

# A Review of Concern and Proceeds of Organic farming by organic producers

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## ABSTRACT

Agriculture produces was practiced without the use of chemical fertilizers and pesticides in ancient times. To increase agriculture productivity the harmful chemical fertilizer, pesticides used came during the mid-19th century. This kind of produces the rapid change in farming practices, It was causing harm to the environment. Organic farming can provide high-quality food without compromising the health of the land or the environment [38]. To develop this review article, 42 different articles were examined carefully about the concern and proceeds of organic farming by the producers during the published period from 2001 to 2019. The yield of organic produces and the price is a major concern in organic farming.

**Keywords:** *Constraints, Food security, Organic farming, Productivity, Pest management*

## 1. INTRODUCTION

Organic production is the only farming system that could solve multiple problems such as environmental protection, employment, income generation; food quality [29]. The organic crops contained significantly more vitamin C, iron, magnesium, and phosphorus and significantly fewer nitrates than conventional crops [37]. Organic farming leads to superior economic wellbeing and livelihood security of the farmer [35].

Organic agriculture's crop rotations and cover crops reduce soil erosion, pest problems, and pesticide use. Recycling livestock faces helps organic agriculture while reducing pollution. Biodiversity is increased by abundant biomass both above and below the ground (soil organic matter), which aids biological pest management and promotes insect pollination of crops. Traditional organic farming technologies could be used in conventional agriculture to make it more environmentally friendly and sustainable [14].

The priorities were poor participation in organic farming of the farmers, the farmers' consideration of the quantity rather than the quality and more inappropriate appearance of organic products, and Lack of necessity to produce organic products [1]. This article examined the concern and proceeds of organic farming by the producers.

## 2. METHODOLOGY

This article is developed by examining the concepts of 42 different research papers on the concern and proceeds of organic farming by the producers during the published period from 2001 to 2019.

## 3. ADVANTAGE OF ORGANIC FARMING

Organic farmers are, on average, more technically efficient than their conventional counterparts [17]. They are used good quality seeds [33] and save money on farm expenses by making their own organic fertilisers and using green manures by utilising family labourers and hiring labourers from their communities[10]. Families benefit from organic farming because it produces high-quality food[15].

### 3.1 EconomicsAspects

Major benefits derived from organic farming practices were improved productivity, increased level of income, reduced inputs cost, and better quality produces [27]. Its cost of cultivation is lower due to saving on chemical fertilizers, irrigation, seeds and agrochemicals [5][34][35]. So the producers are earned higher profit by lower input [31]. Organic farming is generally more profitable in terms of financial costs and returns than chemical farming, irrespective of the

crop or the size of the farm [31]. However, organic farming yielded better net returns per hectare than conventional farming [12].

Organic profits per hectare nearly double conventional earnings. Organic farming is 90 percent more profitable per hectare than conventional farming [17]. Farms can cut production costs and increase their economic sustainability by increasing their Technical Efficiency [17].

Organic farming, despite a 9.2% [42] to 14.6 % [12] reduction in crop productivity, provided farmers with a 21.5% [12] to 22.0% [42] higher net profit than conventional farming, this was mostly due to the availability of premium prices (20–40%) [12][42] for certified organic food and an 11.7 percent [42] to 15.9 percent [12] reduction in cultivation costs [12].

In addition, organic farming has been found superior in terms of economic wellbeing and livelihood security of the farmer [34]. The Benefit-Cost Ratio is also higher for organic crops which suggest that farmers can get higher profits by moving from conventional to organic crops [20].

### **3.2 Price Aspects**

The yield on organic produces lower but it is more than compensated by the price premium received [9][35]. The yield and profit stability observed [35][34][20][30]. On the other hand, organic farming was not found to be economically viable in circumstances where such premium pricing was not available and the cost of cultivation was higher due to purchased off-farm inputs [42].

### **3.3 Crop Commodity Aspects**

The entire average cost of cultivating inorganic paddy was 68 percent greater than that of organic paddy. Inorganic paddy yielded higher average yields than organic paddy. In both instances, medium farmers harvested the highest paddy yields, whereas large farms produced lesser yields. Organic paddy was found to be more expensive than inorganic paddy. The organic farm's net revenue and output-to-input ratio were higher. Recognizing that organic paddy cultivation was more economically viable and profitable [41]. The average total cost of cultivation of inorganic paddy was higher than from organic paddy [32][41].

Three latent factors affecting organic paddy cultivation including production, marketing, and management, the average returns of organic paddy cultivation were 27.93 percent higher than the average cost because the product price and average income were higher while the average cost was lower than that of a combination of organic and chemical paddy cultivation. The product price was statistically significant. majority of organic paddy cultivation costs were lower than those of a combination of organic and chemical paddy cultivation, with the exception of labor costs [36].

The crops of organic paddy, red gram and groundnut farming are earning a gross income more compared to conventional farmers [31]. Organic wheat cultivation is more profitable and that the significant reduction in its productivity level [30]. The amount of fossil energy used in organic crop cultivation was around 30% less than in conventional maize cultivation [14].

## **4. CONCERNS OF ORGANIC FARMING**

Obstacles faced by the producer: lack of organic fertilizers and organic farming inputs, followed by availability of fake organic products in the markets affect consumer confidence in organic products, yield reduction due to the lack of organic practices[2]. The risk at the level of family farm income is higher in organic farming [7] and the different landholding categories of organic farmers rank the issues differently [18]. Economic constraints in the order of severity were the initial low price for organic produce, initial yield loss, and inadequate subsidies for organic cultivation of crops[19].

