## BIBLIOGRAPHY

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Adviser: Andrew K. Del-ong, BSc


#### Abstract

This study was conducted at the major ornamental potted plants production and marketing areas in Baguio City in order to get base line information on the industry, to identify who are the producers including their locations, to identify the kinds and the outlets of potted plants they produce, and to determine the marketing strategies employed and the problems they encountered. A total of 44 respondents were interviewed with the aid of a questionnaire.

The respondents were classified into producers, retailers, and producer -retailers. Most of them are 40 years old and above although the retailers’ group were relatively younger (22-30 years old). Majorities are females; all underwent formal education with significant number earning a college diploma.

As to the length of period they are into the business, majority were engaged into potted plant business for 11 to 20 years due to the profit it offers and the satisfaction of their hobby. Almost all are sole proprietors who started business with an initial capital of Php 20,000 below using their own savings.


Majority of the producers and producer-retailers own their farm and are utilizing a land area lesser than $500 \mathrm{~m}^{2}$. Most of the farms are located in their backyards with a distance lesser than ten kilometers from the city market.

The commonly grown plants are cactus, foliage, flowering and fruiting ornamentals. Majority are produced and sold throughout the year. Most of the producers grow plants in an open field and source the water for irrigation from the water district and spring.

Most of them cater to the tourists and retailers in the locality. Majority don't deliver their products to other places they usually dispose it to their stalls or directly from their farms. They usually employ direct selling methods and face to face communication in promoting their products. The pricing strategy frequently employed was cost plus method and going market rate. Majority require their costumers to pay their products on cash basis upon pick-up.

Majority don't hire employees and they frequently encountered the problems on was the insect pest and diseases and lack of capital.

With these, the key players, government agency and private sector must collaborate in doing something to improve the quality of the products and the system used in the business in order to serve the niche market and to compete globally.

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## INTRODUCTION

## Rationale

Potting of ornamental plants is one of the specializations of Floriculture, and is dubbed as the Sunshine Industry of the Philippines. It continues to gain popularity and recognition in the country and in abroad.

Ornamental plants are synonymous with natural landscape. They nurture us physically and psychologically. They inspire us, refresh us, and regenerate our lives. They appeared to be parallel to people's attitude towards civility, taste, arts and religion (Ingles, 2001).

Beside the beauty and aesthetic value of ornamental plants, they are also important for their economic benefits. Production of propagating materials such as seeds, bulbs and live plants conventionally are being sold. In addition, the material used in growing plants such as pots, garden tools, fertilizers, mosses and accessories like jars, plastic dove and other materials are high in demand.

Ornamental plant industry gives great job opportunities and great potential for generating export income.

One principal center for ornamental production is the Cordillera Administrative Region (CAR) most especially the City of Baguio and the Province of Benguet, due to its perfect climatic condition.

Moreover, American and Japanese colonist brought varieties of plants that grew so well that they redefined farming options of people. In the process, they laid foundation for a new industry that gave the area new appellation "Salad Bowl of the Philippines" for
the municipality of La Trinidad and "City of Flowers" for Baguio City (Alejandro and Santos, 2001).

Finally, entrepreneurs began cultivating ornamental plants as cash crop and have shifted from their crowding vegetable business. Nowadays, ornamental plant production is the second most important industry of Benguet. It is also a basis of Baguio City in conducting its yearly celebration of "Panagbenga" or Baguio Flower Festival.

## Importance of the Study

This would help the key players/stakeholders of the industry. They would be able to determine where to buy and sell ornamental plants effectively and efficiently. It would enable the stake holders to improve the business operation activities to attain maximum level of income and to give possible answer to existing problem. This may also generate employment opportunities because it could reveal the number and skills of employees needed by the firms. Moreover, the result of the study could be important in planning, policy formulation, and project proposal development of the ornamental potted plant industry. This will serve as a reference for other people who would like to further study the industry.

## Statement of the Problem

Basic requirement in proposal development or even in the preparation of the feasibility study for developmental projects are baseline information. This deals with a Benchmark study on the Ornamental Potted Plants in Baguio City specifically it would try to answer the following questions:

1. Who are the major ornamental plant producers in Baguio City and where are they located?
2. What kind of ornamental potted plants they produce?
3. Where is the market outlets of ornamental potted plants produced?
4. What are the marketing strategies employed?
5. What are the problems encountered in the industry?

## Objectives of the Study

Generally, this study aimed to establish baseline information on ornamental potted plant in Baguio City. Specifically, it attempted to do the following:

1. Identify and characterize the ornamental plant producers in Baguio City and their locations
2. Identify the kind of ornamental potted plants they produce;
3. Identify the market outlets for the said ornamentals;
4. Find out the marketing strategies employed;
5. Identify the problems encountered in the industry.

## Scope and Limitations of the Study

The study was conducted in major marketing and production areas in Baguio City specifically Mines View Park, Wright Park, City Orchidarium, Barangay Gibraltar, Camp 7, Pacdal, and Lucnab respectively. The study focused on the ornamental potted plant producers, the kind of ornamental plants they produce, the marketing strategies employed, and their market outlet.

Small scale or backyard producers should have been included for a more comprehensive result, however, financial and time constraint prevented the researcher to do so.

## REVIEW OF LITERATURE

The floriculture industry started as home yard operation and evolved into profitable business for small and medium entrepreneurs. These led to expansion of various industries such as real estate development, growth of tourism industry and the increasing demand of neighboring countries for ornamentals (Naranja, 2007).

The future outlook for ornamental production is bright, as an economic recovery continues in US and Europe, the primary export markets, floricultural production bound to expand. With marginal operators out of business, companies remain optimistic about future expansion of the market and their operations (Anonymous, 1995).

Flowering and green potted plants are the next most important floriculture crop worldwide (Anonymous, 1995). A large proportion of ornamental potted plants produced in developed countries are based on the import of plant materials from less developed countries and most "potted plants species" originated from less developed countries (Jorgensen, 2009).

The Philippine Ornamental Industry continues to gain popularity and recognition in the country and more so abroad. The increasing demand for ornamentals has been one of the pressing issues faced by the ornamental sector today making it self-sufficient, sustainable and diversified (Hernandez, 2007). Therefore, there is an immense scope for its expansion. If floriculture is developed on its industry pattern scientifically, it will flourish and generate tremendous income (Aurora, 1990). Since its incipient stage has been unable to fully meet an increasing domestic demand. Thus, a substantial portion of that demand has been met through importation. But the industry has remarkably
improved over the past decades and has been steadily growing through the years (Anonymous, 2009).

According to Naranja (2007) the highest export earnings from ornamental plants came from other live plants at an average of \$529,114 annually for the period of nine years (1991-2000). It ranked number 55 exporters to Netherlands with 76.38 growth rate (1997-2001). Fresh foliage is the second with a value of $\$ 523.824$, fresh cut flowers and flower buds is third ( $\$ 371,281$ ). The country export market for ornamental plants has always been dominated by Japan. The second major export market is the United States, while South Korea ranks third. These are followed by the Netherlands and Canada (Anonymous, 2009).

The country spent an average of US \$769,890 annually for the importation of ornamental plants from 1991-2001. Major imported ornamental plants were live plants including cutting and slips (39.8\%), orchids (23.9\%) fresh flower and buds (16.5\%), processed cutflower and buds, (3.64\%) and anthuriums (11.89\%). Leading suppliers were Thailand (26.8\%), the Netherlands (21.7\%), Israel (20.6\%), Malaysia (9.4\%), and the United States (5.1\%).

