study therefore characterized prospective students or participants of OA capacity building and advanced courses based on their position, education, background, OA involvement, training, motivation, preferred topics, learning methods, and willingness to pursue such courses offered by UPLB. It also sought to determine the willingness of their employers or supervisors to send them to OA-related capacity building programs.

Respondents

There were two types of respondents in this study: 1) prospective students or participants; and 2) employers or supervisors. The first type refers to agriculture personnel – most of whom were involved in the implementation of OA programs and projects of government agriculture and agrarian reform offices. This included those from the central and regional/branch offices of the Department of Agriculture (DA) and its attached agencies; provincial, city, and municipal agriculture offices of the local government units (LGUs); and Department of Agrarian Reform (DAR) Laguna in Region 4A. Other respondents included personnel working in the Regional Training Centers of the Agricultural Training Institute (ATI), who attended trainings conducted by the agency at its central office. These personnel's employers or supervisors constituted the second group of respondents, which includes the government-accredited private ESPs. Both groups were selected based on their proximity to UPLB and their availability. A total of 205 responses from prospective students and 23 from employers and/or supervisors were generated from the survey.

Data collection and analysis

The study, conducted in July-December 2019, employed field survey as primary data collection method. Two sets of structured questionnaires – one for each type of respondents – were prepared and distributed in their workplaces, through email and during trainings and special events. Responses were encoded and analyzed using MS excel. Descriptive statistics was used in the analysis presented in tables, charts and graphs that reflect frequencies and percentages. Weighted score analysis was also used for data groups that needed to be ranked.

RESULTS AND DISCUSSION

Demand for OA capacity building and advanced courses among prospective students

Characteristics of respondents

Basic profile. The age of prospective students ranged from 21-63 years with an average of 35 years old. About half (49%) of them were 21-30 years old, whereas fewer responses were obtained from older personnel. In terms of sex and civil status, they were mainly female (61%) and single (58%), respectively. Majority (46%) have the positions and/or designations of agriculturists, agricultural technicians and/or agricultural technologists in their work places. Table 1 shows details of the respondents' basic profile.

Table 1
Basic profile of respondents

Variable (n=205)	Frequency	Percentage
1. Age (Ave. 35)		
21-30	101	49.3
31-40	46	22.4
41-50	26	12.7
51-60	26	12.7
61-63	6	3
2. Sex		
Male	79	39
Female	126	61
3. Civil status		
Single	119	58
Married	75	36.6
Widow/er	8	3.9
Separated	1	0.5
Not disclosed	2	1
4. Position/designation		
Agriculturists/Agricultural Technicians/Technologists	94	45.9
Research Specialists/Analysts/ Assistants	32	15.6
Project/Development Management and Planning/Evaluation Officers	22	10.7
Training Specialists	14	6.8
Information Officers/Media Specialists	11	5.4
Agrarian Reform Officers	5	2.4
Aquaculturists /Engineers	4	2
Administrative/Support Personnel	21	10.2
5. No position indicated	2	1

Education and professional background. Table 2 shows that all the respondents have completed their baccalaureate degree except that 4% did not disclose their specific courses. About half (49%) were graduates of BS Agriculture and agriculture-related courses. Over a fifth (21%) were graduates of master's degree (MS/MA) courses that are mostly in agriculture and agriculture-related fields as well as in management/administration and their related courses. Also a few (9%) of the respondents were still taking MS/MA courses or have acquired certain units of the degree.

Table 2
Educational background of prospective students

Courses (n=205)	Frequency	Percentage
Baccalaureate degree		
BS Agriculture* and agriculture-related** courses	121	59
BS Fisheries, Food Technology, Biology, Entomology, Doctor of Veterinary Medicine	17	8.3
BS/AB Development Communication, Information, Communications Technology	17	8.3

BS Agricultural Engineering	15	7.3
Other Courses***	27	13.2
No Courses indicated	8	4
Master's degree		
MS/MA Agriculture*	22	10.7
MS/MA Management/Administration (Public, Development, Program, Strategic, Business, Education, Environment and Natural Resources)	20	9.8
MS/MA Extension, Communication and Rural Development	2	1
With MS/MA units only	18	8.8

*Agriculture courses included Crop Science, Agronomy, Horticulture, Animal Science, Crop Protection, Soil Science, Plant Breeding

**Agriculture-related courses included Agricultural Extension/Technology, BS Agribusiness Management and Economics

***Other courses included Education, Commerce, Management, Accounting, Engineering, Political Science, History, Statistics, Nursing, Foreign Service and General BS Courses

Most of the respondents were certified by the Professional Regulation Commission (PRC) and by the Civil Service Commission (CSC) – the Philippines' constitutional agencies responsible for regulating the standards of practice of various professions and employment of civil servants, respectively. Professional agriculturists dominated the number of PRC-licensed personnel that also included agricultural biosystems engineers, teachers, and foresters. More than half of the respondents revealed that they were CSC professionals and sub-professionals (Table 3).

Table 3

Professional competencies of prospective students

Professional Licenses/Eligibilities* (n=205)	Frequency	Percentage
PRC Licensed		
Licensed (Profession not indicated)	51	25
Licensed Agriculturists	42	20.5
Licensed Agricultural Biosystems Engineers	8	4
Licensed Teachers	7	3.4
Licensed Foresters	3	1.5
Others	5	2.4
CSC Professional	96	47
CSC Sub-Professional	21	10.2
No Professional license/eligibility indicated	36	17.6

*Some personnel have 2 or more licenses of different professions and CSC eligibilities

In addition to professional background, half (103) of the respondents have obtained technical skills from the Technical Education and Skills Development Authority (TESDA), the country's agency in-charge of regulating technical competencies. During the survey, a cumulative number of 131 certificates of competencies (COC) were reported to have been acquired by the respondents from TESDA training, of which 68 were National Certification on organic agriculture Level 2 (Table 4).

