COMMUNITY SERVICE PROJECT

ON

A STUDY ON VEGETABLES MARKETING

Submitted by

VEMULA NAGALAKSHMI

ID NO : 120120B5199

Under the supervision of

Mrs. D.GAYATRI

Assistant professor

DEPARTMENT OF COMMERCE

MRS. A.V.N. DEGREE COLLEGE VISAKHAPATNAM

SEPTEMBER 2022

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Program Book

Community Service Project

AP STATE COUNCIL OF HIGHER EDUCATION

Program Book
for
Community Service Project

Name of the Student:

Name of the College:

Registration Number:

Period of CSP: **From:** **To:**

Name & Address of the Community/Habitation:

Community Service Project Report

Submitted in accordance with the requirement for the degree of ——

Name of the College: [illegible]

Department: B.com , Commerce

Name of the Faculty Guide: [illegible]

Duration of the CSP: From [illegible] To [illegible]

Name of the Student: [illegible]

Programme of Study: [illegible]

Year of Study: [illegible]

Register Number: [illegible]

Date of Submission:

Student's Declaration

I, [redacted] a student of [redacted] Program, Reg. No. [redacted] of the Department of [redacted] College do hereby declare that I have completed the mandatory community service from [redacted] to [redacted] in [redacted] (Name of the Community/Habitation) under the Faculty Guideship of [redacted] (Name of the Faculty Guide), Department of [redacted] in [redacted] College

[redacted]
(Signature and Date)

Endorsements

[redacted]
Faculty Guide

[redacted]
Head of the Department

[redacted]
Principal

PRINCIPAL
Mrs. A.V.N. COLLEGE
VISAKHAPATNAM

Certificate from
Official of the Community

This is to certify that [illegible] (Name of the Community Service Volunteer) Reg. No [illegible] of [illegible] (Name of the College) underwent community service in [illegible] (Name of the Community) from 1-10-22 to [illegible]. The overall performance of the Community Service Volunteer during his/her community service is found to be [illegible] (Satisfactory/Good).

Authorized Signature with Date and Seal

ACKNOWLEDEMENT

The satisfaction that accompanies the successful completion of any work would be Incomplete without mentioning the people who made it possible and whose encouragement and guidance has been a source of inspiration throughout the
courage of the project.

We are thankful to the sanctum **MRS. A. V. N. DEGREE COLLEGE**, Visakhapatnam for giving us the opportunity to fulfill our aspirations

We are take the opportunity to express our heartfelt to our beloved principal

Mr.Simhadri Naidu for their kind support in doing this project.

We are privileged to express my sincere honorable gratitude to **Mr.M.L Prasanna kumar,** Head of the department, Dept. Of bachelor of commerce for giving his continues support and guidance in our endeavors.

We are privileged to express my sincere gratitude to **Mrs.D.GAVATIRI** mentor, lecture in commerce & for giving his continues support and guidance in our project.

V. roja tanuja

Signature of the student

MRS . A .V . N . DEGREE COLLEGE , VISAKHAPATNAM

DEPARTMENT OF COMMERCE

CERTIFICATE

This is to certify that the community service project entitled Vegetables Marketing a confide record of project work done by VENELA NAGALAKSHMI (Id SCL12EC00031599)
In the department of commerce, MRS. A. V. N. DEGREE COLLEGE , Visakhapatnam 530001

Project Mentor,
D.GAYATRI
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MRS. A. V. N. DEGREE COLLEGE
VISAKHAPATNAM
DEPARTMENT OF COMMERCE

DECLARATION

I declared that this community service project entitled **Vegetables marketing** has been carried out by me and work, or part thereof, has not been submitted for the Award of any degree of project or any other college

VEMULA NAGALAKSHMI
2nd B. Com (CM)
Signature of the student

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VEGETABLE MARKETING

INTRODUCTION :—

Organic farming has been in existence since man began utilizing agricultural practices. Over the years organic methods gave way to "conventional" methods, characterized by use of synthetic inputs. Today, because there is increased interest in organic farming and it is being viewed by many as "alternative" method of farming, this increased interest is a direct result of high energy prices, increased fertilizer costs, and concerns about health, pesticide residues and the environmental impacts of chemicals.

Many view organic farming as a primitive inefficient method but today organic farmers utilize some of the latest technologies including genetically superior plants, biological pest controls and advanced mechanization. In some situations organic farmers claim their systems are usually more diversified. Some claim that the widespread adoption of organic farming methods could result in rural revitalization, regional self sufficiency in food production and changes in the existing "middle-income structure of agriculture".

DEFINITION :— In the face of lack of conformity among various organic regulatory organizations and the difficulty many have in distinguishing the terms "organic," "alternative agriculture", "regenerative agriculture" and "LISA" (low-input sustainable agriculture), in [illegible] the United fresh fruit and vegetable association organized a task force to establish a standard definition of "organic" which could be understood by growers, retailers and consumers. Those who served on the task force included retailers, conventional producers, state departments of agriculture and organic producers and shippers, which were resulted in the following definition :-

procedures to [illegible] and [illegible] to continue growing organic produce.

A common misconception farmers have about organic farming is the idea that it is low cost and low input. [illegible] with the [illegible] has but he [illegible] that he [illegible] every field to [illegible] fallow every 3 to 5 years and the extra cultivation [illegible] of fertilizer and herbicide [illegible] are another [illegible]

[illegible], owner of one of the largest organic [illegible] farms in the united states [illegible], an organic specialist from washington state, acknowledges that organic farming is anything but low input. For example [illegible] per acre on [illegible] for [illegible] and [illegible] and [illegible] to [illegible] and [illegible] profits [illegible] at what [illegible] are best adapted for a particular piece of land and [illegible] at what [illegible] at point of sale.

[illegible], comparative [illegible] in washington state, recently told the [illegible].

