

Don't Panic It's Organic: Promoting Organic Farming Technique

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Abstract:

Agriculture in developing countries is known to absorb excess labor force resulting in a decline in productivity. This declining agricultural productivity and soil quality due to excessive use of chemicals and fertilizers is raising concerns for the sustainability of the agriculture sector as a whole. Moreover, increasing fluctuations in the price of agricultural produce are also threatening the survival of farmers. Therefore, governments in many countries are advocating for more sustainable forms of farming techniques, like organic farming. However, the acceptability of these techniques is still limited, especially in developing countries. In this paper, we examine the possibility of encouraging farmers to produce organic crops through cooperative participation. We formulate a two-stage game between two identical farmers. In the first stage, farmers choose between the organic or conventional methods of farming and decide on the quantity of produce. And in the second stage, farmers choose whether they want to sell their produce via cooperative or in the traditional market. At the end of stage 2, the profits are realized. Our results show that the farmers are more likely to adopt organic techniques when they have a choice to participate in the cooperative. However, participation in cooperative is conditional on the price differential between organic and conventional crop as well as the price volatility of the same.

Keywords: Cooperative, Farmer's Decision, Operational Cost, Organic Farming, Price Volatility

JEL Codes: Q01, Q11, Q13, Q16