Under Philippine condition, small producers can be classified as those with growing area less than 500 m 2 , medium growers are those with more than 500 m 2 to one hectare are, and large operators are those with more than one hectare production area. Usually, the large or corporate producers serve as the nucleus unit, which establishes satellites with small and medium operators who become contract growers. These corporate operators are mostly exporters who have the information on the market
demand, both in terms of quality and quantity. Presently, the small garden-type farm still dominates the industry (Naranja, 2007).

Among these large producers are the King Louis Flowers and Plants and the Highland Crops and Cut Flowers Association in Baguio City; Unigreen in Batangas, one of the largest exporters of foliage and live plants to Japan and Korea; Worldwide Derling and Puentespina Orchids and Tropical Plants in Davao City, two of the largest ornamental plant producers in Mindanao. The principal center for ornamental production by region includes Cordillera Administrative Region (CAR), Central Luzon, Southern Tagalog, Northern and Central Mindanao (Naranja, 2007).

In addition, corporate operators could also be cooperatives composed of small and medium growers. However, in this type of operation, production is usually not sufficient to satisfy the requirement. They are capable of exploring the foreign market but still cannot fill the required volume. They resort to accepting produce from non-members of the cooperative; however, priority is given to the produce of members who also directly participate in the income of cooperatives.

Specifically for cut flowers, small producers who grow flowers solely or as intercrops with vegetables and other cash crops supply the bulk of the cut flowers traded in the domestic market. The big growers engaged in production of roses, orchids, anthuriums, chrysanthemum, a cursory survey of different nurseries producing mixed ornamental commodities conducted in 2001 by Rimando and Chavez shows that more than $60 \%$ of their inventories consist of potted foliage, flowering pot plants, and other landscape materials such as evergreen or flowering shrubs or trees. Foliage plants grown under full sun include palms, Ficus, Dracaena, junipers, crotons, pines, Cycas, bamboo,
tea plants, agave, and Sanseveria. The foliage plants that prefer partial shade and are suitable for interiorscapes are Aglaonema, Philidendron, Calathea, Maranta, ferns, begonia, Dieffenbachia, Peperomia, foliage, Anthurium, and some Dracaena (Rosario and Aurigue, 2001).

The climate of Benguet is characterized by pronounced wet and dry seasons with temperature ranging from 8-26 degrees Celsius making the province suitable for ornamental production (Nagpala, 2007)

One cannot think Baguio City and its environs without thinking of flowers at the same time. In many ways, the floral legacy we honor speaks not only a way of life borne of the molding of our own land roots, foreign origin and highland home. But it also captures the parallel evolution of flowers industry that continues to enrich with each variety that blooms in our fair city (Alejandro and Santos 2001).

Baguio's love affair with plants dates back to the city foundation and from then on living plants became a way of life -the Botanical Garden, Camp John Hay forest reserve, the Flower Market, the Orchidarium, extra spacious front yard and its countless parks. Big or small, through unique style of landscaping has evolved and became popular throughout Baguio (Alejandro and Santos 2001).

## METHODOLOGY

## Locale and Time of the Study

The study was conducted on the different production areas in Baguio City specifically barangays: Gibraltar, Camp 7, Pacdal and Lucnab as well as the major market outlets namely: Mines View Park, Wright Park, and City Orchidarium, from November to December 2009.

## Respondents of the Study

All producers in the major production areas as well as the stall owners and/ or operators in major markets of Baguio City were respondents of this study. A total of 44 respondents were classified as producers, producer- retailers and retailers

## Data Collection

The respondents were interviewed personally by the researcher using the prepared interview schedule. Secondary information was gathered from the Department of Agriculture- CAR, Local Government Unit, Bureau of Plant Industry, and the Department of Trade and Industry- CAR.

## Data Gathered

The data gathered includes the socio-demographic and economic profile of the respondents; the kinds of ornamental plants they are producing including their market outlets; and the problems they are encountering.

## Data Analysis

The data collected were consolidated, tabulated and analyzed using appropriate statistical tools such as frequency counts, mean and percentage.


## RESULTS AND DISCUSSION

As shown in Table 1, the 44 respondents were classified according to their role and function; these were producer-retailers (43.72\%), retailers (29.55\%) and producers (22.73\%). Result implies that most of the respondents produce and sell their own products.

These number of respondents are not yet complete with respect to the sum total of key players in Baguio City since it focused only on the major locations and it excludes some related business such pottery, seeds, compost, and other decoration. But to compare it with the record from DTI as of 2008, it revealed that only 11 ornamental plant businesses were registered; 6 from potted plants and 5 from cut flowers or flower shops. This reveals that majority of plant businesses were not registered to the DTI.

## Socio Economic Profile of the Respondents

This section presents the socio-economic profile of the respondents which include their distribution according to their age, educational attainment, sex, type of business, initial capital, their source of capital, their number of years in the business and their reasons in engaging in potted plant business. The source of income of the respondents was not included on the table because all the respondents depend on potted plants business as their source of income.

Age. As shown in Table 2, the youngest of the respondents is 22 years old and the oldest is 83 years old indicating that people engaged in potted plants industry in the city of Baguio includes young adults up to senior citizens. Half (50\%) of the producer's falls within the age range of 58 to 66 years old. On the other hand, majority (46.16\%) of the retailers is relatively younger (22-30 years old).

Table 1. Distribution of the respondents according to their roles and functions

| PARTICULAR | FREQUENCY | PERCENTAGE |
| :---: | :---: | :---: |
| Producers | 10 | 22.7 |
| Retailers | 13 | 29.6 |
| Producer -Retailers | 21 | 47.7 |
| TOTAL | 44 | 100 |

For the producer-retailer group, almost all are 40 years old and above. Results also show that the mean age of the respondents is 48.81 .

The results further show that ornamental potted plant industry is compost mostly of the middle aged people and senior citizens except for the few young adults. This also implies that the middle aged people are more interested in ornamental plant business than young ones. The results also show that old age is not a hindrance in engaging in the business.

Sex. Females dominate the industry (80\%). This may imply that females are more interested in ornamental potted plants business than males.

Educational attainment. Majority of the producers (70\%) reached and finished high school while retailers (38.46\%) and producer-retailers (47.62\%) reached and finished college. Most of the respondents (43.18\%) reach and finished high school. A significant $36.36 \%$ reached college. Results on their level of education favors on their vocation for according to studies, literate people are more receptive. Education is an advantage in managing business and enables individuals understands business transactions.

Table 2. Distribution of respondents according to socio-economic profile

| PARTICULARS | PRODUCERS |  |  PRODUCER- <br> RETAILERS RETAILERS |  |  |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | \% | F | \% | F | \% | F | \% |
| Age |  |  |  |  |  |  |  |  |
| 22-30 | 1 | 10 | 6 | 46.16 | - | - | 7 | 15.9 |
| 31-39 | 1 | 10 | - | - | 1 | 4.76 | 2 | 4.54 |
| 40-48 | 1 | 10 | 3 | 23.08 | 8 | 38.1 | 12 | 27.28 |
| 49-57 | 1 | 10 | 3 | 23.07 | 6 | 28.58 | 10 | 22.74 |
| 58-66 | 5 | 50 |  | - | 3 | 14.28 | 8 | 18.18 |
| 67-75 |  |  | 1 | 7.69 | 3 | 14.28 | 4 | 9.09 |
| 76-83 | 1 | 10 | - | - | - | - | 1 | 2.27 |
| TOTAL | 10 | 100 | 13 | 100.00 | 21 | 100 | 44 | 100 |
| Sex |  |  |  |  |  |  |  |  |
| Male |  | - | 1 | 7.7 | 3 | 14.28 | 4 | 20 |
| Female | 10 | 100 | 12 | 92.3 | 18 | 85.72 | 40 | 80 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Educational attainment |  |  |  |  |  |  |  |  |
| Elementary | 2 | 20 | 4 | 30.77 | 2 | 9.52 | 8 | 18.18 |
| High School | 7 | 70 | 4 | 30.77 | 8 | 38.1 | 19 | 43.18 |
| College | 1 | 10 | 5 | 38.46 | 10 | 47.62 | 16 | 36.36 |
| Vocational |  | - |  | - | 1 | 4.76 | 1 | 2.28 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Number of years in business |  |  |  |  |  |  |  |  |
| less than 10 | 3 | 30 | 8 | 61.54 | 6 | 28.57 | 17 | 38.64 |
| 10 to 20 yrs . | 4 | 40 | 2 | 15.38 | 12 | 57.14 | 19 | 43.17 |
| 20 to 30 yrs . | 1 | 10 | 3 | 23.08 | 3 | 14.29 | 6 | 13.64 |
| 31 and above | 2 | 20 | - | - | - | - | 2 | 4.55 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |

Table 2. continued...

| PARTICULARS | PRODUCERS |  |  PRODUCER - <br> RETAILERS RETAILERS |  |  |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | \% | F | \% | F | \% | F | \% |
| Type of business |  |  |  |  |  |  |  |  |
| Sole proprietorship | 10 | 100 | 11 | 84.62 | 21 | 100 | 42 | 95.46 |
| Partnership | - | - | 2 | 18.38 | - | - | 2 | 4.54 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Initial capital |  |  |  |  |  |  |  |  |
| 20,000 and below | 9 | 90 | 9 | 69.23 | 11 | 52.38 | 29 | 65.91 |
| 20,001-40,000 | 1 | 10 | 4 | 30.77 | 6 | 28.57 | 11 | 25 |
| 40,001-60,000 |  |  |  |  | 3 | 14.29 | 3 | 6.82 |
| 60,001 and above |  |  |  | - | 1 | 4.76 | 1 | 2.27 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Source of capital |  |  |  |  |  |  |  |  |
| Savings | 10 | 100 | 7 | 46.66 | 18 | 69.23 | 35 | 68.64 |
| Borrowed from Coop |  | - | 6 | 40 | 3 | 11.54 | 9 | 17.64 |
| Loan from bank |  | - | 1 | 6.67 | 2 | 7.69 | 3 | 5.88 |
| Borrowed from informal lender |  |  | 1 | 6.67 | 3 | 11.54 | 4 | 7.84 |
| TOTAL | 10 | 100 | 15 | 100 | 26 |  | 51 | 100 |
| Reasons for engaging in potted plants business |  |  |  |  |  |  |  |  |
| Hobby | $7$ | 50 | 3 | 16.67 | 9 | 24.32 | 21 | 29.58 |
| Profit | 4 | 28.57 | 10 | 55.55 | 12 | 32.43 | 26 | 36.62 |
| Relevant skill and talent | - | - | 3 | 16.67 | 4 | 10.81 | 7 | 9.85 |
| Influence of family | 2 | 14.29 | - | - | 9 | 24.32 | 11 | 15.5 |
| Promising demand | - | - | 2 | 11.11 | 3 | 8.1 | 5 | 7.05 |
| Therapeutic effect | 1 | 7.14 | - | - | - | - | 1 | 1.4 |
| TOTAL | 14 | 100 | 18 | 100 | 37 | 99.98 | 71 | 100 |

Type of business. Except for the retailer groups were 4.54\% are partnerships, all of the businesses in potted plants in Baguio City are sole proprietorships.

Initial capital. Majority of the respondents (65.91\%) started their business with a capital of Php 20,000 and below. Results indicate that ornamental potted plants business doesn't require much capital to start up operation.

Source of capital. Majority (68.64\%) of the respondents sourced out their capital from their own savings. The rest borrowed it from cooperatives (17.64 \%), from informal lenders (7.84\%), and loan from banks (5.88\%).

Number of year in the business. As to the number of years in the business, results shows that more of the respondents ( $43.17 \%$ ) were into the business for around 11 to 20 years with an average of 16.59 years.

The results show that potted plant industry in Baguio City started many years ago with $4.55 \%$ engaged in the business for almost 30 to 40 years. It also shows that people are aware of the economic importance of potted plants. According to Alejandro, Baguio's love affair with flowers dates back to the city's foundation and from then on, living plants become a way of life. This is also in connection with what an author said that since its incipient stage has been unable to fully meet an increasing domestic demand. Thus, a substantial portion of that demand has been met through importation. But the industry has remarkably improved over the past decades and has been steadily growing through the years (Anonymous, 2009).

Reasons in engaging in potted plants business. As to the reasons why the respondents engaged in the business, majority (70\%) of the producers producing
ornamental plans says it's their hobby. While most of the retailers (55.55\%) and producer-retailers (32.62\%) engaged in the business due to the profits it offers.

In general, most (36.62\%) engaged in the business due to profit, $29.58 \%$ because it's their hobby, $15.5 \%$ due to the influence of their family and friends, $9.85 \%$ due to their relevant skill and $7.05 \%$ due to its promising demand.

## Farm Profile of the Respondents.

This section presents the farm profile of the respondents (Table 3) which includes the location of the farms/production areas, their distance of farm from Baguio public market, and from their own residence, land ownership and tenure and the total area they occupy. Retailers were not included in this section since they don't plant ornamental, thus they don't own farm.

Farm location. As to the location of the farm of the producers, they are located at Barangay Gibraltar (30\%), Pacdal (30\%), and Camp 7 (30\%) with a few (10\%) located in Pucsusan. For the producer-retailers a significant (23.81\%) were located at Gibraltar others are located at Pacdal (14.28\%),Outlook Drive (9.68\%), Balacbac (9.68\%), Mines View (9.68\%), Lucnab and General Luna both (6.52\%). However, it is significant to note that $14.29 \%$ and $9.52 \%$ have farms that are located outside the city, particularly in nearby province of Benguet and La Union respectively.

These was related to the details given by Dr. Divina Calado Jose, a researcher from BPI-BNCRDC, that the production area in Baguio City includes Camp 7, Mines View, Lualhati, Outlook Drive, Irisan and Asin which been supported by the data from DTI and Barangay Captains that includes Pucsusan, Camp 7, Sto. Thomas School Area, Burnham-Legarda, Loakan, Irisan, and Asin.

Table 3. Distribution of the respondents according to their farm profile

| PARTICULAR | PRODUCER - |  |  |  |  | TOTAL |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PRODUCERS |  | RETAILERS |  | F | $\%$ |  |
| Farm Location | F | $\%$ | F | $\%$ |  |  |  |
| Gibraltar | 3 | 30 | 5 | 23.81 | 8 | 25.81 |  |
| Outlook drive | - | - | 2 | 9.52 | 2 | 6.45 |  |
| Lucnab | - | - | 1 | 4.76 | 1 | 3.23 |  |
| Camp 7 | 3 | 30 | - | - | 3 | 9.68 |  |
| Pucsusan | 1 | 10 | - | - | 1 | 3.23 |  |
| Mines View | - | - | 2 | 9.52 | 2 | 6.45 |  |
| Balacbac | - | - | 2 | 9.52 | 2 | 6.45 |  |
| Pacdal | 3 | 30 | 3 | 14.29 | 6 | 19.35 |  |
| Gen. Luna | - | - | 1 | 4.76 | 1 | 3.23 |  |
| Benguet | - | - | 3 | 14.29 | 3 | 9.68 |  |
| La Union | - | - | 2 | 9.52 | 2 | 6.45 |  |
| TOTAL | 10 | 100 | 21 | 100 | 31 | 100 |  |
| Distan |  |  |  |  |  |  |  |