Table 4
Technical competencies of prospective students certified by TESDA

Particulars Number of personnel who obtained TESDA-NC: 103*	National Certification (NC) Level		
	Level 1	Level 2	Level 3
Number of COCs obtained on OA	-	68	-
Number of COC obtained on Non-OA			
Agricultural Crops Production and Horticulture	-	16	15
Animal Production	-	12	-
Training Management	9	-	-
Machinery Operations	-	4	-
Food processing	-	2	-
Others	-	5	-
Total COCs obtained from TESDA = 131	9	107	15

*Note: Some personnel have 2 or more obtained COCs

Involvement in organic agriculture. About 80% of the respondents were practicing and/or have been directly involved in the promotion of OA (Figure 1). Most of them (34%) appeared to be neophytes with less than a year to two years of experience, while few (4%) were veterans having more than ten years of experience (Table 5). Although a significant number (14%) did not indicate that they were involved in OA promotion, it must be noted that their offices/agencies are mandated under Philippine Republic Act No. 10068 known as the Organic Agriculture Act of 2010 to have a share in this activity.

Their involvement was mostly in organic crops followed by livestock, integrated diversified commodities, then poultry, aquaculture, and other commodities, such as organic fertilizers, concoctions, and extracts, among others (Figure 2).

Figure 1
Practice/Involvement of prospective students in the promotion of OA

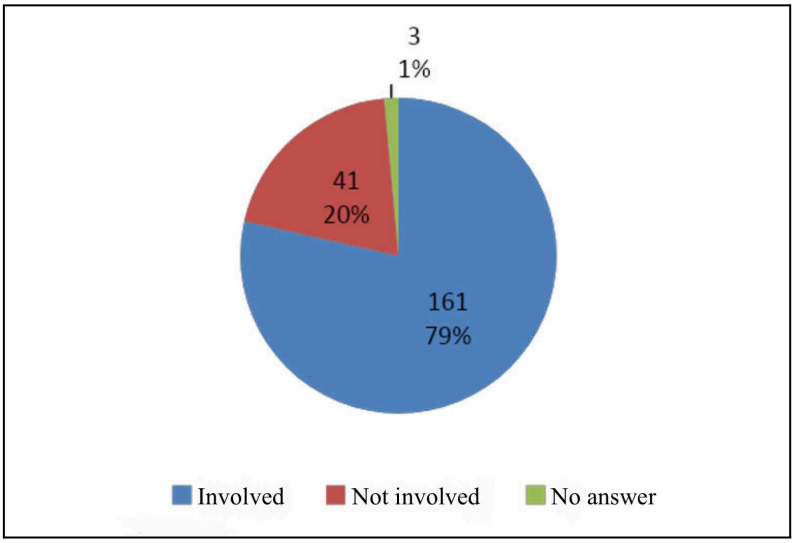


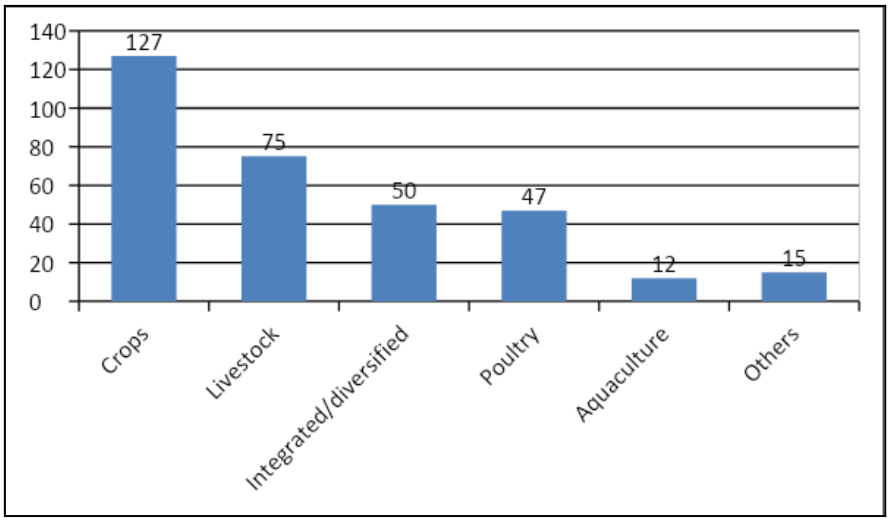
Table 5

Years of involvement in the promotion of OA

Years involved (n=161)	Frequency	Percentage
<1 to 2 years	54	33.5
>2 to 4 years	36	22.4
>4 to 6 years	17	10.6
>6 to 8 years	16	9.9
>8 to 10 years	10	6.2
>10 years	6	3.7
No years indicated	22	13.7

Figure 2

OA Commodities grown/promoted by prospective students



Knowledge and Training on OA. More than half of the respondents rated their knowledge on OA as good and a small number as excellent (Figure 3). Looking into the capacity building activities that they attended, only 34% were OA and OA-related (Figure 4). Such trainings included OA production trainings and seminars [e.g., Integrated Diversified Organic Farming System (IDOFS)], OA standards and certification [e.g., Internal Control System (ICS) training], OA assessment and planning, competency training on OA commodities, and training of OA trainers/newbies.

