

A Mobile Application for Organic Farming

B M Vidyavathi^[1], D Ganesh^[2], A Prasanna^[3]

K Aravind Kumar^[4], Gangadhara^[5]

Professor^[1], Department of computer science and engineering Ballari, Karnataka, India.

Student^{[2], [3], [4], [5]}, Department of computer science and engineering Ballari, Karnataka, India.

ABSTRACT

The organic food in India is currently in its beginning stages of evolution, it is growing at a rapid rate of 25% - 30% from year to year. High disposable income and increased health awareness are key factors that have resulted in this increased demand. Farmers don't possess any knowledge on how to grow organic crops, how to sell and where to sell them at the commending price. Even consumers don't have any idea, wherein the organic commodities are available at nearby vendors. To overcome the above problems we have come up with an idea of a mobile application that provides information about how to grow the organic crops as well as motivate farmers to adopt, cultivate organic farming and provides a platform to sell their crops to nearby vendors. This application assists Consumers to get information about the availability of organic products at nearby vendors, additionally helps them to take care of their potential health and increase their life span.

Keywords:- Organic farming, soil conservation, quality of life.

I. INTRODUCTION

Organic farming is a technique, which involves cultivation of plants and rearing of animals in natural ways. This process involves the use of biological materials, avoiding synthetic substances to maintain soil fertility and ecological balance thereby minimizing pollution and wastage. The requirement for organically produced products grown through traditional practices is increasing day by day throughout the world. Organic produce contains a higher concentration of minerals, enzymes, vitamins, trace elements, and even cancer-fighting antioxidants than conventionally grown food. Organic farming can solve many environmental problems. This method helps to maintain ecological balance and cycles in harmony with the environment. Food and Agricultural Organisation (FAO) said that organic farming is the best method for protecting/sustaining a soil-plant environmental relationship and also to alleviate the adverse effect of climate change. But, the major constraints for organic farming are ineffective technology and lack of guidance to farmers.

Heeding are the advantages of organic farming:

1. Organic farming is the best for the Ecosystem and helps in soil conservation.
2. Organic food contains more nutrients, minerals, and antioxidants that help to fight against cancer, stroke, and heart problems.
3. Organic farming produces higher yields with health benefits.
4. Farmers can reduce their production costs because they don't need expensive chemicals and fertilizers.

5. It can slow down global warming and stops groundwater pollution.

II. LITERATURE REVIEW

A In the present agricultural scenario, crop yield is declining day by day despite the maximization of chemical inputs. The vicious cycle of chemical farming is now exposed in the increasing crop unsustainability, higher input requirement, poor soil quality as well as recurrent pest and disease infestation. [3].

In this work [2], the author has discussed the use of inorganic chemicals including all pesticides like fungicides, insecticides, and weedicides were used extensively to protect the plant from pests and diseases. The use of pesticides is that with intensive agriculture, the problems of insect pests and disease are taking multifaceted shape and posing serious challenges.

According to the survey conducted by World Health Organization (WHO)[4], "Our food has 40 times more toxic chemicals than permitted; this forces us to eat at least 0.27gms of deadly chemicals every day." With the rising concern of health issues, nutrition, quality of food, taste, price ratio it is necessary to evaluate consumer's intention to pay for the organic food product.

III. PROPOSED APPLICATION



Fig 1: Block diagram of the Application.

This application mainly helps farmers and consumers. As shown in Fig.1, Initially, the farmer has to download the application, and then they should submit their mobile (contact) number. Later one of the operators of this application will contact the farmers who have given their mobile (contact) numbers and collect the details about farmers. Details include farmer’s name, address in the initial stage. After getting all the required details from farmers, blogs (posts) are sent to the contact number provided by the farmers, these blogs in regional language and guide the farmers, how to grow organic crops traditionally. Through the guidance provided farmers can grow their crops organically.

After the cultivation of organic crops, the cost of organic crops, the quantity he has grown and the reasonable price they are willing to sell will be uploaded by the farmer through this application. The information given by the farmers will be made available to the vendors who act as both buyer and seller.

Vendors need to download the application and get certified through the operators of the application. They have to provide complete details to the operators and have to get certified. Once he gets certified, a portal will be available to view the farmer’s list and his production details through this application. Vendors can directly contact farmers to buy the crops by the farmers. Vendors sell the crops to the consumers through this platform.

This application stores the locations and the details of the vendors who have bought organic crops from the farmers. The consumers are major customers of this application. Consumers

have to provide basic details to the operators and then the customer can get the locations of the nearby vendor shops, can contact vendors and buy the organic products they need.

IV. CONCLUSION

The mobile application proposed provides awareness of organic farming to the farmers through blogs. They adopt organic farming to grow crops and sell those crops at the commending price. Through this application, vendors help farmers to sell their crops and provide information to the consumers about the availability of organic crops at nearby shops. Consumers will save their time in searching organic products, helps consumers to maintain their health and increase their life span.

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