But many farmers in washington are [illegible] to organic production methods because they [illegible] market [illegible] opportunity with premium prices. In the same article, organic [illegible] farmer [illegible] indicated that marketing his product was just as complicated as growing it. Like other organic operations, [illegible] farm is not low input; he indicated that he spends more time on rigorous [illegible] than other growers. He believes the major difference in terms of cost between organic farming methods and conventional methods [illegible] the circumstances. Even with the challenges, [illegible] believes it is the only way to farm if one is concerned about the environment.

Organic production in california [illegible] recently [illegible] by the organic [illegible] one of the purposes of the [illegible] was to [illegible] financial [illegible] of the [illegible] and

- Organic food production systems are based on farm management practices that replenish and maintain soil fertility by providing optimal conditions for soil biological activity.
- Organic food is food that has been determined by an independent third party certification program to be produced in accordance with a nationally approved list of materials and practices.
- Organic food is documented and verified by an accurate and comprehensive record of the production and handling system.
- Only nationally approved materials have been used on the land and crops for at least three years before harvest.
- Organic food has been grown, harvested, processed, packaged, stored, transported and marketed in accordance with nationally approved materials and practices.
- Organic food meets all local, state and federal regulations governing the safety and quality of the food supply.

FARMERS PERCEPTIONS —

Many farmers are discovering that organic farming methods are viable alternatives to conventional farming, while others have discovered that organic farming can be quite costly. At present, according to a recent article in the Guardian.

Fred Kirschenmann, owner of one of the largest organic food-grain farms in the United States, believes his gross income per acre is greater than conventional farms, averaging 10 percent to 20 percent premiums for all crops. Kirschenmann also notes that his farm has an advantage over conventional farms due to its diversity. Other farmers have not fared as well and have found that organic farming can be tremendously costly. Recently, the owner of the [illegible] company stated that he lost money on his organic venture, and that the 30 to 50 percent premium was not enough to cover production costs.

marketing obstacles limiting expansion of the organic industry. Agricultural economists at the University of California at Davis commissioned the survey in a paper entitled "Marketing Organic Commodities in California: Structure and Obstacles to Expansion."

Conclusions drawn by some indicate that farmers believe demand side factors are more critical to the success of the industry than supply side factors such as yields and quality. This is based on the fact that farmers named the factors limiting expansion as follows: (1) lack of consumer awareness of the benefits of organic products; (2) limited distribution and availability; (3) consumer unwillingness to pay a premium for organic products. Farmers named other problems as producing significantly as follows:

(1) labor requirements (2) pest problems (3) insufficient technical knowledge.

Several other California grower plans are experiencing the same problems analysis had and are affecting organic products depending on availability and demand, found that the [illegible] problems organic farmers face are biological factors (specifically weed management), economics, logistical/informational constraints, marketing problems, lack of [illegible] tools and local factors.

MARKETING PERCEPTION :-

The "Marketing Organic Commodities in California: Structure and Obstacles to Expansion" indicate some reports that 18 percent of California's organic farmers utilized specific organic channels (as distinct from conventional channels). The [illegible] which distinguish organic products from conventional products, most common organic outlets used were organic wholesalers or brokers, with direct selling to consumers and retailers second and third, respectively. The most popular non-organic market outlet used was direct selling to consumers, with wholesalers or brokers and processors second and third, respectively.

Today's supermarkets, California's first mainstream grocery chain to offer organic products, has recently decided to quit selling organic because they cost too much and sales have stagnated due to inconsistent supply and quality.

ACTIVITY LOG FOR THE FIRST WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day – 1	I found few farmers most of their people purchased vegetables in [illegible] [illegible]	[illegible]	[illegible]
Day – 2	most of the peoples of vegetables [illegible] they are purchased products in markets	they are purchased products due to [illegible]	[illegible]
Day – 3	I found few farmers they buy vegetables in retail store only	[illegible] to [illegible] by farmers	[illegible]
Day – 4	many of the people they can [illegible] the vegetables in [illegible] markets only	[illegible] they [illegible]	[illegible]
Day – 5	many of the farmers can sell their vegetables in [illegible] by [illegible]	due to low transportation [illegible]	[illegible]
Day – 6	few of the farmers can utilize government transportation not for selling their products	due to [illegible] transportation [illegible]	[illegible]

CONSUMER'S PERCEPTIONS :-

Over the past few years consumers have changed their perceptions regarding organic food. This change is a direct result of consumers' awareness of food safety issues, particularly those involving chemical residues. Concerns over chemical residues have existed for quite some time but it was not until the Alar-sprayed apple incident in 1989 that chemical residue issues received widespread attention.

Recent surveys confirm the fact that consumers are concerned about chemical residues. A 1990 national survey, according to the Packer's Fresh Trends, found that 84 percent of those consumers surveyed were very concerned about residues, and 96 percent of respondents said they were concerned with chemical residues on produce and that concern has prompted them to change their buying habits. This compares to 21 percent who reported changed buying habits in the 1988 and 1989 surveys.

Chemical residue concerns are not limited to consumers in higher income brackets. In fact, the survey reports that consumers in lower ... survey reports that consumers in lower income brackets are more concerned. For example, 40 percent of households in the [illegible] income bracket reported that they had altered purchasing habits, while 30 percent in the $50,000-plus bracket reported altered purchasing habits.

ECONOMIC :-

The authors of a paper entitled "Economic comparison of organic and conventional production methods for fruits and vegetables" say it is difficult to reach a conclusion about the comparative profitability of conventional and organic agricultural production practices because of the wide range of production methods used in different regions and with different crops, and because of the variable organic price premiums. The authors found that yields per acre were generally, but not always, higher for conventional methods. However, when analyzed on a per unit basis (e.g., dollar per box), the authors found that "... costs were almost always higher due to the yield penalty associated with these organic methods". The authors referenced one study that indicated that the profitability of organic methods usually depended

prices premium. The same study indicated that all organically grown vegetables except onion were more profitable when sold at premium prices. However, according to the authors, the study showed that at conventional prices, only tomatoes, eggplant and [illegible] were profitable and some considerably less profitable than their conventionally grown counterparts."

