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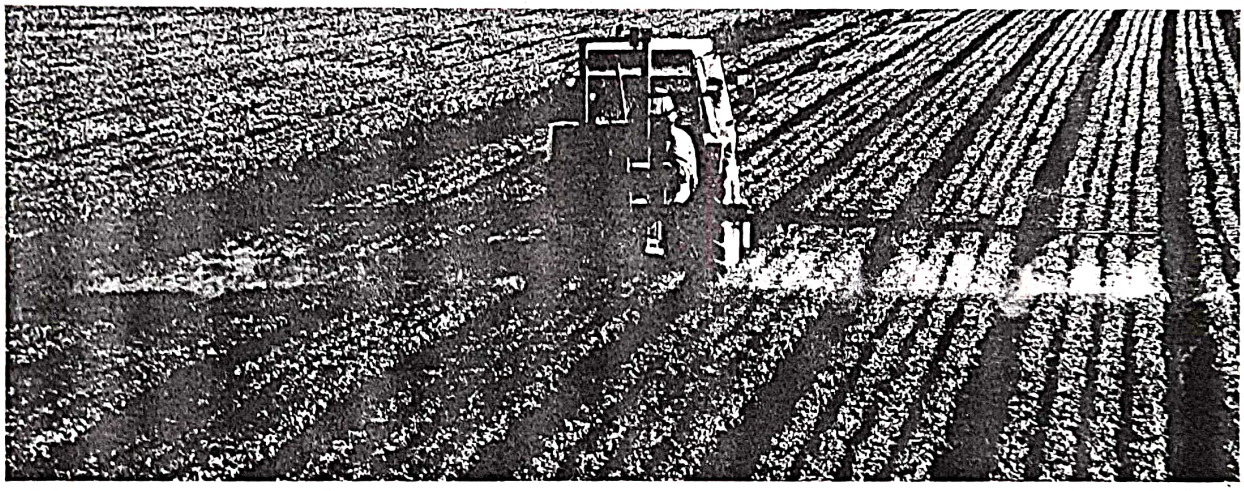

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Journal of Research and Development
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INDEX

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STUDY OF INTERCROPPING IN ORCHARDS OF NASHIK DISTRICT

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Abstract

Nashik is situated on the banks of river Godavari. At micro level it has two agro climatic zone I and II. And it is famous for orchards such as grape, pomegranate, guava and mango cultivation. Considerable interspaces is available initial stages of orchards'. That is utilized for growing selected intercrops of short duration (4 - 6 months) and after 2 years intercropping was discontinued. The main objective of this study is to understand the variety of intercrops cultivated and their advantages by collecting the data at farm level through questionnaire method. It was found that intercropping gives additional yield income or unit area than sole cropping. As well as inter-crops maintain the soil fertility as the nutrient uptake is made from both layers of soil, reduction in soil runoff and controls weeds. Ultimately intercropping with cash crops is higher profitable such as onions and vegetables.

Introduction

Today new technologies, new researcher methodology to study the nature of soil, its suitability for hi-yield crops, new farming technologies etc have given a big boost to the development and progress of our agriculture sector. In addition to this, considerable interspace is available between new planted orchards such as grapes guava, pomegranate mango up to 2 years. This vacant space between two fruit plants was utilized by growers for cultivating a suitable intercrop. It gives additional income from the agricultural land engaged in non bearing stage of pomegranate orchard. The selected intercrops were of short duration (4 - 6 months) and after 2 years intercropping was discontinued. Therefore, in this paper focus is given on prominent intercrops cultivated in districts.

Objective of study:

The main objective of this study is to understands the variety of intercrops cultivated and their advantages to the farmers in study area

Study Area

Nashik is situated on the banks of river Godavari. Some tehsils of Nashik district lie in agro climatic transition zone I like Kalvan, Dindori, Nashik, Igatpuri and remaining talukas lie in agro climatic scarcity zone II like Baglan, Chandvad, Niphad,Yeola and Sinner. Where different fruit crops are cultivated as well as variety of intercrops are grown.