Figure 3

Perception of prospective students on their knowledge on OA

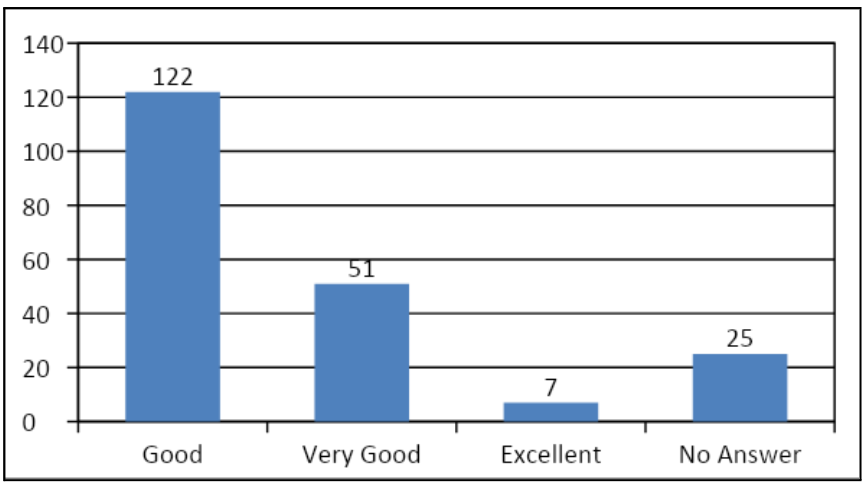


Figure 4
Trainings attended by prospective students

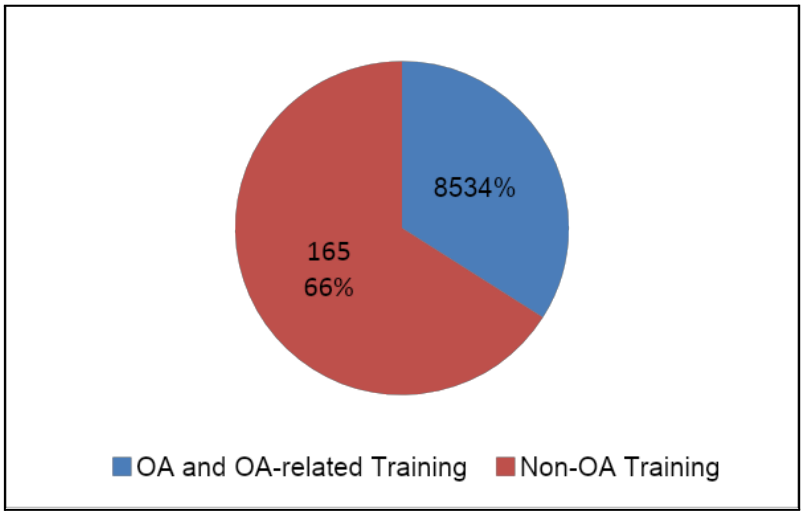
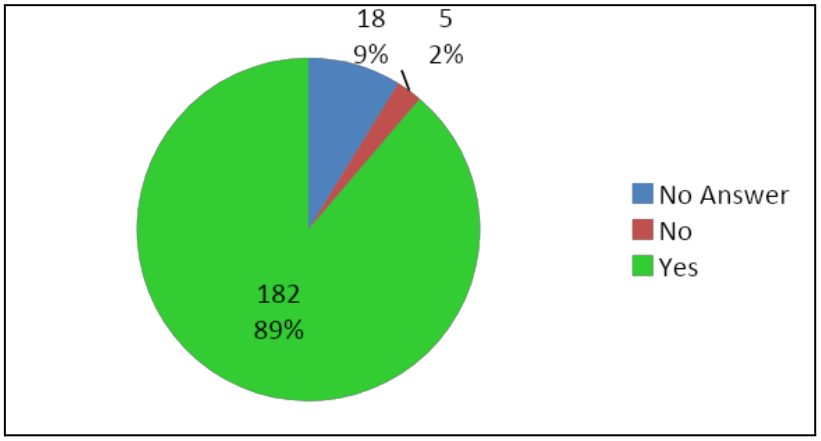


Figure 5
Responses of whether to enroll of not if training/seminar on OA is offered by UPLB



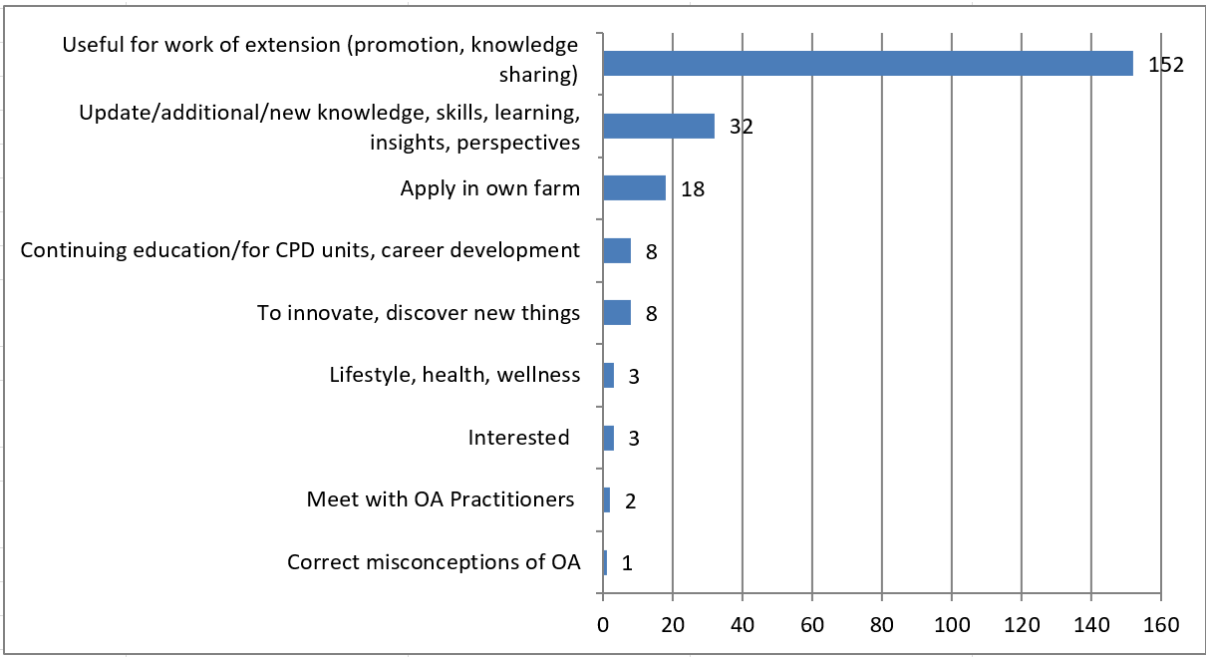
Demand for OA capacity building

Interest in training/seminar or short courses on OA. Close to 90% of prospective students responded positively when asked if they will enroll whenever UPLB will offer training or seminars on OA (Figure 5).

Reasons to enroll if UPLB will offer the training/seminar. When asked why they would attend training and seminars to be offered by UPLB, their top reason was the usefulness of the intervention to their work, particularly on OA promotion and knowledge sharing (Figure 6). The next important reason was to update their knowledge, including skills, insights and perspectives on OA.