Distance of farm from
Baguio Public Market

| Lesser than 5 km | 6 | 60 | 8 | 38.1 | 14 | 45.16 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 to 10 km | 4 | 40 | 10 | 47.62 | 14 | 45.16 |
| 11 to 15 km | - | - | 1 | 4.76 | 1 | 3.23 |
| above 15 km | - | - | 2 | 9.52 | 2 | 6.45 |
| TOTAL | 10 | 100 | 21 | 100 | 31 | 100 |
| Distance of farm |  |  |  |  |  |  |
| from their residence |  |  |  |  |  |  |
| $\quad$ Lesser than 1 km | 10 | 100 | 15 | 71.43 | 25 | 80.64 |
| 1 to 5 km | - | - | 3 | 14.28 | 3 | 9.67 |
| 6 to 10 km | - | - | 1 | 4.76 | 1 | 3.22 |
| above 10 km | - | - | 2 | 9.52 | 2 | 6.45 |
| TOTAL | 10 | 100 | 21 | 99.99 | 31 | 99.98 |

Table 3. continued...

| PARTICULAR | PRODUCERS |  | PRODUCER - <br> RETAILERS |  | TOTAL |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | $\%$ | F | $\%$ | F | $\%$ |
| Land Ownership |  |  |  |  |  |  |
| Owned | 9 | 90 | 17 | 80.95 | 26 | 83.87 |
| Rented | 0 | 0 | 3 | 14.29 | 3 | 9.68 |
| Caretaker | 1 | 10 | 1 | 4.76 | 2 | 6.45 |
| TOTAL | 10 | 100 | 21 | 100 | 31 | 100 |
| Total Area Occupied |  |  |  |  |  |  |
| 500m2 and below | 9 | 90 | 11 | 52.38 | 20 | 64.52 |
| 501m2-1 hectare | 1 | 10 | 7 | 33.33 | 8 | 25.81 |
| 1 hectare and above | - | - | 3 | 14.29 | 3 | 9.68 |
| TOTAL | 10 | 100 | 21 | 100 | 31 | 100 |

Distance of farms from Baguio City public market. For sole producers, majority (60\%) of their farms are located less than 6 km from the Baguio City public market and the remaining $40 \%$ are between 6 km to 10 km from the city market. For the producer retailers group, most (47.62\%) are located 6 km to 10 km away from the city market, while significant $38.1 \%$ are less than 6 km away, $9.52 \%$ are above 15 km and the remaining $4.76 \%$ are at a distance of 11 km to 15 km away from the city market.

In general, majority of the respondents are located less than 5 km (45.16\%) and 6 km to 10 km (45.16\%) away from the city market. This shows that ornamental potted plant farms are near to the major marketing outlets.

Distance of farm from own residence. All of the producers (100\%) and majority of the producer-retailers (71.43\%) have their farms located less than 1 km away residence. This shows that most of the respondents cultivate potted plants on their backyard or what we call "backyard garden" this collaborates to the study of Naranja
(2007) that "the industry started as a home yard operation and evolved into a profitable business".

Land ownership and tenure. Majority (79.54\%) of the producers and producer retailers owned their farms. The rest rented (9.68) or entrusted/ caretakers (6.45 \%).

Total area occupied. Majority of the respondents (75\%) claimed to be utilizing a land area lesser than $500 \mathrm{~m}^{2}$. The data supports why the respondents owned the land they used in production of ornamental potted plants. Most of the respondents are small producers. According to Nagpala (2007), small producers can be classified as those with growing area less than $500 \mathrm{~m}^{2}$, medium producers are those with more than $500 \mathrm{~m}^{2}$ to one hectare and large operators are those with more than one hectare production area. . Usually, the large or corporate producers serve as the nucleus unit, which establishes satellites with small and medium operators who become contract growers. These corporate operators are mostly exporters who have the information on the market demand, both in terms of quality and quantity. Presently, the small garden-type farm still dominates the industry.

## Kinds of Ornamental Plants

Table 4 shows the ornamental plants commonly planted and sold and the criteria used in selecting plants for sale.

Ornamental plants commonly planted and sold. The ornamental plants commonly planted are cactus, foliage, flowering and fruiting ornamentals. For cactus, succulents are the most common followed by rare cactus (59.09\%) and euphorbia (31.82\%). It is significant to note that for pure retailers, the most common is rare cactus (92.31\%). For flowering plants, the most common are Anthuriums (65.91\%); followed by Impatience

Milflores, Gumamela, Azalea, Marigold, Bougainvillea and Japanese Anthuriums; Roses, Malaysian mums, Begonia and Salvia; Dancing lady and Daisy. For the foliage group, the most common are Cereza bonsai (72.33\%), Bromeliads (70.45\%), Fortune plants and kutcharita (both 61.76\%), and Peperomea (56.82\%). For the fruiting group, the most common are Money Trees (72.73\%) as these are the most popular ones among consumers, Jerusalem berries (40.91\%), and Korean Pepper (31.82\%).

Table 4. Distribution of the respondents according to the ornamental plants commonly planted and sold and the criteria used in selecting plants for sale

| PARTICULARS | PRODUCERS |  | RETAILERS |  | PRODUCER- <br> RETAILERS |  | TOTAL |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | $\%$ | F | $\%$ | F | $\%$ | F | $\%$ |
|  |  |  |  |  |  |  |  |  |
| Cactus |  |  |  |  |  |  |  |  |
| Socculent | 7 | 70 | 8 | 61.54 | 14 | 66.67 | 29 | 65.91 |
| Rare cactus | 3 | 30 | 12 | 92.31 | 11 | 52.38 | 26 | 59.09 |
| Euphorbia | 1 | 10 | 7 | 53.85 | 6 | 28.57 | 14 | 31.82 |
| Flowering Plants |  |  |  |  |  |  |  |  |
| Anthuriums | 5 | 50 | 8 | 61.54 | 16 | 76.19 | 29 | 65.91 |
| Impatients | 4 | 40 | 6 | 46.15 | 11 | 52.38 | 21 | 47.73 |
| Milflores | 3 | 30 | 7 | 53.85 | 11 | 52.38 | 21 | 47.73 |
| Gumamela | 3 | 30 | 8 | 61.54 | 10 | 47.62 | 21 | 47.73 |
| Dancing Lady | 2 | 20 | 6 | 46.15 | 8 | 38.1 | 16 | 36.36 |
| Rose | - | - | 9 | 69.23 | 8 | 38.1 | 17 | 38.64 |
| Malaysian | 1 | 10 | 8 | 61.54 | 8 | 38.1 | 17 | 38.64 |
| Japanese | 4 | 40 | 6 | 46.15 | 8 | 38.1 | 18 | 40.91 |
| Anthuriums |  |  |  |  |  |  |  |  |
| Begonia | 6 | 60 | 6 | 46.15 | 5 | 23.81 | 17 | 38.64 |
| Azalea | 4 | 40 | 8 | 61.54 | 9 | 42.86 | 21 | 47.73 |
| Salvia | 6 | 60 | 5 | 38.46 | 6 | 28.57 | 17 | 38.64 |
| Bougainvillea | 3 | 30 | 8 | 61.54 | 7 | 33.33 | 18 | 40.91 |
| Marigold | 4 | 40 | 9 | 69.23 | 6 | 28.57 | 19 | 43.18 |
| Daisy | 5 | 50 | 5 | 38.46 | 6 | 28.57 | 16 | 36.36 |

Table 4. continued...