TYPES OF AGRICULTURAL MARKETS IN INDIA AND THEIR CLASSIFICATION:-

Market for agricultural produce may broadly be divided into three categories:- 1. Wholesale market
2. Retail market
3. Fairs.

1. WHOLESALE MARKETS:-

These markets are subdivided into

I. PRIMARY WHOLESALE MARKETS:-

These markets are periodically held, either once or twice a week. Agricultural produce comes from neighbouring villages. These markets deal in the sale of fruits, vegetables, foodgrains and household [illegible] etc. e.g. village market

II. SECONDARY WHOLESALE MARKET:-

These are also known as mandis. These are located generally at district or taluka headquarters. Local merchants purchase from primary wholesale market and sale to these markets. Some cultivators also bring their produce to these markets. Each market commanding [illegible] 10 to 30 miles radius. e.g. district and taluka market.

III. TERMINAL MARKET:-

These are the markets in which the produce is either finally disposed off, direct to consumers or processors or assembled for shipment to foreign countries. These markets are the ports where warehouses and storages are available / [illegible] may be [illegible].

BOMBAY TERMINAL MARKET:-

2. RETAIL MARKETS:-

These markets are spread all over the city or town subject to municipal control.

They generally deal in all types of products and serve the needs of the city people as well as of the surrounding villages. Particular type of market is located in particular locality. Cloth market in one locality and grain, vegetables are in different localities which is about [illegible].

3. FAIRS :-

These are held on religious occasions at pilgrim centres. These markets deal in livestock, agricultural products etc. for e.g. [illegible] mela at [illegible]. These are various varieties of markets. They [illegible] may be classified on the basis of the transactions.

I. ON THE BASIS OF FREE INTERACTION OR DEGREE OF COMPETITION :-

A. PERFECT MARKET :-

A market is said to be perfect, when all potential sellers and buyers are promptly aware of the prices at which transaction takes place. Any buyer can purchase from any seller. The condition underlying a perfect market require that there should be a uniform price for any goods; there should not be restriction on the movement of a commodity; there must be a good number of buyers and sellers.

B. IMPERFECT MARKET :-

A market is said to be imperfect when some buyers or sellers or both are not aware of the prices at which transactions take place; there is restriction for movement of goods.

II. ON THE BASIS OF TIME :-

a. Very short period markets :- these are for few hours and are mostly for highly perishable commodities like fruits, vegetables, fish, milk etc.

b. Short period markets :- In these markets commodities are perishable and can be stored for short time. The commodities are like foodgrains and oilseeds.

c. Long period markets :- Time span available is long to adjust supply to meet demand and by managing production. These markets can be for machinery and manufactured goods.

III. ON THE BASIS OF NATURE OF COMMODITIES (TYPES OF GOODS TRANSACTED)

I. Commodity markets

i. Produce exchange :- commodities are purchased and not manufactured. Generally one market to one commodity e.g. cotton exchange market.

ii. Precious metals :- these are highly specialised and well organised markets of metals for e.g. bullion market of Mumbai.

iii. Manufactured goods markets :- these are markets of manufacture and semi manufactured goods. for e.g. leather exchange of Kanpur.

CAPITAL MARKETS :-

a. Money markets :- market that includes a number of agencies providing a finance to business. these are at large financial centres like Mumbai, London.

b. Foreign exchange market :- it is international market and largely connected with export and import trade of countries.

c. Stock exchange :- this is market for investments shares bonds debentures. shares are purchased and sold in different parts of the countries. for e.g. Calcutta and Mumbai stock exchange.

II. ON THE BASIS OF AREA OF OPERATION :-

1. Village markets :- buying and selling activities are confined among buyers and sellers of the village or nearby villages mostly for perishable commodities.

2. Regional markets :- buyers and sellers drawn for buying commodity are drawn larger area than the local markets in India there generally exist for food grains.

3. National markets :- buyers and sellers are at national level e.g. durable goods such as jute, tea.

4. World markets :- buyers and sellers drawn from the world biggest markets from the point of view and exist for commodities having world wide demand e.g. coffee, gold, silver.

V. ON THE BASIS OF LOCATION OR IMPORTANCE :-

a. **Primary wholesale markets** :- these are located in big towns near the centres of production of agricultural commodities. Transaction usually take place between farmers and traders.

b. **Secondary wholesale markets** :- these are generally located at district headquarters or important towns. These markets, where produce is handled in large quantity.

c. **Terminal markets** :- where produce is either finally disposed of to the consumers or processors or assembled for export. These are located in metropolitan cities like Mumbai, Chennai and Kolkata.

d. **Sea board markets** :- these are located near seashore and are mainly meant for import and export of goods.

e. **Fairs** :- these are held on religious occasions.

VI. ON THE BASIS OF NATURE OF TRANSACTIONS :-

1. **Spot or cash markets** :- where goods are exchanged for money immediately after sale or within reasonably short period of time.
2. **Forward or future markets** :- where a transaction takes place for a standardized commodity with a promise to payment delivery of commodity at some future date.

VII. ON THE BASIS OF VOLUME OF TRANSACTIONS :-

1. **Wholesale markets** :- where commodities are bought by and sold in large lots or in bulk. Transaction take place generally between traders.
2. **Retail markets** :- here commodities are bought by and sold to the consumers as per their requirement.

VIII. ON THE BASIS OF NO OF COMMODITIES IN WHICH TRANSACTIONS TAKE PLACE

1. **General markets** :- In these markets almost all the types of commodities, such as foodgrains, oilseeds, fibre crops etc. are bought & sold.
2. **Specialized markets** :- In these transaction takes place only in one or two commodities. For every group of commodities, separate markets exist e.g. food grain markets, cotton markets etc.

IV. ON THE BASIS OF STAGE OF MARKETING :-

1. Producing markets:- these market mainly assemble goods for further distribution to other markets for production purpose. they are located producing areas.
2. Consuming markets:- here produce is collected for final disposal to the consuming population. these are located generally in densely populated areas, where production is inadequate.

