# ABSTRACT

Nature is a gift of God. Everyone should follow the laws of nature to have socially, culturally, economically and healthy life as "health is wealth", But to meet demands of increasing population in the world, exploitation of natural resources started. To satisfy the need of more food "green revolution" with technological interventions in agriculture was widely adopted by farmers to exploit the nature for maximizing agriculture production. The Green revolution launched in the mid sixties became a landmark in transformation of agriculture in India. The seed, fertilizer, plant protection, irrigation and other allied technologies of intensive nature promoted since then, made the way for a substantial increase in food production, leading to self sufficiency and even surplus for export. The use of chemical fertilizers and pesticides caused serious damage to environment and human health. Besides, secondary Stalinization, decrease in soil fertility, resistance to pesticides in insects, increase cost of production are gradual effects, which are challenging the sustainability of agriculture production at high level.

Excess of use of chemicals have deteriorated soil and its water holding capacity and infiltration. Pesticides cause death, disability, organ dysfunction, incapacitation and many other illnesses. The use of Synthetic pesticides and fertilizers and other chemicals results in contamination and adulteration of food. Pollution of water and air and increased morbidity and mortality for the exposed population.

All the harmful chemicals have caused many problems. It has the consequential occurrence and accumulation of toxic chemicals residues, their metabolites and a heavy metals like Hg, Pb, Cr, etc. at lethal levels in soil, water and air and ultimately entering into the food chain, causing very serious health hazards and irreparable damage to all the living beings. More than half of all pesticides used in Indian agriculture are banned or severely restricted in many developed countries. Globally, Indian people have the largest levels of DDT accumulation in their adipose tissue.

291

To reduce the effect of harmful chemicals to the human body, there is a need to reduce the use of chemical fertilizers and pesticides. That means the farmers need to adopt "organic farming" from "conventional farming".

Today, India is not in a position to do away with the use of synthetic agro chemicals, especially the inorganic fertilizers, in view of the large and increasing population demand for food commodities. But through systematic use of agrochemicals and organic manure, India can move towards organic farming. The term organic farming refers to a movement rather than to a single policy. Organic farming is not merely concerned with the product but the whole system used for production. The word "Organic" refers not only the food itself but also to how it was produced. It can be concluded that "Organic food is food which is grown, stored and processed without using most conventional pesticides, fertilizers made with synthetic ingredients or sewage sludge, bioengineering or ionizing radiation".

Organic manure is an environment friendly ecological production system that promotes and enhances biodiversity, biological cycle and biological activities. It is based on minimal use of off farm inputs and management practices that restore, maintain and enhance ecological balance. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants and animal.

Organic food is today's answer not only to sustainable food production but also to the healthy and safe food. The availability of organic food is uncertain which influence the buying practices of homemaker. It is the responsibility of the homemakers to provide food items, which are enhancing the health of the family members. As it is believed that organic food products may be safer for the health than the conventional food products, she should buy organic food to a greater extent.

The field of Home Management is concerned with the resource management at micro and macro level. Its curriculum has environment education as a core component, where various environmental problems are discussed and individuals are made aware of their responsibility towards protecting the environment for sustainable development. Since organic farming and the products are one of the ways for environmental protection, it was thought essential and relevant to conduct a study on various aspects associated with organic food. The homemakers have the prime responsibility of providing healthy food to its family members. Hence, it was thought essential to find out the extent of utilization of organic food by them.

There is a need to create awareness about the advantages of organic food among people and promote its use. There is also a need to find out the problems people face in obtaining the organic food items, so that remedial measures can be taken up. A survey of the satisfaction experienced by the consumers of organic food would reveal the aspects of with which consumers are not satisfied. This can act as a feedback to the organic food growers and providers. The producers and sellers of organic food as well face difficulties. There is also a need to find out their problems so that suitable solutions can be found out. This may help them to continue producing and selling organic food. Hence the present research was planed to survey the consumers, producers and sellers of organic food on various aspects to find out their problems and satisfaction. Along with this the present research attempted to assess the food quality of organic food and conventional food.

The present study attempts to find out the extent of utilization, problem faced and satisfaction experienced by consumers of organic food. It also attempts to assess food quality of selected items of food grown through organic farming and conventional farming method. The study was limited to Vadodara city only.

Such a study intergrading various people associated from production to consumption of organic food and assessing the quality of organic food was difficult to find in the literature surveyed. The study would provide a very useful feedback to all the concerned people/ organization/ institutions to promote organic food.

The review of existing literature covered various topics, namely definitions of organic food, pesticides and fertilizer content and its impact on health, pesticides and fertilizers and its impact on soil, consumer's preference regarding organic food, standards and certification of organic food and various logos of organic food and certifying agencies. It was found that although many researches had been conducted on organic farming and its impact on soil, there is a dearth of information on comparison on organic food and conventional food. It was also noted that there were very few studies conducted in India on organic food. Therefore a need was felt to conduct a study on organic food to find out consumer's problem- their satisfaction, extent of use and its food quality.

The present research design was descriptive and experimental in nature. The research was conducted in 5 phases. One was the study of shopkeepers, second of the consumers, third of the farmers, fourth was the food quality assessment and fifth was enhancement of knowledge of women about organic food.