| PARTICULARS | PRODUCERS |  | RETAILERS |  | PRODUCERRETAILERS |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | \% | F | \% | F | \% | F | \% |
| Foliage |  |  |  |  |  |  |  |  |
| Kutcharita | 6 | 60 | 9 | 69.23 | 12 | 57.14 | 27 | 61.36 |
| Bromeliads | 6 | 60 | 10 | 76.92 | 15 | 71.43 | 31 | 70.45 |
| Ceresa Bonsai | 4 | 40 | 8 | 61.54 | 20 | 95.24 | 32 | 72.73 |
| Dracaena | 5 | 50 | 9 | 69.23 | 13 | 61.9 | 27 | 61.36 |
| Peperomia | 4 | 40 | 7 | 53.85 | 14 | 66.67 | 25 | 56.82 |
| Fruiting ornamentals |  |  |  |  |  |  |  |  |
| Money Tree | 5 | 50 | 10 | 76.92 | 17 | 80.95 | 32 | 72.73 |
| Jerusalem berries | 1 | 10 | 8 | 61.54 | 9 | 42.86 | 18 | 40.91 |
| Korean Pepper | - | - | 7 | 53.85 | 7 | 33.33 | 14 | 31.82 |
| Criteria in Selecting |  |  |  |  |  |  |  |  |
| Plants for sale |  |  |  |  |  |  |  |  |
| Size | 4 | 14.81 | 8 | 40 | 10 | 33.33 | 22 | 28.56 |
| Appearance | 10 | 37.04 | 10 | 50 | 18 | 60.01 | 38 | 49.35 |
| Health | 1 | 3.7 | 1 | 5 | 1 | 3.33 | 3 | 3.9 |
| With flowers | 8 | 29.63 | - | - | 1 | 3.33 | 9 | 11.69 |
| Price | 1 | 3.7 | 1 | 5 | - | - | 2 | 2.6 |
| Customer choice | 3 | 11.11 | - | - | - | - | 3 | 3.9 |
| TOTAL | 27 | 99.99 | 20 | 100 | 30 | 100 | 77 | 100 |

Results of the study imply that a wide range of potted ornamental products are produced and sold. Both the producers and producer - retailers employed multi-cropping in order to produce different varieties at the same time. This finding further support the cursory survey of different nurseries producing mixed ornamental commodities conducted in 2001 by Rimando and Chavez that showed that more than $60 \%$ of their inventories consist of potted foliage, flowering pot plants, and other landscape materials such as evergreen or flowering shrubs or trees.

As stated by Dr. Jose, the ornamental plant commonly produced in the city includes cactus, anthurium, gladiolus, mums, roses, bromiliads, gumamela, eugrivia, San

Francisco, and lilium. Moreover, she added that most of the seedlings of the plants grow were imported from US, Malaysia, Europe, Thailand, and Japan brought by OFW's, Foreigners, and Tourists. These was further explained by Mr. Arnold Aromin of the City Orchidarium who import different varieties of plants adaptable in the city and by Mrs. Bernadette Aquino, a producer from Camp 7, who claimed that the variety cultivated was source from Japan. Furthermore, these confirms the statement of Alejandro N. Santos (2001) that the "American and Japanese colonists brought varieties of plants that grew so well that redefined the farming options of the people".

On the other hand, Ms. Jennifer Lang-ay, a retailer from Wright Park, stated that some plants such as Malaysian mums, Milflores, Roses, and Asters were source from the municipality of La Trinidad. The bonsai or shrubs such as juniper, boxwood, Chinese holy and pycus were source from Bulacan. In addition, Mrs. Maria Luisa Patogan of City Orchidarium added that some varieties of bromeliads and orchids were source from Aurora Province.

As to the volumes of production or demands, they don't give an exact figure since most of them don't have records in their business transactions and they have different unit of measurement. They simply stated that the volume of production varies depends on the rate of the inventory turnover, supply and demand, space utilized and available capital.

Criteria in selecting plants for sale. The primary reasons considered by the respondents in selecting plants for sale are their over-all appearance (49.35\%) and size (28.56\%).

## Production Practices or Systems

Table 5 shows the frequency of production and sales, production methods used and sources of irrigation

Frequency of production and sales. For the producers, a total of $50 \%$ produce and sells seasonally, while the other half (50\%) are throughout the year. Only $15.385 \%$ of the retailers produce and sells seasonally, the rest (84.62\%) produce and sells throughout the year. For producer-retailers $27.28 \%$ of their production and sales is seasonal and the remaining $72.72 \%$ is throughout the year.

Those who produce and sell throughout the year, the primary reasons behind are adequacy of the products (52.38\%), and continues demand of the products (40.48\%). For those who produce and sell seasonally, main reasons are the seasonality of products (76.92\%) and seasonality of demand (23.08\%).

In general, majority (72.72\%) of the respondents produce and sell throughout the year. The rest produce and sell ornamental plant when said plants are in their production seasons or in demand.

Source of irrigation. Majority of the respondents (47.73\%) irrigate their farms from springs, $34.09 \%$ from water district and $15.9 \%$ rely on rain water. These reveal that majority of the respondents rely on natural sources for irrigation.

Production methods. Majority (49.06\%) of the respondents plants on open field, $26.41 \%$ cultivate them on greenhouse while $24.52 \%$ simply maintain their ornamental plants on their stalls.

Table 5. Distribution of the respondents according to the production system employed

| PARTICULARS | PRODUCERS |  | RETAILERS |  | PRODUCERRETAILERS |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | \% | F | \% | F | \% | F | \% |
| Frequency of production |  |  |  |  |  |  |  |  |
| Through out the year | 5 | 50 | 11 | 84.62 | 16 | 76.2 | 32 | 72.72 |
| Seasonal only | 5 | 50 | 2 | 15.38 | 5 | 23.8 | 12 | 27.28 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Reasons on why they produce throughout the year |  |  |  |  |  |  |  |  |
| Continues demand | 2 | 25 | 7 | 43.75 | 8 | 44.44 | 17 | 40.48 |
| Adequacy of product | 6 | 75 | 8 | 50 | 8 | 44.44 | 22 | 52.38 |
| Source of living |  |  | 1 | 6.25 | 2 | 11.12 | 3 | 7.14 |
| TOTAL | 8 | 100 | 16 | 100 | 18 | 100 | 42 | 100 |
| Reasons on why they produce seasonally |  |  |  |  |  |  |  |  |
| Seasonality of product |  | 66.7 | 2 | 66.66 | 4 | 100 | 10 | 76.92 |
| Seasonality of demand | 2 | 33.3 | 1 | 33.33 |  |  | 3 | 23.08 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Source of Irrigation |  |  |  |  |  |  |  |  |
| Rainfall | 1 |  | 1 | 7.69 | 5 | 23.82 | 7 | 15.9 |
| Spring | 7 | 70 | 1 | 7.69 | 13 | 61.9 | 21 | 47.73 |
| Water district | 2 | 20 | 11 | 84.62 | 2 | 9.52 | 15 | 34.09 |
| Deep well | 0 | 0 | 0 | 0 | 1 | 4.76 | , | 2.28 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Production methods |  |  |  |  |  |  |  |  |
| Green house | 4 | 33.33 | 0 | 0 | 10 | 35.71 | 14 | 26.42 |
| Open Field | 8 | 66.67 | 0 | 0 | 18 | 24.29 | 26 | 49.06 |
| Potted plants stall | 0 | 0 | 13 | 100 | 0 | 0 | 13 | 24.52 |
| TOTAL | 12 | 100 | 13 | 100 | 28 | 60 | 53 | 100 |

## Marketing Practices

Table 6 shows the marketing aspect of the industry which includes the origin of customer and buyers, if products are for delivery or not, selling area, methods of selling their products, medium of communication, basis of pricing, customers mode of payment and their pricing strategies employed.

Customers and buyers. Majority of the producers caters to their neighbors (36\%), to retailers (32\%) and wholesalers (32\%). For retailers, majority caters to tourist (32.5\%), to wholesalers (22.55), and to fellow retailers (22.5\%) while majority of the producerretailers caters to tourist (31.58\%), wholesalers (23.69\%) and retailers (21.05\%).