V. ON THE BASIS OF EXTENT OF PUBLIC INTERVENTION :-

1. Regulated markets:- here business is done as per the rules and regulated by statutory market organization. market charges are standardized and fixed and practices regulated by regular market committee.
2. Unregulated markets:- here business is conducted without any set of rules and regulations. traders frame rules and conduct business. these markets suffer from various defects in functioning.

VEGETABLE TYPE :-

1. INDIGENOUS VEGETABLES :-

- these are vegetables that are associated with the hot humid tropical area
- they are adapted to the hot temperatures and heavy rainfalls of the tropics
- in tropical Africa, where starchy root crops are the staple food, they are generally consumed as supplements to the starchy staple foods.
- they provide a cheap source of protein, vitamin and minerals.
- the indigenous vegetables are usually cultivated under mixed cropping system as minor crops.
- they have more potential in compound homegarden farms.
- they are usually grown with limited agricultural input or farm yard manure. they are rarely fertilized with inorganic fertilizers.

ACTIVITY LOG FOR THE SECOND WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	most of the farmers dry [illegible] vegetables [illegible] [illegible]	only 40% of farmers	[illegible]
Day - 2	I found few farmers they selling & distributing the vegetables in market lands	they can distribute easily into different places	[illegible]
Day - 3	I found few houses competitively rights very high prices to [illegible] [illegible]	Due to high middleman commission	[illegible]
Day - 4	I found few vegetables can also selling [illegible] shops [illegible]	very few of them are not [illegible] Buyers [illegible]	[illegible]
Day - 5	I found few of them [illegible] awareness & [illegible] schemes & registered [illegible]	40% of people registered	[illegible]
Day - 6	many of the [illegible] Jharkhand high prices in [illegible] days.	Due to climatic impact & middle man	[illegible]

- Women mostly engaged in production, processing and marketing of indigenous vegetables.
- Cultivation requires less capital (and equipment) and relatively small land area, also, a sizeable profit can be realized over this.

2. EXOTIC-TYPE VEGETABLES :-

- they originated in areas with cool temperate climate / temperate region
- In Nigeria, they are grown in high altitude areas such as [illegible] and highlands of Jos and [illegible].
- they are very popular especially in the urban areas.
- vegetables in this group are: beet, lettuce, cabbage, radish, carrot, Irish potato etc.

PRODUCTION OF EXOTIC VEGETABLES IN THE HUMID TROPICS IS OFTEN IMPOSSIBLE BECAUSE OF THE FOLLOWING REASONS :-

- there is poor demand for exotic vegetables
- cultivation of exotic demands special methods which are difficult and expensive
- exotic vegetables has poor seed germination and storage under warm-humid tropical conditions
- exotic vegetables have peculiar taste, texture and special cooking requirements which are not acceptable to most homes in tropical regions

IMPORTANCE OF VEGETABLES IN HUMAN DIET :-

- vegetables supply most of the nutrients that are deficient in other food materials this includes supply of minerals, especially calcium and iron
- vegetables are acid neutralizers e.g. beet, tomatoes [illegible] neutralize the acid produced from the [illegible] foods
- vegetables prevent constipation and promote digestion as a result of fibre/roughages obtained from okra, cucumber, amaranthus, lettuce and cabbage.
- vegetables are rich sources of vitamins A, B and C which helps to lower susceptibility to infection, e.g. carrot, sweet [illegible], amaranthus

and salads provide vitamin A; bitter leaf, water leaf, lettuce and spinach provide vitamin B; tomatoes, carrots, lettuce, cabbage and cucumber provide vitamin C.

- Root crop vegetables are cheap sources of carbohydrates e.g. potatoes, sweet potatoes, carrot etc.
- Green leaves and peas are cheap sources of protein, vitamins (bitter leaf), [illegible] and legumes provide some good amount of protein in human diet.
- Vegetables are generally needed to have balanced diets and overcome nutritional deficiencies.
- Vegetables serve as cheap food with palatable and reduce diet [illegible]
- The practice of cultivating vegetables and spices for food, cosmetics, decorating and medicine is referred to as olericulture. Olericulture is one of the four general and sub-categories of horticulture, others are pomology, floriculture, and landscape gardening.

PRINCIPLES AND PRACTICE OF VEGETABLE PRODUCTION:-

There are some principles required in the production of vegetable crops which are very important and will serve as the growers' guide. These principles are:

- Production of vegetables does not involve a long-term investment as done in the orchard of citrus, mango or cashew.
- Vegetable growers/farmers are not bound to produce the same crop each year like their counterparts who grow fruit crops.
- Vegetable growing forms the stability which is economically developed. Over a period of years has an interest that, getting into vegetable production is a [illegible] process and getting out may also be faster.
- Vegetables can be grown by people with limited experience, e.g. school farmers [illegible] this vegetable production.
- The land for production of vegetable crops is flexible and adjustable. It is much easier for vegetable growers/farmers to change production from one crop to another than for fruit crop growers.

- Vegetables offers that opportunities are some what more different with vegetable crop production than fruit growers. Vegetable growers/farmers have no long period for raising plans, vegetable production is seasonal.
- Vegetable production requires more intensive production management per unit area and time

PRACTICES OF VEGETABLE CROPS PRODUCTION :-

The several practices of productions have developed as a result of rapid urbanization and socio-economic and political situations. The practices are highlighted below:

1 HOME GARDENING :-

The potential source of fresh and vegetable supplies for most homes. It supplies an important part of the family needs and additional tax-free income.

2. MARKET GARDENING :-

It takes care of both family needs and market. Vegetable production goes beyond family level of needs, it depends on urban market demand.

3. COMMERCIAL PRODUCTION :-

The principal source of fresh vegetables for processing big market. It is more extensive and specialized than market gardening. The scale of production is determined by climate and edaphic factors.