Figure 6

Reasons for positive responses to enroll if training/seminar on OA is offered by UPLB



Preferred topics for OA training/seminar. From a given list of topics commonly used for OA training and seminars, the respondents were asked to select their top five most preferred topics and rank them. Based on the computation of weighted scores, the top three most preferred topics by the prospective students were: 1) organic crop production; 2) organic pest and disease management; and 3) agribusiness, marketing, and entrepreneurship (Table 6).

Table 6

Preferred topics for organic agriculture training/seminar of prospective students

Topics*	Frequency based on weighted scores of preferred topics					Overall Score	Rank
	Most preferred (1)	2nd Most preferred (0.9)	3rd Most preferred (0.8)	4th Most preferred (0.7)	5th Most preferred (0.6)		
Organic crop production	49	18.9	15.2	9.1	9.6	101.8	1
Organic animal production	15	17.1	8.0	14.0	10.8	64.9	5
Organic pest and disease management	20	29.7	27.2	9.8	6.6	93.3	2
Production of organic fertilizers and soil amendments	5	13.5	22.4	10.5	7.2	58.6	6
Soils and nutrient management	13	13.5	12.8	16.8	10.8	66.9	4
Post harvest crop and animal management	4	4.5	4.8	7.0	7.2	27.5	9
Processing of organic agricultural products	7	13.5	13.6	14.0	7.2	55.3	7
Policies, standards and certification	21	9.0	9.6	7.7	6.0	53.3	8
Agribusiness, marketing, and entrepreneurship	24	15.3	5.6	11.9	19.2	76.0	3
Other topics not listed above (specify)	1	0	0.8	1.4	0	3.2	10

Demand for advanced courses in OA

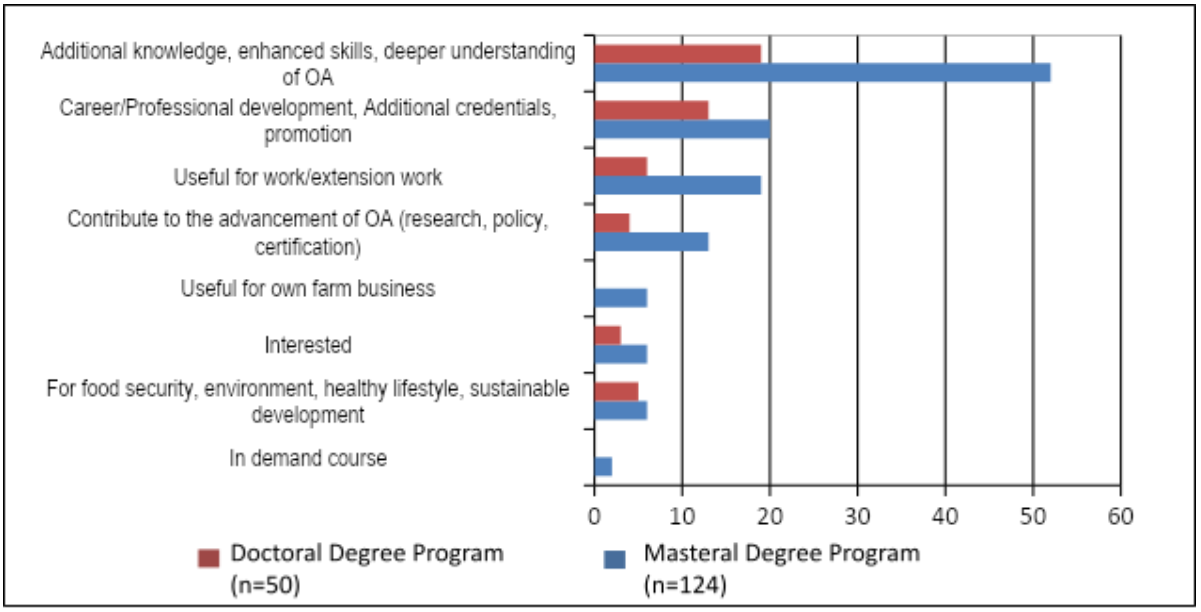
Interest in advanced courses in OA. For the master's degree program, over half (56%) of the prospective students have indicated their positive response to take the course, if offered. Comparatively, their interest to enroll in the doctoral degree program is lower with only 35% (Table 7).

Table 7
Response of prospective students whether they are interested to take advanced courses on OA or not

OA Advanced courses (n=205)	Frequency	Percentage
Master's Degree Program		
Yes	114	55.6
No	69	33.7
No response	22	10.7
Doctoral Degree Program		
Yes	72	35.1
No	90	43.9
No response	43	21.0

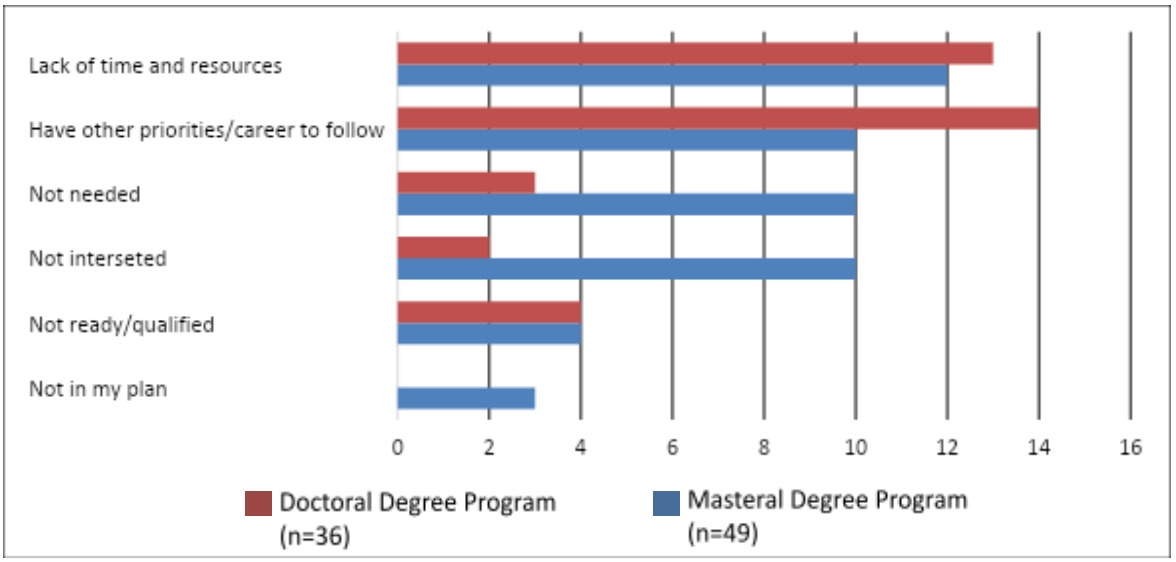
Reasons to enroll in OA advanced courses. For both master's and doctoral degree programs, the respondents' top three reasons to enroll in were: 1) additional knowledge, enhanced skills and deeper understanding of OA; 2) career/professional development – adding credentials for promotion; and 3) useful for work especially on extension (Figure 7). This finding reflects the intrinsic, extrinsic and altruistic motivation of employees in pursuing graduate studies. Intrinsic motivation relates to the love of work and desire to improve, while extrinsic to external benefits, and altruistic to belief that it is a social responsibility (Bruinsma and Jansen, 2010; Roness, 2011). Studies related these motives to doing well in school, job performance and commitment to the profession (Roness, 2011; Sinclair et al., 2006; Moran et al., 2001). This study also revealed that prospective students were strongly motivated to pursue and were determined to complete the capacity building and advanced courses on OA if ever granted. This finding is a good indication that these programs will succeed.