The shopkeepers of Vadodara selling organic food (7 outlets) were asked about the reasons for selling organic food, the food items they sold through out the year and the problems they faced. In phase two, the consumers of organic food contacted through various shops selling organic food were interviewed. 150 such consumers (women) gave information about the extent of utilization, problems, satisfaction about organic food. The scales were developed by the researcher herself and subjected to establishment of content validity and reliability through test-retest/ split half method. In phase three, case study of farmers growing organic food was conducted through interview and observation. Information was gathered for the motivating forces; advantages and problems associated with organic farming. In the fourth phase the food guality was assessed in the Foods and Drugs Laboratory at Vadodara on the selected organic and conventional vegetables, fruits, cereals, pulses from neighbouring farms situated around Vadodara. Sensory evaluation test was done by a panel of judges in the laboratory of Home Management department. The judges assessed the appearance, aroma,

taste, texture etc of selected organic and conventional food items. The cooking time of organic and conventional food was judges in laboratory situation. Phase fifth was an educational programme to enhance the knowledge of young women. The educational package comprising of information about various aspects of organic food was developed by the researcher on electronic media and print media. 75 female students of Home Management department from Faculty of Family and Community Sciences were exposed to. A pre and post test of their knowledge was conducted. This helped to establish efficacy of the educational package.

## Major findings

## Phase I

There were seven shops selling organic food in Vadodara city and one organic food dhaba. Among these shops, 3 shops were selling only organic food whereas remaining 5 shops sold organic food items along with the conventional food items. Majority of the shops sold few items with certification mark and few without certification mark. Nearly three-fourth of the shopkeepers did not know about any certifying agency. It was observed that fruits and vegetables were available almost entire year at six shops of Vadodara city.

5

It was found that all the shopkeepers were influenced to a great extent to sell organic food by the reason that "organic food is good for health". A wide majority of the shopkeepers said that since organic food has high nutrient content, they were influenced to great extent to sell organic food. Threefourth of the shopkeepers stated selling organic food as they wanted to support organic movement.

The shopkeepers faced problems that the organic food could not be purchased in bulk because organic food required special storage conditions. Three-fourth of the shopkeepers always faced problem that consumers did not buy organic food regularly as the whole range of organic food items are not available in the market. Three-fourth of the shopkeepers always faced

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problem that the price of organic food items had to be kept high because the production was less.

# Phase II

150 consumers (women) were selected through convenience sampling method from the shops selling organic food. The mean age of consumers was 45.79 years and more than half of the consumers belonged to the age group 36-50 years. More than half of the consumers were graduate and were employed. Mean income of consumers were Rs.33, 998. Majority of the respondents belonged to nuclear family. The shops selling organic food were near to the consumers' residence.

A wide majority of consumers said that the reason "organic food is good for health" and "Organic food is considered to be nutritious" and "the taste of organic food is better than conventional food" influenced them to great extent for buying organic food. More than three- fourth of consumers were influenced to a great extent by the "qualities of the shops selling organic food". A little less than two third of consumers were influenced to a great extent by the reasons that " Organic food is eco-friendly" and "to support organic farming movement". Overall view of the reasons which influenced consumers to buy organic food showed that majority of consumers were influenced to moderate extent by the given reasons for buying organic food.

It was observed that little more than three-fourth of consumers had moderate extent of use of organic vegetables, fruits and organically processed sugar, jaggery and honey. Three-fourth of consumers had medium extent of utilization of organic food items. A wide majority of consumers reported that organic food was available in particular season only hence that created problem. Nearly three-fourth of consumers reported that they faced problem as the vegetables were supplied in less quantity whereas little more than half of consumers reported that organic products with certification mark were not available. An overall view showed that majority of the consumers faced problems at medium extent with the use of organic food whereas very few faced problems at higher extent while using organic food. Majority of consumers were satisfied for all aspects of appearance of organic food, though the food items were small in size, location of shop, taste and price of organic food. An overall view of the extent of satisfaction of consumers on use of organic food showed that the extent of satisfaction was low only for the quantity supplied of organic food in the shop. For availability, price, accessibility, appearance of organic food, taste, cooking time and quality of organic food, the score were found to be high. So it could be concluded that for all these areas they had more extent of satisfaction.

Testing of hypothesis through ANOVA and t test showed that the extent of influence of various reasons for buying organic food was affected by family income. Extent of utilization of organic food was affected by education of respondents. Extent of satisfaction felt on using organic food was affected by the type of family. A positive relationship was found between extent of influence of various reasons for buying organic food and extent of utilization of organically grown vegetables and fruits. A positive relationship was found between extent of utilization of organic food and extent of satisfaction felt on using organic food. A negative relationship was found between the extent of problem faced while using organic food and extent of satisfaction felt on using organic food. Negative relationship indicated that higher the extent of problems faced, lower was the extent of satisfaction experienced.

## Phase III

Five farmers engaged in organic faming wee selected for case study. The researcher visited their farms and talked at length about various aspects. The Motivational factor for starting organic farming were training programmes organized by Anand Krishi University, camp organized by NGO and Swadhyay activities. It was found that the farmers faced difficulty in marketing of food products grown organically. The farmers were waiting for some local agency to start giving certificate. It was found that farmers were not satisfied with the government as it was not providing any support to the poor farmers who had started organic farming. Farmers gained knowledge about various methods of making organic manure. They also gained profit as the production increased eventually.

## Phase IV