4. PRODUCTION FOR PROCESSING :-

The potential source of fresh vegetables for processing industries. The scale of operation is similar to that of commercial production.

5. VEGETABLE FORCING :-

The practices of producing vegetables out of their normal production season. It may be accomplished by modifying the growing environment such as heat provision or protection from cold, etc.

6. CONTROLLED ENVIRONMENT AGRICULTURE :-

The practice of modifying the natural environment for optimum plant growth and production of growth factors such as light,

ACTIVITY LOG FOR THE THIRD WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	So many many farmers go to Rythu Bazaar is to receive price to farmers and provide quality and fresh vegetables	consumers at reasonable rates	[illegible]
Day - 2	The Rythu Bazaar market was started by the government of Andhra Pradesh in 1999.	The Rythu Bazaar start the market to farmers at consumers	[illegible]
Day - 3	The Rythu Bazaar aims to [illegible] to facilitate the directly marketing between consumers and farmers	So many farmers attended in Rythu Bazaar	[illegible]
Day - 4	The Rythu Bazaar is to help to the farmers and consumers in low price	Due to [illegible] fruits / vegetables in Rythu Bazaar.	[illegible]
Day - 5	The Rythu Bazaar is help the government farmers and industries provide and [illegible] etc.	government can provide in Rythu Bazaar.	[illegible]
Day - 6	Rythu Bazaar give the producers directly sell their products to consumers	All farmers fixed rates in Rythu Bazaar.	[illegible]

air, temperature, water, relative humidity etc.

1. VEGETABLE SEED PRODUCTION :-

This is a specialized agricultural industry for seed production and processing. The practice only involves seed production and not fresh vegetables for consumption.

FACTORS AFFECTING VEGETABLE PRODUCTION :-

The importance of environment in crop production cannot be over-emphasized. It is a major determinant of crop production. It plays an indispensable role in plant growth and development, determining the extent to which crop plants attain their potential values. It also provides the scientific principles on which crop plant production technology is based.

The environment of crop production can be classified into two divisions, operating separately or dependently.

1. Human Environment
2. Natural Environment

HUMAN ENVIRONMENT :-

Is made up of economic, institutional and social factors.

i. ECONOMIC ELEMENT :-

This includes economic policy, which determines quantities and distributions as well as standards and relative prices of inputs and outputs. Policy also influences the availability and distribution of physical infrastructure such as transportation, water supply, credit services and facilities for marketing, processing and storage.

ii. INSTITUTIONAL ELEMENT :-

These are laws of the land, credit and marketing conditions, contractual agreements, extension services, property rights to land and water, as well as distribution and quality of goods, quality and [illegible].

II. Social Element :-

It includes culture and customs within a community. They determine access that farmers have to capital, source of credit for money and other production inputs and the availability of labour.

NATURAL ENVIRONMENT :-

This is also called biological environment which consists of physical elements of climate (e.g. rainfall, radiation, humidity, temperature and light), topography and soil and the biological elements (vegetation, plants, weeds, insect pests and diseases).

Some of the challenges of biological environment are

- It is difficult or impossible to manipulate, for example many tropical soils are highly weathered and generally infertile.
- The rainfall is responsible for the time of onset, duration, distribution, reliability and cessation.
- The temperature and light intensity are generally high and may permit pest development and may permit [illegible] the year.
- There is no fallow or rainless period between the end of one cropping season and the beginning of another to help destroy pest infestation. The fallow period has been shortened in the tropics as a result of [illegible] population growth.

BIOTIC FACTORS :-

The elements of biotic factor are important components of tropical farming system. They occupy different niches and compete with crop plants for space, water, light and nutrients. They may be beneficial, neutral or harmful to plants for space growth. All biotic factors comprise of micro flora, micro fauna, macro fauna, macro-flora. Include bacteria, fungi, actinomycetes, and algae; microfauna include pathogen and nematodes. Macro-fauna include burrowing animals such as moles, rats and rabbits, nonburrowing arthropods such as mites, millipedes, insects, ants and termites; and gastropods such as slugs and snails. Macro-flora include roots of herbs, shrubs and big trees.

LIGHT ATTRIBUTES :-

Light has three main attributes such as quality, which determines tissue differentiation, physiological process and germination; intensity, which determines rate of any [illegible] accumulation; and duration or photoperiod, which affects behaviour and physiological functions of living organism.

CULTIVATION AND CROPPING SYSTEMS :-

Cropping system defines the pattern of growing crops in terms of crop in a given area of land at a time. there is no competition for growth resources between two different crop types, either in space or time dimension, apart from the one between the crop and weeds.

MONOCULTURE OR SOLE CROPPING :-

The practice of growing only one type of crop in a given area of land at a time. there is no competition for growth resources between two different crop types, either in space or time dimension, apart from the one between the crop and weeds.

MIXED CROPPING :-

It is the farming practice that combines growing crops and rearing livestock on the same piece of land.

MULTIPLE CROPPING :-

The practice of growing more than one crop on the same piece of land. multiple cropping consists of mixed cropping & intercropping, sequential cropping and crop rotation.

INTERCROPPING :-

It is the practice of growing more than one crop plant species simultaneously in contiguous stands on the same piece of land. Intercropping has four general [illegible]

i. Mixed Intercropping :- It is the practice of growing two or more crops simultaneously with no distinct row arrangement.

ii. Row Intercropping :- It is the practice of growing two or more [illegible] [illegible] [illegible], one crop planted in the same row or alternate rows.

iii. Strip Intercropping :- It is the practice of growing two or more crops in different strips wide enough to separate them and permit independent

cultivation but close enough to cause interactions agronomically between them.

iv. **Relay intercropping** :- It is the practice of growing two or more crops during different part of their life cycle, but with one or more of them planted after the first crop has reached reproductive stage of growth but before harvesting.

v. **Patch intercropping** :- It is the practice of growing two or more crops simultaneously in small contiguous patches or mounds.