Figure 7
Reasons of prospective students for enrolling advanced courses on OA



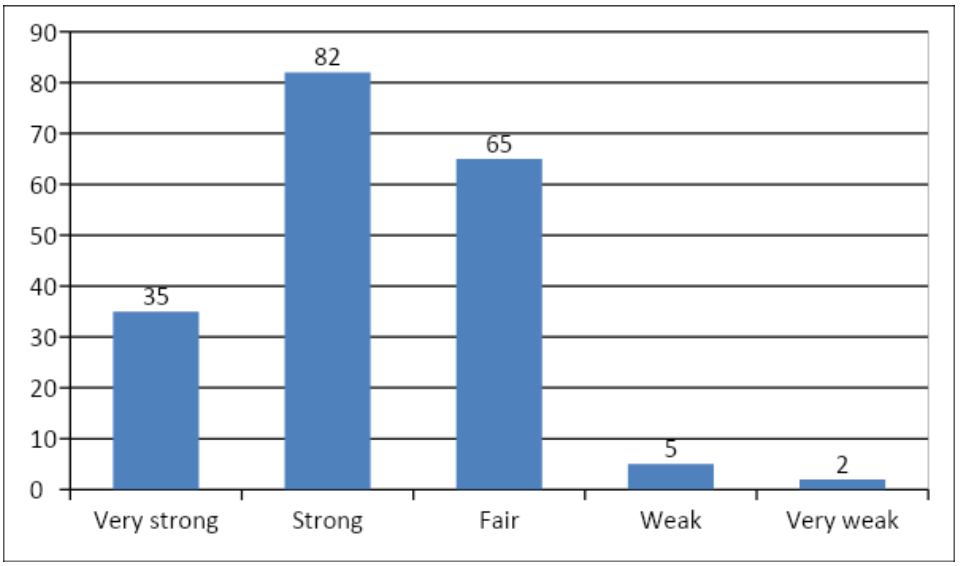
Those who chose not to enroll reasoned that 1) it is not their priority, 2) they lack time and resources, and 3) they are not interested (Figure 8).

Figure 8
Reasons of respondents for not taking the advanced courses on OA



Motivation to pursue OA capacity building and advanced courses. The respondents were asked to rate their motivation to enhance their capacity in the practice and promotion of organic agriculture through training and master's and doctoral degree programs. Figure 9 shows the highest response on strong motivation followed by fair and very strong motivations, respectively.

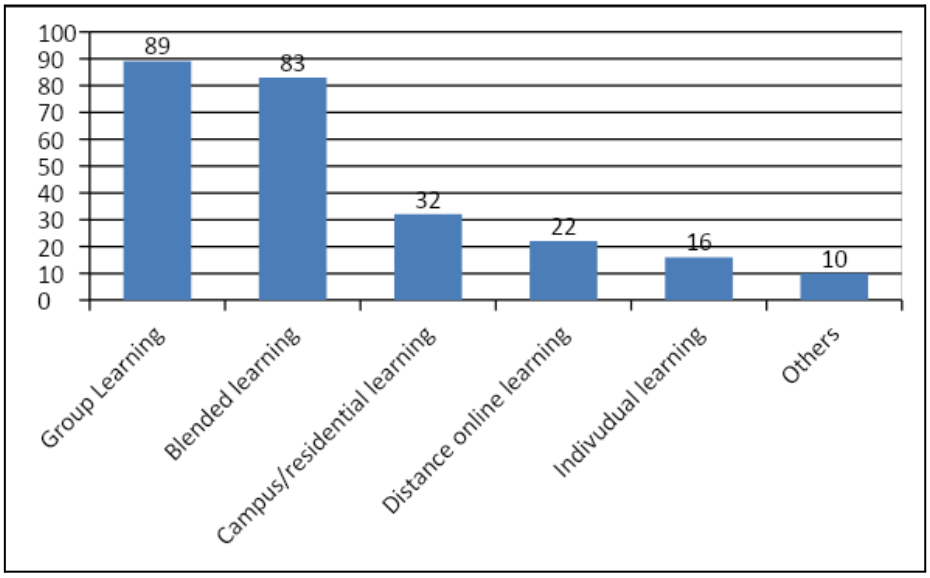
Figure 9
Respondents' rating on their motivation to enhance their capacity in OA



Preferred learning methods. From a given list of learning methods that may be used in the training as well as in the master's and doctoral degree programs to be offered by UPLB, the

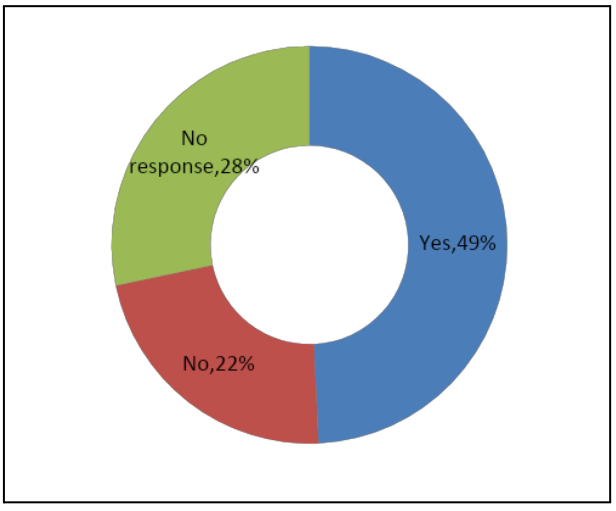
prospective students generally preferred group learning, blended learning and campus/residential learning as top three methods for them to learn more effectively (Figure 10).