Origin of buyers. All of the farmers (100\%) sell their products to customers into their locality and throughout Baguio City. The respondents are the ones who supply the major selling area in Baguio City. For retailers, majority of their customers are local tourists/domestic buyers (45.45\%), residents of Baguio City (40.09\%) and foreigners/ exporter (13.65\%). For farmer-retailers, majority (48.83\%) of their customers are local buyers, $41.86 \%$ are local tourists/ domestic buyers and foreigners/exporter (9.33\%).

Result implies that local buyers (53.33\%) still dominate the buyers of the ornamental potted plants industry, followed by local tourist/ domestic buyers and foreigners/exporter. This somewhat supported the study of Hernandez (2007) where he mentioned that the "Philippine Ornamental Industry continues to gain popularity and recognition in the country and more so abroad".

Delivery of products. Majority of the producers (70\%), retailers (76.92\%), and producer-retailers (65.9\%) don't deliver their products. On the other hand $30 \%$ of the producers deliver their products to their customers. $23.08 \%$ of the retailers and $42.86 \%$ of the producer-retailers delivers and sell their products directly to their customers from other places such as Metro Manila, Bulacan, Isabela, Pangasinan, Laguna, Batangas, and other places in the city. In general, $65.9 \%$ of the respondents don't deliver their products while $34.1 \%$ deliver. This implies that majority of the respondents has no outlet or business transaction outside the city.

Table 6. Distribution of the respondents according to their marketing practices

| PARTICULARS | PRODUCERS |  | RETAILERS |  | PRODUCERRETAILERS |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | \% | F | \% | F | \% | F | \% |
| Stall Location |  |  |  |  |  |  |  |  |
| Baguio City Orchidarium | - | - | 7 | 50 | 9 | 42.86 | 16 | 45.71 |
| Mines View Park | - | - | 3 | 21.43 | 2 | 9.52 | 5 | 14.29 |
| Wright Park | - | - | 4 | 28.57 | 8 | 38.1 | 12 | 34.29 |
| Botanical Garden | - | - | - | - | 2 | 9.52 | 2 | 5.71 |
| TOTAL | - | - | 14 | 100 | 21 | 100 | 35 | 100 |
|  |  |  |  |  |  |  |  |  |
| Neighbors | 9 | 36 | 5 | 12.5 | 5 | 13.16 | 19 | 18.44 |
| Retailers | 8 | 32 | 8 | 20 | 8 | 21.05 | 24 | 23.32 |
| Wholesalers | 8 | 32 | 9 | 22.5 | 9 | 23.69 | 26 | 25.24 |
| Institutional buyers |  |  | 3 | 7.5 | 2 | 5.26 | 5 | 4.85 |
| Contract growers |  | - | 1 | 2.5 | 2 | 5.26 | 3 | 2.91 |
| Tourist |  | - | 13 | 32.5 | 25 | 31.58 | 25 | 24.27 |
| Landscapers | - | - | 1 | 2.5 | - | - | 1 | 0.97 |
| TOTAL | 25 | 100 | 40 | 100 | 51 | 100 | 103 | 100 |
| Origin of Buyers |  |  |  |  |  |  |  |  |
| Local | 10 | 100 | 9 | 40.9 | 21 | 48.83 | 40 | 53.33 |
| National |  | - | 10 | 45.45 | 18 | 41.86 | 28 | 37.34 |
| International | - | - | 3 | 13.65 | 4 | 9.31 | 7 | 9.33 |
| TOTAL | 10 | 100 | 22 | 100 | 43 | 100 | 75 | 100 |
| Delivery of product |  |  |  |  |  |  |  |  |
| Deliver | 3 | 30 | 3 | 23.08 | 9 | 42.86 | 15 | 34.1 |
| Don't deliver | 7 | 70 | 10 | 76.92 | 12 | 57.14 | 29 | 65.9 |
| TOTAL | 10 | 100 | 13 | 100 | 21 | 100 | 44 | 100 |
| Mode of payment of customers |  |  |  |  |  |  |  |  |
| Cash on Delivery | 1 | 7.69 | 5 | 33.33 | 6 | 20.68 | 12 | 21.05 |
| Cash on Advance | - | - | 2 | 13.33 | 1 | 3.44 | 3 | 5.27 |
| Cash on Pick- up | 8 | 61.5 | 8 | 53.34 | 20 | 69.98 | 36 | 63.15 |
| Credit | 4 | 30.8 | - | - | 2 | 6.9 | 6 | 10.53 |
| TOTAL | 13 | 100 | 15 | 100 | 29 | 100 | 57 | 100 |

Table 6. continued...

| PARTICULARS | PRODUCERS | RETAILERS | PRODUCER- <br> RETAILERS | TOTAL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | $\%$ | F | $\%$ | F | $\%$ | F | $\%$ |
| Pricing strategy <br> involved |  |  |  |  |  |  |  |  |
| $\quad$ Sale | 1 | 10 | 4 | 22.22 | 5 | 14.28 | 10 | 15.87 |
| $\quad$ Discount | 5 | 50 | 11 | 61.11 | 22 | 62.85 | 38 | 60.32 |
| Bulk pricing | 4 | 40 | 3 | 16.67 | 8 | 22.87 | 15 | 23.81 |
| TOTAL | 10 | 100 | 18 | 100 | 35 | 100 | 63 | 100 |

Selling area. Most (83.33\%) of the producers sell their products directly in their farms while the rest (16.37\%) deliver their products to potted plants stalls. All (100\%) retailers sell their products in their stalls. For producer-retailers, majority (73.08\%) sells their products in their stalls and the remaining $33.33 \%$ are selling directly from their farms.

Method of selling. All of the producers (100\%) use direct selling in dealing their products. For retailers, most (93.75\%) use direct selling, the rest (6.25\%) employ sales agents. All of the producer-retailers use direct selling in selling their products.

In general, almost all (98\%) of the respondents employ direct selling.
Medium of communication. As to the medium of communication used by the respondents, majority (53.33\%) of the producers are interacting face to face with buyers. On the other hand, $46.67 \%$ communicate through sales agents. For retailers, majority (66.67\%) are also through face to face, same with those of farmer retailers (63.33\%).

In general, majority (61.9\%) of the respondents interacts face to face with buyers as a medium of communication; a significant $22.22 \%$ through sales agents and others (15.88\%) communicate through cellular phones. This implies that majority of the respondents still use traditional method in communicating to buyers.

Basis of pricing. More (46.67\%) of the producers follow the going to market rate as their basis in pricing their products. A significant $33.33 \%$ employ the cost plus method while the remaining $20 \%$ use the perceived value pricing. The aforementioned characterization is exactly the same with those of the retailers group. For the producerretailers, the method employed in pricing products are almost equally distributed among the three methods: $34.80 \%$ of the respondents uses the going to market rate method, another use perceived value pricing (34.80\%), and the rest (31.20\%) use cost plus method.

In general, $37.7 \%$ of the respondents employ cost plus method, $34.40 \%$ follows the going rate pricing, and $27.87 \%$ use the perceived value pricing.

Customer's mode of payment. As to mode of payment of customers, majority (61.54\%) of the producers, retailers (53.34\%), producer-retailers (68.98\%) customers pay in cash upon pick up. In general, majority (63.15\%) of the respondents customers pay in cash upon pick up.

## Employment Condition

Table 7 shows whether they hire employees or not and the number of employees hired. Majority (63.64\%) of the respondents don't hire employees. They are the ones managing their potted plants business with the help of their family.

The remaining $36.36 \%$ hire employees who help them in producing and selling the products where majority (82.35\%) hires at least three (3) workers. As to the skills that the employees must possess, they prefer hardworking, with knowledge to technologies, know how to persuade, trustworthy and responsible.