SEQUENTIAL CROPPING :-

It is the practice of growing two or more crops in sequence on a piece of land in a year. Sequential cropping consists of the following:

i. **Double sequential cropping** :- It is the practice of growing two crops in sequence in a year.

ii. **Triple sequential cropping** :- It is the practice of growing three crops in sequence in a year.

iii. **Quadruple sequential cropping** :- It is the practice of growing four crops in sequence in a year.

iv. **Ratoon cropping** :- It is the practice of cultivating crop regrowth after the first harvest for subsequent production.

CROP ROTATION :-

It is the practice of growing two or more different crop types in planned sequence on a piece of land for specified number of years. Crop rotation combines features of intercropping and sequential cropping system.

AGRO - FORESTRY :-

It is the practice of integrating the raising of trees with horticultural fruit tree plantation and arable farming by alley cropping. It can simply be referred as growing crops under tree canopy.

ALLEY CROPPING :-

It is the practice of growing two or more crops in

ways of integrating organic tree crops in multipurpose trees and shrubs. Especially in fairly dependent species. It is a modified form of agro-forestry.

Agro-forestry systems grow crops on the land throughout the year and also involve the integration of agro-forestry practices. Trees into crop production, disrupt soil erosion, reduce ... through its nitrogen and nutrient recycling and increases direct production of food crops, fodder, fruit, fibre and income from products produced by the tree.

VEGETABLE NURSERY ESTABLISHMENT TECHNIQUES :-

Most vegetable species are grown from seeds, but some important ones are propagated by vegetative methods. Among those grown from seeds, a significant number mainly those with small seeds are mostly first grown in nursery beds, boxes or containers and are transplanted at a later stage.

NURSERY :-

A nursery is a place where young plants are raised under intensive care before transplanting into the field.

ADVANTAGES OF NURSERY ARE :-

ECONOMY OF SEEDS :-

Fewer seeds are needed for raising seedlings in the nursery than for direct sowing in the field.

UNIFORMITY OF GROWTH :-

SELECTION OF SEEDLINGS

You can select vigorous, pest and disease free seedlings for transplanting.

BETTER CARE OF SEEDLINGS :-

The seedlings in the nursery receive more intensive care particularly protection from damages by pest, diseases and weeds than when they are seeded directly in the field.

ACTIVITY LOG FOR THE FOURTH WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day – 1	most of the people are purchased in rythu bazaar	due to low price.	
Day – 2	I found [illegible] of vegetables & fruits low prices in rythu bazaar	It is a good quality	
Day – 3	most of the items available in the rythu bazaar	due to all items are available	
Day – 4	I found the [illegible] the frozen vegetables in low price	due to vegetables in frozen low price.	
Day – 5	many of the families purchased in high prices in [illegible] days	due to climatic impact of prices, middlemen	
Day – 6	many of the customers [illegible] their vegetables in [illegible] by [illegible]	due to low transportation of the prices.	

[illegible] :-

COST OF LABOUR :-

Specialized skilled labour, special tools and materials are needed.

FACTORS DETERMINING NURSERY LOCATION :-

In selecting site a site for establishment of a nursery, a number of factors must be considered.

1. WATER SUPPLY :-

Nursery should be located where there is abundant supply of water, particularly from wells, boreholes, streams, sources of pipe-borne water. Cheap water supply reduces the operating cost of the nursery.

2. ACCESSIBILITY :-

The nursery should be easily accessible to the field, to the road & market.

3. SLOPE OF LAND GRADIENT :-

Flat land is ideal for establishment and maintenance of a nursery. It reduces the rate of soil erosion. It also enhances application of irrigation water. However, appropriate conservation methods should be undertaken if a nursery is sited on sloping land.

4. SOIL :-

Nursery soil should be fertile, well drained and non-saline and free from pests, diseases and weeds.

5. LABOUR SUPPLY :-

Nursery should be located where experienced and skilled labour are available or where they can be trained.

NURSERY TOOLS AND THEIR USES

1. CUTLASS OR MACHETE :-

Cutlass is used for clearing the nursery site. It may also be used for demarcating boundaries and digging holes.

2. HOE :-

It is mainly used for making mounds, ridges and nursery beds. It is also very effective for breaking up the soil, loosening

the soil surface and in sowing seeds.

3. HAND TROWEL :-
It is used for transplanting seedlings from the nursery to the field and also for digging shallow holes in the beds and for applying manure.

4. GARDEN FORK :-
It is used for lifting manure during compost making and for spreading manure in the new field. It is also used for loosening the soil [illegible] transplanting.

5. [illegible] PLANT TOOL :-
It is used for digging and transplanting small plants.

6. GARDEN LINE
It is used for laying out beds and for making straight lines while planting.

7. RAKE :-
A rake is used for levelling manure during compost making and for spreading, levelling the soil surface and breaking large soil crumbles into small ones. It is also used for removing stones and weeds from seedbeds and for covering vegetable seeds after they are broadcast.

8. WATERING CAN :-
It is used for sprinkling water onto young seedlings and for irrigation during dry season planting.

9. TAPE :-
A tape is used for taking about a detailed measurement in the field.

10. RANGING POLE :-
It is used for marking surveyed stations or intermediate stations. It is also useful in marking straight lines.

NURSERY DURATION FOR SPECIFIC VEGETABLE TYPES

VEGETABLE TYPES		NURSERY DURATION (DAYS)
[illegible]	[illegible]	30
[illegible]	[illegible]	21 - 25
[illegible]	[illegible]	21 - 28
Brassica oleracea	cabbage	25 - 35
[illegible]	[illegible]	30 - 40
Solanum melongena L.	egg plant	30 - 50
Capsicum annuum L.	sweet pepper	35 - 45
Capsicum frutescens L.	hot pepper	35 - 45
Lycopersicon esculentum Mill	tomato	35 - 55
Daucus carota L.	carrot	25 - 30
Allium cepa L.	onion	45 - 55

FIELD ESTABLISHMENT :-

LAND PREPARATION :-

Vegetables differ widely from field crops in their requirements for land preparation and cultural practices because of their morphologic, growth habit and their economic values. In preparing land for vegetable production, the following factors are taken into consideration, ecological location, mode of cropping, [illegible], crop adaptation, and the type of vegetable to be grown.