Figure 10
Preferred learning methods for OA training and advanced courses



Promise to complete the OA advanced courses. When asked if they can promise to complete the master's and doctoral degree programs on OA if ever they are called to these courses, about half (49%) of the respondents replied positively (Figure 11). These positive responses mostly came from individuals who were interested to enroll in these programs, indicating that they were also determined to finish the course.

Figure 11
Responses of prospective students on the promise to complete masters and doctoral degree programs

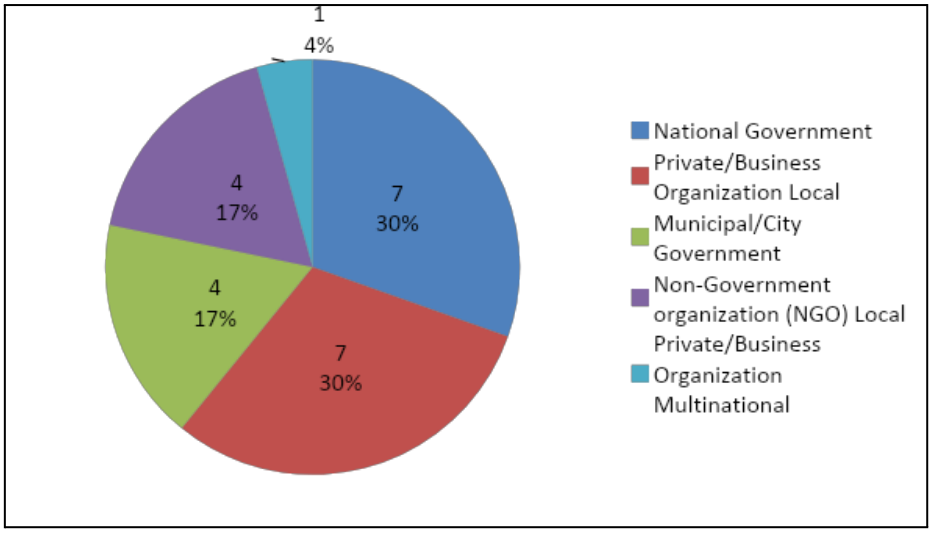


Demand for OA capacity building and advanced courses from Employers/Supervisors

Profile of Respondents
The 23 employers and/or supervisors who responded to the survey were comprised of seven (31%) from the national government, specifically agencies under the DA, four (17%) from

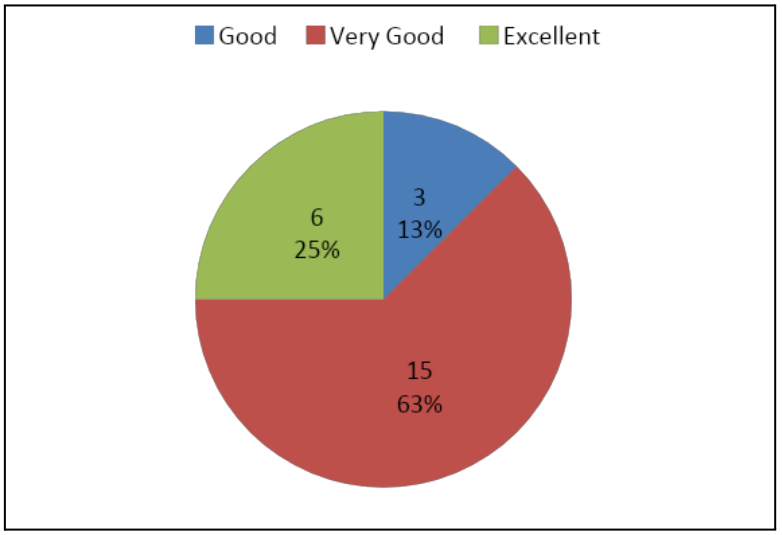
municipal and city agriculture offices, seven (31%) from local private/business organizations, four (17%) from local NGOs, and one (4%) from a multi-national private/business organization. The latter three types of organizations were all ATI-accredited private ESPs.

Figure 12
Employer/supervisor respondents in the survey



Knowledge on OA. When asked to rate their organizations/agencies' current knowledge on OA, 15 (63%) of the supervisors perceived their knowledge as very good, six (25%) as excellent, and three (12%) as good (Figure 13).

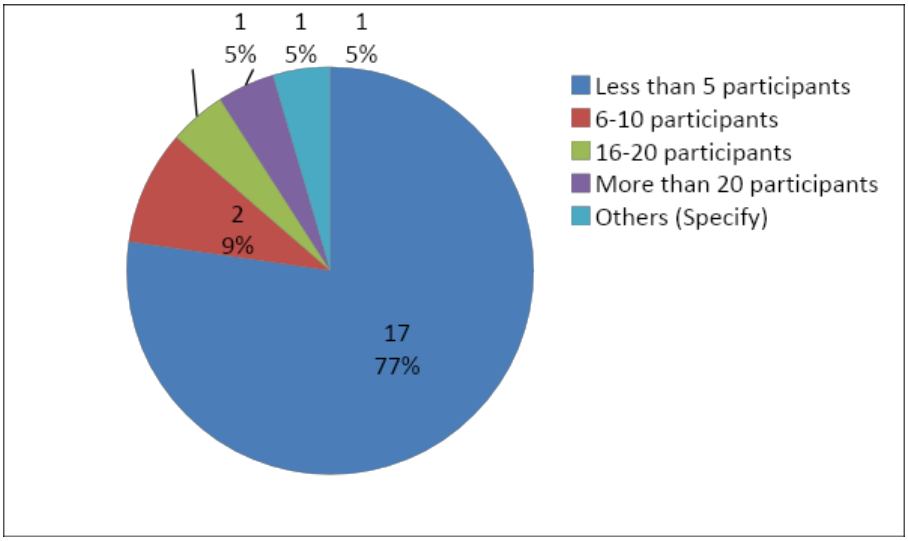
Figure 13
Perception of employers/supervisors of their organizations' knowledge on OA



Demand for OA capacity building

Interest in OA training or seminar. All supervisors responded positively to the idea of sending or allowing their personnel to attend a seminar, training, or short courses on OA. Figure 14 shows that majority (77%) of the respondents would allow less than five participants to attend the training. Some respondents noted that the type of training will determine how many participants they will send.

