



Insurance for Contract Potato Farming in India

In 1995, to secure its supply of potatoes for potato chips, a major food company started a contract farming program in India and offers an extensive package of services. The company distributes fertilizer, provides access to pesticides, and requires contracted farmers to use their potato seed. It also offers farmers technical advice on production practices through a network of agronomists, extension workers and local facilitators.

Contracted farmers also have the opportunity to manage the many risks associated with growing potatoes with a weather index based insurance product, which is sold through ICICI Lombard and managed by Weather Risk Management Services (WRMS). The food company educated farmers about the insurance product in a systematic manner, conducting numerous trainings and meetings for the different actors involved in the programme.

Contract farming appears to be an effective way of involving Indian smallholders in a value chain. Farmers working with the food company produce 11–14 metric tons of potatoes per acre, compared with the average on-farm yield of 8–10 metric tons/acre. Farmers are offered price incentives: The food company sets a base buyback price at the beginning of the season and offers per kilo increments according to the quality of potatoes, the use of fertilizers and pesticides, and the purchase of index insurance.

In 2008, the company contracted with approximately 10,000 potato farmers across the country. The company planned to increase that number to approximately 15,000 by the end of 2009. The product is intended to protect against losses caused by late blight, a fungal disease linked to temperature and humidity, and the index incorporates both of these variables. The food company was motivated to add Weather Index Insurance to its contract farming package both to limit the risk of farmers and to limit the risk in its supply chain, as a larger effort to establish long-term relationships with farmers. Index Insurance was appealing to them because the national area-yield insurance was not considered to be sufficiently transparent and its record in India has been very poor.

WRMS designed the weather index-based insurance product to cover severe potato crop losses caused by the late blight disease, as minor losses could be avoided through better farming practices. Late blight disease can spread easily under certain conditions, especially: high moisture caused by rain, dew, irrigation or high humidity (greater than 85%); and moderate

temperatures (night temperatures of 10-15°C and day temperatures of 15- 21°C). Consequently, the insurance programme is based on a disease index, incorporating both humidity and temperature levels. Payouts for late blight disease are triggered if crops experience consecutive days of average relative humidity greater than 90% and average temperature between 10-20°C. In subsequent years, a frost index was also added to the insurance coverage, which triggers payout when temperature falls below 1-2°C.

Besides farming communities or cooperatives, the food industry -- including packing houses, processors, elevators, transporters and traders that depend on stable large-scale crop production -- can profit from weather index covers as a cost-efficient risk management solution. Agriculture banks and rural lending institutions are increasingly interested in protecting their outstanding loan portfolios with yield or weather index insurance covers. Similarly, agricultural input (e.g., seeds, chemicals) providers that sell their inputs to farmers against forward contracts are interested to cover their sales risk with index products.