### **4.1 Infrastructural Concerns**

In the order of severity were lack of training institutions, lack of indigenous certification agencies, and lack of specialized institutes for doing research on organic farming[18]. Low environmental awareness of farmers, unsuccessful agricultural reforms, lack of coordination among stakeholders, and institutional changes have been the main obstacles that needed to be resolved so as to increase organic farming in developing countries [16].

### **4.2 Financial Concerns**

Organic farms have significantly higher fertilizer, and crop protection product costs per hectare. Organic producers appear to have fewer bank financing options than conventional farmers [17]. Financial weaknesses [1], lack of financing sources[16], and inadequate availability of credit[19] affect organic production.

#### **4.3 Marketing Concerns**

Lack of market infrastructures [13][21][26] and the absence of a specific market of organic food [16] are the major concerns. Organizing organic products in one place again increases the cost of products. Furthermore, information about the organic food market is not readily available to farmers. The organic market is not very well known to most of the farmers in developing countries [26].

#### **4.4 Labour Concerns**

Organic farming is labour intensive [24][34][35]. Organic sample farms require more labour than traditional farms [17]. It causes a lack of labour and a high wage rate [12]. Although labour inputs in organic farming systems are on average 15% greater (varying from 7% to 75%), they are spread more uniformly throughout the year in organic farming systems than in conventional production systems. Because organic foods command higher market prices, the net economic return per hectare is frequently equal to or greater than that of conventionally grown crops [14].

#### **4.5 Land Concerns**

Farmers who use lease farms, to be concerned about organic farming's economic feasibility [6]. The major constraints faced by Small farm holders were economic and marketing including the initial low price for the organic produce, lack of specialised market, initial yield loss and high transportation cost [18].

#### **4.6 Economic Concerns**

Most of the organic farmers have identified high cost [1] [16][24] high prices was the foremost challenge faced by the marketers' high price of organic products has been lead by high logistics cost which was the second most problem [1]. 'High Production Cost,' which resulted in a low profit, or no profit [40]. Availability of the organic inputs are limited and it has been retailed high cost. This constraint leads to high production cost [26].

#### **4.7 Knowledge And Awareness Concerns**

Unaware about organic farming practices like biological pest control agents, mulching, and intercropping/mixed cropping [5]. Lack of knowledge about the hazards of pesticides and chemicals, and limited awareness about organic products were the major barriers [1].

Cultivator's knowledge of organic farming, particularly in regards to the use of chemical insecticides, herbicides, and fertilizers, has to be increased, that their attitude is still negative, and that they rely on conventional approaches (i.e. chemical) to control pests and diseases [39]. Lack of knowledge and lack of institutional support were other barriers to conversion [28]. These constraints need to be overcome by appropriate interventions [18].

#### **4.8 Productivity Concerns**

Organically managed crop yields on a per-ha basis can be comparable to conventional agriculture depending on the crop, soil, and weather conditions, though organic cash crops are unlikely to be grown as frequently over time due to the reliance on cultural practices to supply nutrients and control pests [14].

However, organic farms experienced yield increases because most of the farms were in the post-conversion period, while they were in the conversion period and experienced yield reduction [28]. Pest control [13][21][24][28] and low yield [1][15][16][26][28][41] also the major concern. The yields of organic farms are only 16 percent lower than those of conventional ones [17]. Including challenges and costs also barriers to conversion of organic farming. Lack of knowledge, lack of government supports, fear of the future, and production are mentioned as the most important challenges of the conversion to organic farming [4]. Some farmers were, however, interested in converting to organic farming in the near future due to the low cost of production, the price premium, and health benefits [28].

### **5. SWOT ANALYSIS**

An abundance of organic manure and water was the most important strength factor whereas comparatively lower productivity of organic crop, Significant promotion effort by govt and non-govt agencies and sustenance and enhancement of productivity in long run was the most important weakness, opportunity, and threat factor respectively [25].

## 6. SUGGESTION

Organic farming requires effective planning and implementation of various measures and also support from the Government and the Universities for the growth of organic farming as well as to attract more farmers to switch over to organic farming practices [18]. Extension services of the state should be strong and information on different aspects of organic farming should be provided to the farmers[18].

The organic farms with larger operations could become more profitable [17] and could raise their productivity by 20% on average if they effectively exploited existing resources and maintained present technologies [17]. Financial support to a farmer for producing organic crops, and organized and special training workshops on organic agriculture farming are needed [1].

Extension employees make earnest efforts to persuade farmers to use enhanced production technology in order to close the yield gap [41]. Increasing the amount of farmyard manure, neem cake, vermicompost, jeevamirtham, and panchakaviya would boost organic turmeric and cotton yields [12].

## 7. CONCLUSION

The government scheme for compensating yield loss during the conversion period and a price premium may help farmers adopt organic agriculture [28]. Scientists and policymakers are rethinking agricultural systems that rely heavily on biological inputs rather than chemical fertilizers and pesticides [38]. The yield reduction of organic farming poses a serious challenge in terms of food security for the nation [30]. Organic producers update their knowledge and should strictly manage and adhere to the organic farming practices as resulted will increase productivity.

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