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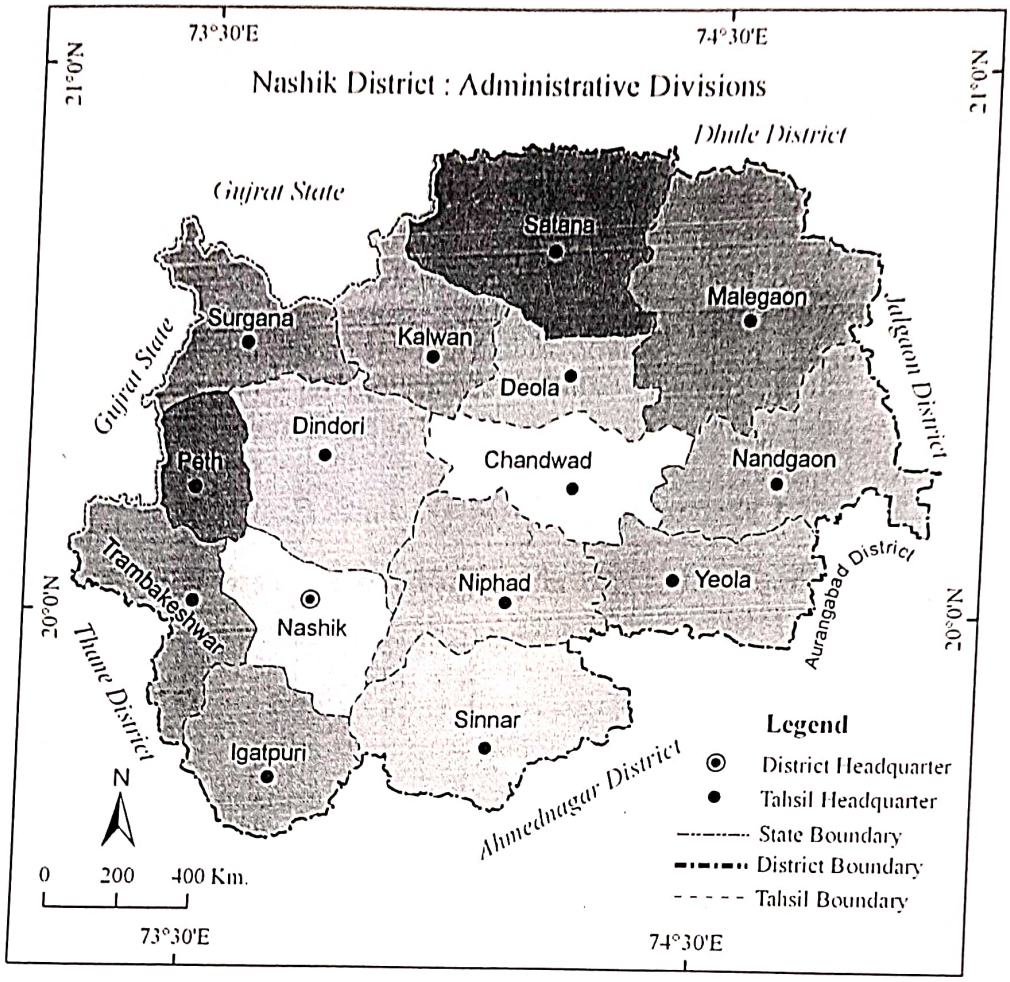

Hypothesis

Varieties of intercrops grown in orchards are beneficial for the soils as well as farmers.

Methodology

Random sampling method was adopted for selection of growers. That is primarily observing fields of the intercrops grown in fruit gardens. Then with help of questionnaire the primary data was collected from 67 growers. It was sorted and analysed according to intercrops crops grown in the field.

Discussion

Considerable interspace is available between new plants up to 2 years. This vacant space was utilized by growers for cultivating a suitable intercrop. It gives additional income from the agricultural land engaged in non bearing stage of pomegranate orchard. The selected intercrops were of short duration (4 - 6 months) and after 2 years intercropping was discontinued.