CLEARING :-

It is often necessary to remove the vegetation cover when a piece of land is to be used for vegetable production. The land clearing methods may involve removing the remains of previous crops and weeds undergrowth, cutting down the woody shrubs and trees and burning them. Machete is used for clearing in a small scale production while heavy machine like bulldozer is used in commercial production.

LEVELLING :-

When the site has been cleared, uneven land may have to be levelled. This facilitates the process of ploughing, harrowing, ridging and layout of the site.

Tillage :-

Tillage is the term used for physical & mechanical manipulation of the soil to prepare it for use in crop production. In vegetable production the main objectives for tillage are to [illegible] growth and yield. In [illegible] cultivation [illegible] weeds [illegible] growth, improves the physical condition of the soil and conserves its water and nutrient content.

Importance of Tillage :-

1. Seed bed preparation :- A seed bed provides an environment in which a seed can germinate and grow. It is loose, well drained, deep enough, makes good contact with the seed, retains adequate moisture and is free of weeds.
2. Soil levelling :- Land levelling may be required in order to [illegible] in a [illegible] method of irrigation.
3. Weed control :- Weeds are menace in crop production. They compete with crops for plant environment factors; they need to be controlled before planting and during growth of the crops by appropriate tillage methods.
4. Incorporation of organic matter and soil amendments :- Organic materials, crop residues, fertilizers and other chemicals may be added to soil by ploughing them under at or before the time of soil preparation.
5. Improvement of physical properties of the soil :- Compaction of the plastic [illegible] drainage, aeration and root growth [illegible] may be [illegible] by tillage methods.

Problems of vegetable production :-

- Climatic conditions for the vegetable production [illegible]
- Problems can be:
  - Biological
  - Agronomic
  - Climatic
  - Economic
  - Socio-logical
  - Environmental
- **Biological Problems :-**
  - perishable nature of vegetables
  - pests and diseases problems
  - soil fertility and salinity of soil

ACTIVITY LOG FOR THE FIFTH WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day – 1	I found new farmers they are buying vegetables & fruits [illegible] [illegible] [illegible]	got [illegible] to [illegible] to [illegible] by [illegible]	[signature]
Day 2	many of the farmers are they are arranged fruits & vegetables [illegible]	primary & secondary all [illegible]	[signature]
Day – 3	most of the farmers they are [illegible] organic [illegible]	only 55% farmers	[signature]
Day – 4	many of the fruits purchased high prices to four days	due to demand [illegible] & [illegible] middleman	[signature]
Day – 5	I found new farmers they are selling & distributing their [illegible]	they are distribute they are different selling different places into [illegible]	[signature]
Day – 6	the fresh vegetables & fruits in [illegible] organic	all items good quality products	[signature]

MARKET DEVELOPMENT STRATEGIES FOR VEGETABLES :-

Steps involved in farming marketing strategies can be categorized into four main areas which should be undertaken that are inter-related. For example, deciding on what to produce depends on where and who the target market are, by extension the packaging structure or [illegible].

- Decide on target market
- Produce selection and timing
- Price Intelligence
- Understand nature of human psychology.

DECIDE ON TARGET MARKET :-

Deciding on the target market is mostly [illegible]. In general, the larger the volume of produce produced, the [illegible] the number of marketing alternatives. Small farmers are limited to local markets while larger farmers can explore the opportunities in regional markets. [illegible] what [illegible] [illegible] [illegible] [illegible] small farmers can explore the opportunities in regional markets. Many small farmers [illegible] their produce. They buy appreciable quantity and transport such to regional urban markets where it would be sold at higher margin.

FARM GATE SALES :-

One of the most popular methods of sales of farm produce especially with locals is selling at the farm. It has the advantage in that it avoids the risk of selling at uncertain prices at the market [illegible] vegetables after spending so much on produce using conventional [illegible] [illegible] as much [illegible] of total sales of produce. In many occasions, selling at the farm gate also eliminates the cost of [illegible] for [illegible]. The farmers can also [illegible] [illegible] the cost of [illegible] depending on the negotiation [illegible] with the buyers.

DIRECT MARKET :-

Direct marketing one is that which give the farmer direct contact with the end consumers. It has the advantage in that the farmer sells at retail price with good higher margin but it is more costly to set up and managed and it can only be employed by small farmers in places who are [illegible] and it can only be employed by small farmers [illegible]. Stringent quality criteria. There are number of options available with direct marketing channels: road side shop, pick your own, door to door, community supported agriculture must be considered etc.

1. ROAD SIDE STALL :-

The farmer in this case can decide to display the produce at road sides with heavy traffic whereas the passers-by buy the produce. You need to have [illegible] a lot of this along [illegible] and local [illegible] which [illegible]. It is more of guaranty [illegible] potential buyers only [illegible] by them.

2. DOOR TO DOOR MARKET :-

This is also a good method of selling your produce to end consumers but in this case a good [illegible] should be used and a need for aggregation and constant communication with potential customers before the produce is ready to buy in its [illegible] major challenge might also [illegible] your own [illegible]. It is when you are [illegible] planting [illegible] and an aggregate [illegible] other farmers [illegible] to be able to supply continuously [illegible] that this is mostly suitable for small growers e.g. [illegible].

3. COMMUNITY SUPPORT AGRICULTURE (CSA) :-

This method is uncommon in this part of the world. It involves the farmers supplying the consumers a lot of share of crops on weekly basis. It involves [illegible] the customers paying about [illegible] on annual basis. The challenge might be [illegible] continuity when there is crop failure [illegible] with crop farming.