Figure 14
Number of participants employers will send to UPLB OA training



Preferred topics for OA training/seminar. Using the same list of topics under Table 6, the employers/supervisors were asked to identify the most preferred topics on organic agriculture to build for their personnel/staff. Their responses (Table 8) indicate that they were generally interested in 1) OA policies, standards and certification, 2) soils and nutrient management, and 3) organic crop production as their top three most preferred topics.

Table 8
Employers/supervisors' preferred topics on OA training/seminar for their staff

Topics	Frequency based on weighted scores of most preferred topics					Overall Score	Rank
	Most preferred (1)	2nd Most preferred (0.9)	3rd Most preferred (0.8)	4th Most preferred (0.7)	5th Most preferred (0.6)		
Organic crop production	6	1.8	0	1.4	0.6	9.8	3
Organic animal production	2	3.6	0.8	0.7	1.8	8.9	5
Organic pest and disease management	1	2.7	3.2	1.4	0.6	8.9	5
Production of organic fertilizers and soil amendments	-	1.8	2.4	4.2	0	8.4	6
Soils and nutrient management	3	0.9	3.2	0.7	4.2	12.0	2
Post harvest crop and animal management	-	0.9	2.4	2.8	0.6	6.7	7
Processing of organic agricultural products	1	0.9	3.2	2.1	1.2	8.4	6
Policies, standards and certification	4	3.6	1.6	1.4	1.8	12.4	1
Agribusiness, marketing, and entrepreneurship	5	3.6	0	0	0.6	9.2	4
Other topics not listed above (specify)	-	0	0	0	0	0.0	-

Moreover, they added other skills and competencies that they thought would be desirable, such as the following: production of biopesticides or organic bio-control agents; good regulatory practice; new technologies/trends in organic agriculture; forecasting of cropping seasons; aquaculture; and community organizing.

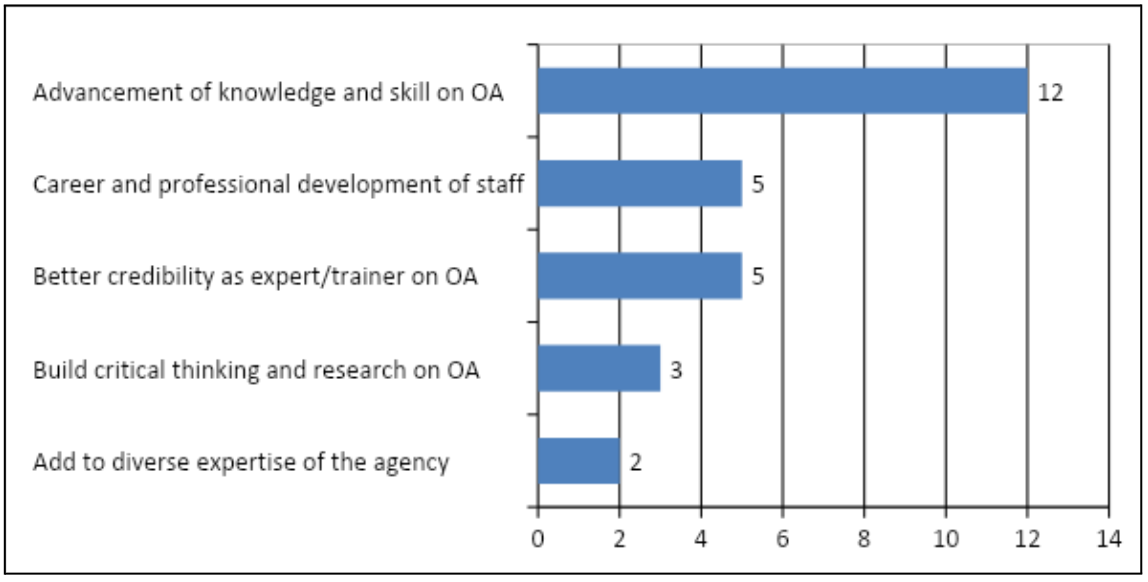
Demand for OA advanced courses

Interest in OA advanced courses. Almost all of the respondents (91%) agreed to sending or allowing their employees/staff to UPLB's master's degree program related to OA (Table 9). Likewise, the majority (61%) were in favor of sending interested staff to pursue the doctoral degree program. They were interested in the advancement of the knowledge and skills, as well as career development of their staff that eventually will result in the establishment of better credibility of their agency/organization as extension providers with OA expertise (Figure 15). While those who answered negatively were not against the offer, they could not commit to sending their staff due to lack of time and conflict of schedules.