However with regard to intercrops there were contrasting opinions of the experienced growers. On the one hand, the growing of intercrops in open spaces not only limits weed growth on orchard floor but also gives additional income when plants are in non fruit bearing stage. While on the other hand, it is believed both the main crop and the intercrops may not be adequately manure and managed well. It can hamper growth and development of new plants so also affect on the long term productivity of pomegranate crop.

Table No. 1.1 and Figure No. 1.1 indicates that 82.60% sample growers harvested variety of intercrops including cereals (bajara and wheat), oilseeds (groundnut and soyabean), pulses (gram), fruits (watermelon on drip irrigation) and vegetables (brinjal, chilies', cabbage, cauliflower, tomato). But onion was a general cash crop that gives more income, hence it was preferred by more than half of sample growers.

Table No. 1.1 Intercrops Practiced by Sample Growers

Sr.No.	Name of crop	No. of Sample Growers	Percent in Total
1	Onion	241	53.08
2	Oilseeds	45	9.91
3	Pulses	36	7.93
4	Vegetables	29	6.39
5	Cereals	15	3.30
6	Watermelon	09	1.98
7	Intercrop not practiced	79	17.40
	Total sample growers	454	100.00

(Source: Compiled by researcher)

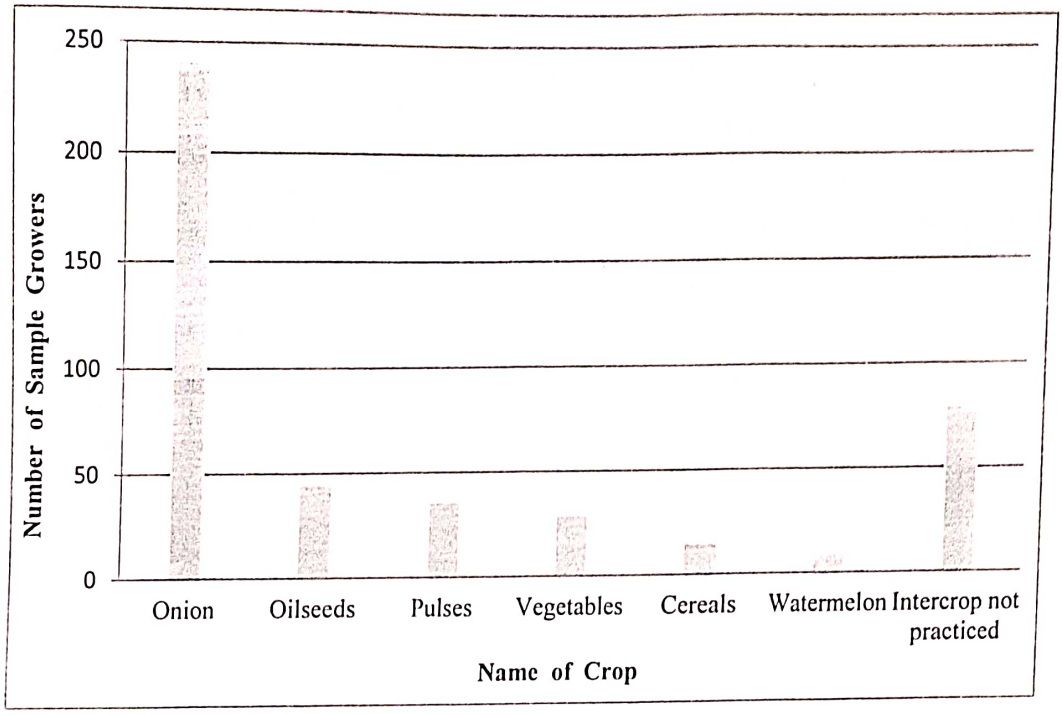

Figure No.1.1 Intercrops Practiced by Sample Growers

Findings

Above discussion clears that intercropping gives additional yield income or unit area than sole cropping. And it acts as an insurance against failure of crops in abnormal year. Moreover, inter-crops maintain the soil fertility as the nutrient uptake is made from both layers of soil. In the opinion of growers it also helps in reduction in soil runoff and controls weeds. Inter cropping system utilizes resources efficiently so their productivity per unit piece of land was increased. Ultimately intercropping with cash crops is higher profitable such as onions and vegetables.

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