This shows that the industry provide employment not only to the owners themselves but also to other people.

Table 7. Distribution of the respondents whether they hire workers and the number of employees hired

| PARTICULAR | PRODUCER- |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PRODUCERS |  | RETAILERS |  |  |  |  |  |  |  | RETAILERS | TOTAL |
|  | F | $\%$ | F | $\%$ | F | $\%$ | F | $\%$ |  |  |  |  |
| Condition |  |  |  |  |  |  |  |  |  |  |  |  |
| $\quad$ Hires employees | 1 | 10 | 8 | 66.67 | 7 | 33.33 | 16 | 36.36 |  |  |  |  |
| Don't hire | 9 | 90 | 5 | 33.33 | 14 | 66.67 | 28 | 63.64 |  |  |  |  |
| TOTAL | 10 | 10 | 13 | 100 | 21 | 100 | 44 | 100 |  |  |  |  |
| No. of employees hired |  |  |  |  |  |  |  |  |  |  |  |  |
| $\quad 1$ to 3 | 1 | 100 | 6 | 75 | 7 | 87.5 | 14 | 82.35 |  |  |  |  |
| 4 to 6 | 0 | 0 | 2 | 25 | 0 | 0 | 2 | 11.77 |  |  |  |  |
| 7 to 10 | 0 | 0 | 0 | 0 | 1 | 12.5 | 1 | 5.88 |  |  |  |  |
| TOTAL | 1 | 100 | 8 | 100 | 8 | 100 | 17 | 100 |  |  |  |  |

## Problems Encountered

Table 8 shows the problems encountered by the industry. On the side of the producers, $22.72 \%$ have encountered a problem on insect pest and diseases; both lack of capital and lack of planting materials account both $13.6 \%$, lack of standards and seed availability (9.1\%). Soil depletion, seasonality of demand and price competition accounts 4.5\%. On the retailer's side, they had a burden on insect, pest and diseases (30\%) and
lack of capital (15\%). While most of producers-retailers were bothered on sourcing capital and seasonal demand (both 20.83\%).

In general, the following are the major problem faced by the respondents. Insect pest and diseases (24.48\%), lack of capital (16.28\%), lack of standards and lack of planting materials both $10.47 \%$, seasonality of demand (9.3\%), seed availability (6.98\%), soil depletion (5.81\%), seasonality of production and seasonality of commodities are both $4.65 \%$, price competition (3.49\%), natural calamities, source of irrigation and mortality rate was $1.16 \%$. In addition, we could also consider the lack of fund of the DA for the research and development of ornamentals plants as cited by Dr. Jose.

Table 8. Distribution of the respondents according to the problems they encountered

| PARTICULARS | PRODUCERS |  | RETAILERS |  | PRODUCERRETAILERS |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | \% | F | \% | F | \% | F | \% |
| Seed availability | 2 | 9.1 | 2 | 5 | 2 | 8.33 | 6 | 6.98 |
| Soil depletion | 1 | 4.5 | 3 | 7.5 | 1 | 4.16 | 5 | 5.81 |
| Insect pest and disease | 5 | 22.7 | 12 | 30 | 4 | 16.6 | 21 | 24.42 |
| Seasonality of production | 1 | 4.5 | 1 | 2.5 | 2 | 8.33 | 4 | 4.65 |
| Seasonality of commodities | 2 |  | 0 | 0 | 2 | 8.33 | 4 | 4.65 |
| Lack of capital | 3 | 13.6 | 6 | 15 | 5 | 20.83 | 14 | 16.28 |
| Lack of standards | 2 | 9.1 | 5 | 12.5 | 2 | 8.33 | 9 | 10.47 |
| Lack of planting materials | 3 | 13.6 | 5 | 12.5 | 1 | 4.16 | 9 | 10.47 |
| Seasonality of demand | 1 | 4.5 | 2 | 5 | 5 | 20.83 | 8 | 9.3 |
| Price competition | 1 | 4.5 | 2 | 5 | 0 | 0 | 3 | 3.49 |
| Mortality rate | 0 | 0 | 1 | 2.5 | 0 | 0 | 1 | 1.16 |
| Source of irrigation | 0 | 0 | 1 | 2.5 | 0 | 0 | 1 | 1.16 |
| Natural calamities | 0 | 4.5 | 0 | 0 | 0 | 0 | 1 | 1.16 |
| TOTAL | 21 | 99.7 | 40 | 100 | 24 | 99.9 | 86 | 100 |

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Summary

The study was conducted in Baguio City. It focused mainly to gather base-line information on the potted plant industry in the locality.

The respondents were classified into producers, retailers, and producer - retailers. They represent the major producers and retailers in the ornamental potted plant industry in Baguio City. Most of them are 40 years old and above although the retailers' group were relatively younger (22-30 years old). Majorities are females; all underwent formal education with significant number (36.36\%) earning a college diploma.

As to the length of period they are into the business, majority were engaged into potted plant business for 11 to 20 years. Almost all are sole proprietors who started business with an initial capital of Php 20,000 below using their own savings. They were enticed to engaged and continue in business primarily because of the profit they are realizing, it's their hobby and partly influence of their families.

Majority of the producers and producer-retailers own their farm and are utilizing a land area lesser than $500 \mathrm{~m}^{2}$. Their farms are spread-out in the city which includes Barangay Gibraltar, Camp 7, Pacdal, Pucsusan, Outlook Drive, Balacbac, Mines View, Lucnab and General Luna. Most of the farms are located in their backyards with a distance lesser than ten kilometers from the city market.

The commonly grown plants are cactus, foliage, flowering and fruiting ornamentals. For cactus, succulents are the most common followed by rare cactus and euphorbia. For flowering plants, the most common are Anthuriums, Impatience,

Milflores, Gumamela, Azalea, Marigold, Bougainvillea and Japanese Anthuriums; Roses, Malaysian mums, Begonia, Salvia, Dancing lady and Daisy. For the foliage group, the most common are Ceresa bonsai, Bromeliads, Fortune plants, kutcharita, and Peperomea. For the fruiting group, the most common are Money Trees, Jerusalem berries, and Korean Pepper. Majority are produced and sold throughout the year. Most of the producers grow plants in an open field and source the water for irrigation from the water district and spring.

The stall location of the retailers includes Baguio City Orchidarium, Mines View Park, Wright Park and Botanical Garden. Most of them cater to the tourists and retailers in the locality, domestic market and some includes export market. Majority don't deliver their products to other places they usually dispose it to their stalls or directly from their farms but a significant number of the respondents (34.1\%). They usually employ direct selling methods and face to face communication in promoting their products. The pricing strategy frequently employed was cost plus method and going market rate. Majority require their costumers to pay their products on cash basis upon pick-up.

Majority of the respondents don't hire employees but a significant number (36.36\%) hires employees. They encountered the problems on insect pest and diseases, lack of capital, lack of standards and lack of planting materials, seasonality of demand, seed availability, soil depletion, seasonality of production and seasonality of commodities, price competition, natural calamities, source of irrigation and mortality rate. In addition, we could also consider the lack of fund of the DA for the research and development of ornamentals plants as cited by Dr. Jose.

## Conclusions

Based on the findings of the study, these conclusions were drawn.