Table 9
Response of employers/supervisors whether they are interested to take advanced courses on OA or not

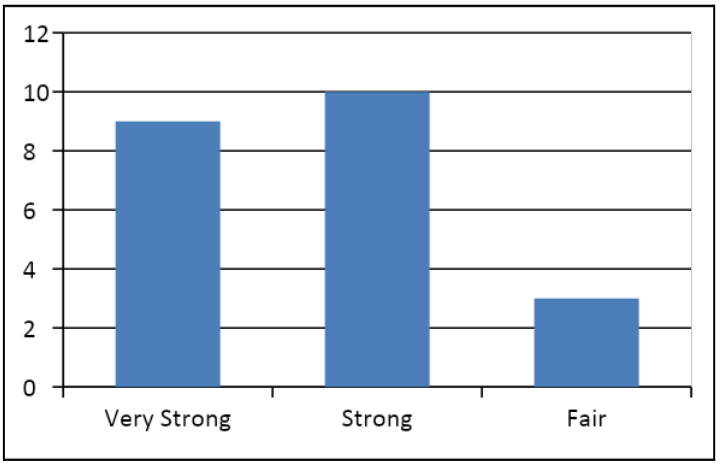
OA Advanced courses (n=23)	**Frequency**	**Percentage**
Masteral Degree Program		
Yes	21	91.3
No	2	8.7
Doctoral Degree Program		
Yes	14	60.9
No	6	26.1
Conditional	1	4.3
No response	2	8.7

Figure 15
Reasons for sending staff to UPLB's advanced courses on OA



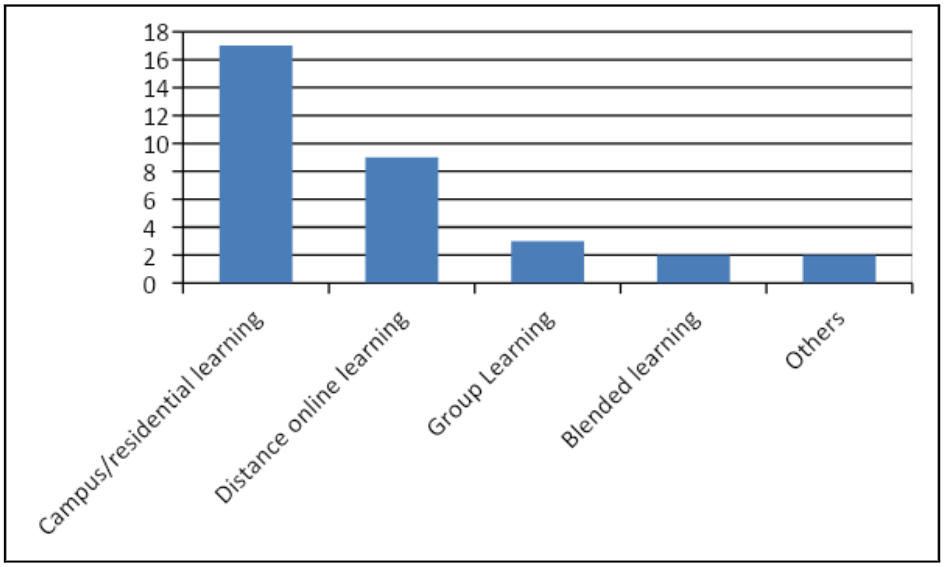
Motivation to build staff competence on OA. Employers/supervisors were strongly motivated to send their employees/staff to the capacity building and advanced courses in OA of UPLB to enhance their competency (Figure 16). They believed that improved staff capability results in increased organizational productivity relative to their functions in the practice and promotion of OA.

Figure 16
Employers' motivation to sending their employees to UPLB capacity building and masteral and doctoral degree programs



Preferred learning methods. From the same list of learning methods in Figure 9 that may be used for prospective students, the top choice of employers was campus/residential learning method. This was followed in order by distance learning, group learning and blended learning methods, respectively (Figure 17).

Figure 17
Employers' preferred learning methods for UPLB capacity building and advanced courses on OA.



Work and incentives after training/masteral/doctoral degree programs. Supervisors had high expectations of the staff they will send to undertake capacity building and advanced courses on OA. Thus, after completing the courses, graduates would be given critical work assignments

specified in Table 10. In return, employers will reward them with promotion and increased compensation.

Table 10
Work of prospective students after OA capacity building and advanced courses

Work after training	Work after master's degree	Work after doctoral degree
● Act as Resource Persons/Lecturers on OA topics during trainings/seminars/farm visits, such as training of trainers and of farmers ● Project/Training Officer on OA Projects/trainings ● Field extension ● Apply the knowledge, skills and discipline gained in the field or station ● Implementation of better OA protocols	● Supervising (Section Chief); ● Act as Resource Persons/Lecturers on OA ● Main proponent/lead resource persons for organic agriculture PAPS ● Act as focal persons in OA Program ● Farm management ● Engage in the ISO HACCP Certification / Accreditation ● Conduct research on OA ● Lead in OA advocacy work	● Supervising (Division Chief)/higher management ● Act as Lead Resource Persons/Lecturers on OA ● Development of resource/reference materials on OA ● Lead in the conduct of OA research ● Provision of OA Consultancy ● Act as focal persons in OA Program

CONCLUSION AND RECOMMENDATIONS

The study surveyed prospective students who were found to be mostly young, single, female government agriculture workers, primarily employed as agriculturists and other related designations. They hold degrees in agriculture and agriculture-related fields, with many possessing both baccalaureate and master's degrees, and majority are licensed professionals. Additionally, a significant number have attended agriculture training and acquired certificates of competency in organic agriculture (OA). These individuals are actively involved in promoting OA due to their job roles and the mandates of the OA Law. These findings underscore the importance of considering their educational background, professional experience, and training in OA when developing tailored curricula for capacity building and advanced courses in OA at institutions such as UPLB.

The demand for capacity building and advanced courses is substantial, as reflected in numerous respondents expressing interest in attending training sessions, seminars, and pursuing master's and doctoral degrees. Practically, the number of interested candidates is sufficient for UPLB to justify offering these programs, which normally require at least 10 enrollees per semester. Those with existing master's degrees are more inclined to pursue doctoral programs and additional training rather than another master's degree. The primary motivation for enrolling in these programs is to enhance skills and capacities relevant to their work, with secondary motivations including career advancement and contributing to OA. These findings indicate that the programs are likely to be successful due to the strong motivation and determination of the prospective students.

Employer responses were also highly favorable towards offering capacity building and advanced courses in OA, with all supervisors willing to support their staff's enrollment. This consensus suggests minimal obstacles for employees wishing to pursue further education. The motivations

of employers align with those of the employees, emphasizing agreement for skills development and professional advancement. The preferences expressed by both groups regarding training topics and learning methods will guide UPLB in prioritizing and planning its OA programs. Considering UPLB's influence as a national agricultural university, similar studies at other higher education institutions are recommended to assess the broader demand and feasibility of such programs. These will potentially lead to varied results that could impact decisions to offer these courses.

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