Elucidating economic sustainability of organic vis-a-vis conventional vegetable production in North Western Himalayas

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Conventional farming has significant contribution to India's food production, but its limited effects have become apparent, leading to the need for an alternative agriculture method/technology, which can sustainably operate in a healthy ecosystem while maintaining and increasing quality and productivity. The present study was conducted to elucidate the economic viability of organic vis-a-vis conventional crop production and shows the picture to optimize the resource use efficiency for sustainable crop production in the North Western Himalayas region. The findings showed that organic products had higher output–input ratios for tomato (2.65) and potato (2.56). However, ineffective resource management in terms of over-utilization of organic potato seed and under-utilization of fertilizer, labour and plant protection for organic tomato caused lower productivity. Thus, the optimal level of resource allocation and their effective management are the two basic requirements to minimize costs, and consequently, maximize net income in organic crops.

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cultivation has generated higher revenues compared to conventional, despite having similar cultivation costs[2]. In countries like India, poor resource use efficiency is one of the major factors for low agricultural output[3–5]. In emerging economies, where resources are scarce and capital-intensive new technologies are restricted, the best way to boost productivity is to make better use of existing resources, as resource efficiency is a key element in productivity development[6,7]. The present study was therefore conducted to examine the causes of a shift towards organic cultivation and compare the input use pattern, economics and problems faced by the farmers for production and marketing.

Methodology

Mandi district of Himachal Pradesh under the Western Himalayan region was selected because of the diversity in cultivation of organic and conventional vegetable crops. Among ten blocks, two blocks, namely Dharampur and Gopalpur, were selected randomly depending on the extent of the area under vegetable cultivation. A list of organic and conventional vegetable growers was prepared with the help of officials of the Department of Agriculture and Horticulture and other agencies (secondary data). A sample of