4. [illegible] :-

The growers may also decide to operate a fresh vegetable retail store in urban centers where produce are directly sold to consumers. In this case, going by my experience in this business, it is [illegible] that the grower also aggregate from other growers to [illegible] to ensure

LOCAL OR SMALL FARMERS MARKET :-

CENTRAL DAILY NEEDS MARKET :-

LOCAL, REGIONAL AND NATIONAL GROCERIES AND BIG RETAIL STORES :-

FARMER'S COOPERATIVES :-

[illegible] that [illegible] but not [illegible] on planting, [illegible], [illegible], [illegible] [illegible] of [illegible] and labour [illegible].

[illegible]

[illegible] in [illegible] may be [illegible] of the [illegible] of degree to [illegible] with [illegible] degree of [illegible], [illegible] it is [illegible] the [illegible] [illegible] [illegible] from other [illegible]. [illegible] [illegible] [illegible] to [illegible] [illegible] this [illegible] at [illegible] a lot of [illegible] [illegible] [illegible] to [illegible] [illegible] this [illegible].

DECISION ON THE TARGET MARKET :-

But before you [illegible] [illegible] [illegible] of this you want to [illegible] the target market [illegible] to [illegible] of its [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible], the average quantity per [illegible], the packaging [illegible], the [illegible] [illegible], the payment [illegible] etc. It is often good to [illegible] [illegible] [illegible] [illegible] [illegible] of the [illegible] who [illegible] [illegible] [illegible] to the markets [illegible] [illegible] [illegible] to [illegible] to [illegible] [illegible] of this wealth of experience.

DECIDE ON RETURN ON INVESTMENT :-

In addition to the choice of target [illegible], there is a [illegible] to [illegible] the profitability of the [illegible] you [illegible] want to [illegible] a [illegible] analysis of what it would cost to produce this [illegible] [illegible] from the cost of [illegible] to labour, transportation and [illegible] to [illegible] [illegible].

CALCULATE RISK INVOLVE IN PRODUCTION :-

Every business has it [illegible] [illegible] [illegible] farming business [illegible] [illegible] [illegible] [illegible] [illegible] about what you want to [illegible] [illegible] [illegible] production and [illegible] [illegible] such as [illegible], [illegible] [illegible] [illegible] [illegible] and price fluctuation among others.

UNDERSTAND MARKET TREND [illegible] :-

Every crop has it [illegible] [illegible] [illegible] its [illegible] during the course of the year. Ensure you understand this so that you don't produce [illegible] [illegible] when you don't have competitive advantage [illegible] [illegible] [illegible] is very [illegible].

[illegible] [illegible] :-

The average price of veggies is [illegible] changing throughout the year. What often determines the price is the [illegible] of demand and supply. [illegible] [illegible] [illegible] [illegible] [illegible], the price [illegible] [illegible] mainly on the [illegible] [illegible] [illegible] [illegible] and the [illegible] of the consumers [illegible] [illegible] [illegible] [illegible].

higher quality of fresh produce. On the other hand, when selling perishable [illegible] the price the buyer at [illegible] period this price is often determined by market supply and demand forces.

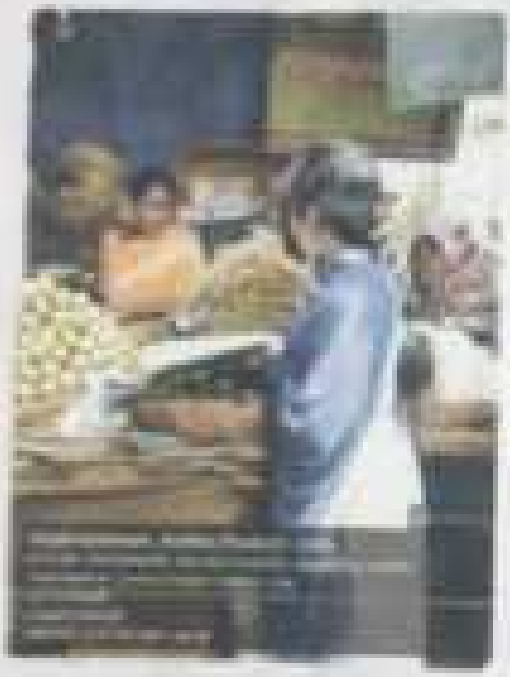
It is easier to fix prices with supermarkets [illegible] dealing directly with consumers, however, dealing with new markets may be quite [illegible]. When you sell your produce in the market, conduct price intelligence. This is done by [illegible] to [illegible] in the [illegible] to have a [illegible] for sale.

UNDERSTAND AND USE HUMAN PSYCHOLOGY :-

PSYCHOLOGY OF FIRST IMPRESSION :-

Human being naturally has tendency of being carried by the first impression they [illegible] this also plays out at the market [illegible] play out at every level of the value chain: farm gate, wholesale market and retail level. Local market retailers are aware of this [illegible] out of it a lot [illegible] the basis of price psychology. While displaying their fresh produce, they put the very best [illegible] in the very [illegible] to attract [illegible] by customers [illegible] customers [illegible]. It is often very difficult to [illegible] the [illegible] for the very [illegible]. Even if the customers do not really want to buy that product [illegible] after [illegible] buying.

Farmers who sell directly to consumers [illegible] to provide a dependable supply of uniform quality [illegible] attractive display [illegible] and effective advertising, pricing and selling strategies.



Student Self Evaluation for the Community Service Project

Student Name: [illegible]

Registration No: [illegible]

Period of CSP: From 3/12/22 To 10-1-23

Date of Evaluation:

Name of the Person-in-charge: D. Deepthi

Address with mobile number: [illegible]

Please rate your performance in the following areas:

Rating Scale: 4 is lowest and 1 is highest rank

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Presentation	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Date:

Signature of the Student

Evaluation by the Person in-charge in the Community/Habitation

Student Name: [illegible]

Registration No: [illegible]

Period of CEP: From [illegible]

Date of Evaluation:

Name of the Person in-charge: [illegible]
Address with mobile number: [illegible]

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Punctuality	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Date:

Signature of the Supervisor