1. There are at least 50 major producers and retailers in the ornamental potted plants business in Baguio City although 44 were the only ones actually interviewed. Majority of the people engaged in Ornamental Potted Plant Business were dominated by females and middle aged individuals. All of them were literate with a significant number earning college diploma. Majority source their initial capital from their own savings. Almost all were sole proprietor. Most of them are the one who sell and producing their products and usually do it for profit.
2. The commonly grown plants are cactus, foliage, flowering and fruiting ornamentals. Most of them employ multi-cropping since they produce different varieties of plants at the same time. Except for the seasonal ornamentals, they usually produce throughout the year since there is demand through out the year
3. Farms were distributed through-out Baguio City such as Barangay Gibraltar, Camp 7, Pacdal, Pucsusan, Outlook Drive, Balacbac, Mines View, Lucnab and General Luna. Most were backyard farms and are accessible and most are owned by producers/ operators themselves.
4. Most farmers plant on the open field and they usually rely their water for irrigation in naturals sources such spring and rainfall.
5. They have different buyers from different areas. The stall location of the retailers includes Baguio City Orchidarium, Mines View Park, Wright Park and Botanical Garden. Majority sells on their stalls and farm and they doesn't take risk in delivering their product to other areas but still a significant number delivering to domestic and
export market. They also use the traditional way of disposing their products; using direct selling and face to face communication.
6. The industry provides employment not only to the owners themselves but also to other people.
7. The problems they encountering was on insect pest and diseases, lack of capital, lack of standards and lack of planting materials, seasonality of demand, seed availability, soil depletion, seasonality of production, seasonality of commodities, price competition ,natural calamities, source of irrigation and mortality rate. In addition, we could also consider the lack of fund of the DA for the research and development of ornamentals plants as cited by Dr. Jose

## Recommendations

Based on the findings and conclusion, the following recommendations are offered.

1. Since there's a lot of people engaged and benefiting in the industry, the government agency such as DTI, DA and DOST must take a look on how to help the stake holders in the industry to further improve their business operations. They may extend help by financing the business, introducing new technologies and new varieties of plants, educating the key players regarding Bookkeeping and Insect pest and management and disseminate related researches for them to be more productive and in return they could also help in the development of the locality.
2. In view of the fact that they don't fulfill yet the domestic demand including the foreign demand because majority of respondents sell only their products in their farms and stalls, market research and development must be reinforced to understand more
their market for them to create effective marketing strategies, serve the niche market, increase market coverage and to compete globally.
3. The key players must look beyond to improve their business; they must not be complacent on their operations. They must grow new and resistant varieties which are in demand not only in the country but to the export market as well. They must learn to employ technologies such as the aid of computer for marketing and the use of greenhouse in continues production of the commodities. They should have a quality control and management of their product to become more competitive.

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## APPENDIX A

Letter to the Respondents

Benguet State University<br>College of Agriculture<br>DEPARTMENT OF AGRICULTURAL ECONOMICS AND<br>AGRIBUSINESS MANAGEMENT<br>La Trinidad, Benguet

Sir/Madam:
I am Sherley P. Francisco, a fourth year BS Agribusiness student major in Enterprise Management of Benguet State University. I am presently conducting a research titled, "Benchmarking on the Potted Plant Industry in Baguio City" as a partial requirement of my course.

In this connection, may I request a portion of your precious time to answer the attached questionnaire and please give your honest answers. Rest assured that all information you will provide will be treated with utmost confidentiality.

Thank you very much for sharing me a part of your most precious time. God Bless!

Sincerely yours,

SHERLEY P. FRANCISCO

Noted:

ANDREW K. DEL-ONG
Adviser

## APPENDIX B

## Survey Questionnaire

## A. Respondent's Profile

Name: $\qquad$
Age: $\qquad$
Address:
Contact Numbers: $\qquad$
Highest Educational Attainment:
a. Elementary
b. High school
c. College; pls. state course and degree: $\qquad$
d. Vocational: pls. state course: $\qquad$
Sources of Income:
Others pls. specify:
Average Monthly Income: $\qquad$
Occupation:
___a. farmer
d. farmer- retailer
__b. retailer
e. retailer- wholesaler
___c. wholesaler Others please specify:

Number of years in business: $\qquad$
Type of Business:
__a. sole proprietorship
___c. Government owned business
b. partnership

Initial Capital:
__1000-50000
5001-100000
___100001 and above
Source of Capital
___a. savings
c. loans from banks
___b. borrowed from cooperative
d. borrowed from informal lenders
___e. others pls. specify: $\qquad$
Membership to any organization/cooperative related to ornamental plants:
a. $\qquad$ c. $\qquad$
b. $\qquad$ d. $\qquad$

Benefits derived from membership:
a. $\qquad$ c.
d.

Why do you choose Potted Plants as business?
__a. hobby ____ d. influence of family or friends
b. profit
c. relevant skill and talents
e. promising demand of product
f. others please specify
B. Farm Profile

1. Farm Location/Address:
2. Distance from Baguio Public Market: $\qquad$
3. Distance from residence: $\qquad$
4. Land Ownership/ tenure:
__a. owned
b. rented
c. leased
5. Total Area Occupied:
a. lesser than $500 \mathrm{~m}^{2}$
b. $501 \mathrm{~m}^{2}-1$ hectare
c. more than 1hectare
6. Types of plants sold and produced:

| Kinds of <br> plants <br> produced | Specifications | Area <br> Occupied <br> $\left(\mathrm{m}^{2}\right)$ | Number <br> of <br> Plants $/ \mathrm{m}^{2}$ | Source of <br> raw <br> materials | Frequency of <br> production | Price |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cactus | -Rare cactus <br> -Succulents <br> -Euphorbia |  |  |  |  |  |
| Flowering | -Chrysanthemum <br> -Rose <br> -Malaysian mums <br> -MilFlores <br> -Anthuriums <br> -Japanese <br> Anthuriums <br> -Impatients <br> -Begonia <br> -Canna <br> -Kalachuchi <br> -aster <br> -Alstromeria <br> -Carnation <br> -Star Gazers <br> -Dancing Lady <br> -Rosal <br> -Azalea |  |  |  |  |  |


7. Where is the source of irrigation?
___a. rain fed
c. creeks
b. irrigated
d. Others (pls. specify)
8. Where do you plant ornamentals?
___a. Green House

## ___b. Open field

9. Do you hire workers?
___a. yes
b. no
10. How many employees do you hire?
11. Is it seasonal or regular? $\qquad$
12. What skills should they possess?
13. How do you select/choose plants for sale?
___a. Size
___b. Appearance
___c. other (pls. specify)
14. To whom do you sell the product?
___a. neighbors
d. institutional buyers (specify)
___b. retailers
__c. wholesalers ___f. others please specify:
e. contract growers
15. Where are the known origins of the costumers?
___a. Local (pls. specify)
b. National (pls. specify
c. International (pls. specify)
16. Do you deliver to other places? $\qquad$ a. yes b. no

If yes, where do you deliver it? $\qquad$
17. Where do you sell your products?
a. farm itself
b. potted plants stalls
c. others please specify:
18. How do you sell your product
___a. direct selling
c. through sales agent
b. negotiations
d. other please specify
19. Do you sell or produce through out the year? $\qquad$ a. yes
b. no If yes, why?
___a. continuous market demand
b. adequacy of product
c. others (pls. specify)

If no, why?
___a. seasonality of demand
___b. seasonality of product c. others (pls. specify) $\qquad$
20. What are the medium of communication involved in negotiation?
___a. face to face
___c. phone/ cell phone
b. through sales representative
21. What is the basis of pricing?
__a. cost plus pricing
d. computer
____b. going rate or market price
22. Mode of payment
a. cash on delivery
c. cash on pick-up
b. cash advance
d. credit
23. What are the pricing strategies employed?
a. Sale
b. discounts
c. bulk pricing
d. others please specify
20. What other services do you offer? $\qquad$
21. What problems do you encounter in the industry?
a. seed availability
b. soil depletion
c. insect, pest and diseases
d. Seasonality of production
e. seasonality of commodities produced
f. Lack of capital
g. Lack of standards
h. Lack of planting materials
i. others (pls. specify

