INTRODUCTION:

Agriculture is one of the oldest and most fundamental primary occupation of all human beings since stone age. It is a foundation of all social Cultural and Economical condition of mankind. The oldest civilization of the world depends upon Agriculture. Since the agriculture is one of the fundamental economic activities (Pawar M.S. 2008) of a man and is closely related with various geographical factors.

The physical factors directly influence agriculture. Where as the socio-economic conditions have an indirect influence. Availability of irrigation facilities, quality of population engaged in the field of agriculture, transportation and market facilities, quality of population engaged in the field of agriculture, innovations in high productive seeds, agricultural equipments, modern technology, use of chemical fertilizers and hybrid seeds etc. non-physical factors play a crucial role in the field of agriculture (Pawar V.S. 2011). In ancient times the farming was not only a process of food production or a source of income, but it was essentially a way of life. The traditional knowledge of agriculture, which was essentially organic was nurtured and groomed by millions of farmers, over several hundred years and it was continued to grow systematically without an adverse impact on soil and environment. This wisdom kept on growing and developing from generation to generation in families such traditional farm families are still surviving in many parts of the country and are living authorities of traditional agriculture and the repositories of our traditional wisdom (Chonakr P.K. 2003).

THE CONCEPT OF ORGANIC FARMING:

There are many definitions for the organic farming but all coverage to state that it is a system that relies on ecosystem management rather than external agricultural inputs. As per the definition of FAO/WHO codex Alimentarius Commission. 1999 “Organic farming is a holistic production management system which promotes and enhances agro-ecosystem health including biodiversity, biological cycles and soil biological activities” It
emphasizes the use of management practices which is preferred to the use of off-farm inputs taking into account that regional condition require local adopted systems (Dhahamma A.K. 2003).

The concept of organic farming is based on following principles.

1) Nature is the best role model for farming since it does not use any inputs nor demand unreasonable quantities of water.

2) The entire system is based on intimate understanding of nature’s ways. The system does not believe in mining of the soil of its nutrients and do not degrade it in any way for today’s needs.

3) The soil in this system is a living entity.

4) The soil’s living population of microbes and other organisms are significant contributors to its fertility on a sustained basis and must be protected and nurtured at all cost.

5) The total environment of the soil, from soil structure to soil cover is more important.

In today’s terminology it is a method of farming system which primarily aims at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (Crop, animal and Farm wastes, aquatic wastes) and other biological Materials along with beneficial microbes (bio-fertilizers) to release nutrients to crops for increases sustainable production in an eco-friendly pollution free environment (Singh G.R. 2001).

In philosophical term organic farming means “farming in spirits of organic relationship. In this system every thing is connected with every thing else. Since organic farming means placing farming on integral relationship we should be well aware about the relationship between the soil, water and plants, between soil-soil microbes and waste products, between the vegetable kingdom of which the apex animal is the human being, between agriculture and forestry, between soil, water and atmosphere etc. It is the totality of these relationships that is the bed rock of organic farming (Thapa U. and Tripathi E. 20006).
LOCATION OF STUDY AREA:

Dhule district is Located in the north-eastern part of Maharashtra. The district has occupied the total area of 8062.11 sq. km. between latitudes 20° 38 N and 21° 39 N and longitudes 73° 50 E and 75° 13 E in survey of India degree sheet Nos. 46 G.H.K.L. and O. The district has occupied 2.6% of the total area and a population of 12,07,947 as per the 2001 Census.

The Dhule district comprises of 681 Villages out of them, 678 villages are inhabited and 3 Villages are uninhabited. These village are distributed in four tahsils namely Dhule, Shirpur, Shindkheda and Sakri.

The district is triangular in shape. It is situated in the central basin of River “Tapi”.

GEOLOGICAL STRUCTURE:

Structurally, most of the study area is covered by homogenous deccan trap. The deccan trap is comprised by numerous horizontal lava flows of basaltic composition. The Tapi valley proper and valleys of its tributaries re covered by the alluvium layers, much thicker and wider on the west.

RELIEF:

The study region has varied topographical features and landscape most part of the study region is at an elevation of less than 600m above mean sea level. Some areas near the northern and the southwestern boundaries are at an elevation greater than 600m above mean sea level.

Depending upon elevation, slope and ruggedness of terrain the study region can be divided into three major physiographic zones.

1) The Northern mountainous region of Satpuda.
2) The fertile Tapi valley in the Center.
3) The southern hilly region.
DRAINAGE:

The Study region is a part of Tapi Basin and hence, it is completely drained by the Tapi and her tributaries. The Tapi is the second longest west flowing river of the peninsula. During much of its journey the Tapi flows through the rift valley and discharges its water into the Arabian sea. The Tapi and its tributaries drain the catchments between the Satpura mountain Ranges to the north, stretching east-west direction and uplands of Deccan plateau and parts of Sahyadri mountain to south. The tapi takes its source in the highland of central India, flows in a westerly course of 725 kms. About 56 km of this course lie within the limits of Dhule district. It has almost a straight course throughout district. It flows in a fairly deep valley with high-eroded steep banks, except few places where they are scarred by courses or opens to tributaries.

CLIMATE:

The district is characterize by warm and dry climate summer are dry were as winter are cold the average temperature during the month of may is $45^0$ c and average temperature during December is $12^0$ c.

The average rainfall is 60 cm. the distribution of rainfall is uneven and unreliable therefore dhule district come under “drought prone region” the district received most of the rain from south west monsoon. The western region receive more rainfall as it is located on higher elevation, where as shirpur, shindkheda and dhule receives comparatively low rainfall.

SOILS:

Soil may be defined as an unconsolidated thin layer of the earths crust. Which serves as a natural medium for the growth of plants. The soils are formed due to interaction of climate and vegetation on parent rocks as conditioned by topography over a period of time.
The concept of fertility and productivity of soil is very complex and is used indifferent sense in different context. Fertility is the quality that enables the soil to provide the proper compounds in proper amounts and in the proper balance for the growth of the specified plants. Therefore an intimate knowledge of soil is pre-requisite for all agricultural operations and planning.

The soils of the district are derived from trap rock on the basis of depth, texture and colour soils of the region can broadly be classified into three major types.

1) Deep black cotton soil.
2) Medium black soil.
3) Coarse shallow soil.

**NATURAL VEGETATION:**

In the Dhule District the seasonal rainfall and the nature of the soils provide a variety of vegetation ranging from grasses and thorny trees to deciduous trees. Distribution of natural Vegetation is governed by physiography. In the northeastern mountainous region therefore, extensive area in under forest. Teak is the most important commercial variety observed in this region. Other trees observed in this region are Dhawada, Shisam, Khair, Tendu, Palas, Anjan, Bamboo etc.

In the southern hilly regions, there are small Pockets of forests. The south central part of the study region, which receives scanty rainfall, has extensive area under scrubs and grasses Remaining portion of the region is predominantly used for cultivation. The trees Neem, Babul, Bor, Hivar, Chinch, Pimpal and Mango are found in scattered from all over the Dhule District.