CONTRACT FARMING AND FRITOLAY’S MODEL OF CONTRACT FARMING FOR POTATO

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Introduction

Farming is the age-old means of livelihood for millions of Indians. However, there have been few systems/models in which farmers are assured of a market for their produce, leave alone a remunerative price. Farmers have on occasion had to throw their produce away for want of buyers.

On the other side, agriculture based and food industries require timely and adequate inputs of good quality agriculture produce. This underlying paradox of the Indian agriculture scenario has given birth to the concept of Contract Farming, which promises to provide a proper linkage between the ‘farms and market’. Contract farming can indeed be a vehicle for the modernization of agriculture in India. It can be a means to bring about a market focus to Indian farming.

Contract farming

Contact farming is defined as a system for the production and supply of agricultural/horticultural produce under forward contracts between producers/suppliers and buyers. The essence of such an arrangement is the commitment of the producer/seller to provide an agriculture commodity of a certain type, at a time and price, and in the quantity required by a known and committed buyer. The basic elements of contract farming are pre-agreed price, quality, quantity and timely delivery of produce.

According to the contract, the farmer is required to plant the contractor’s crop on his land, and to harvest and deliver to the contractor quantum of produce, based upon anticipated yield and contracted acreage. This could be at pre-agreed price. Contractor supplies the farmers with selected inputs, including the required technical advice. Contract farming is one among several possible interfaces between crop cultivation and its processing and consumption. It is a powerful means of introduction of new crops or farm technologies, especially when both marketing and production uncertainties predominate.

Contract farming helps when markets do not exist or are underdeveloped; conversely, contracts diminish in importance with development of competitive markets. Contract farming works when specific quality requirements must be met. Contracts are effective when there is no zero-sum game (one party’s gain at the expense of the other). They are ideal for a win-win situation, since they represent a natural mutual dependency. Contracts succeed when they contain fair risk transfer or coverage measures and trust relationships built over long periods. They are most effective when they are critical to the continued operations of the buyer organization. They are deficient when their contribution to the buyer is minor. The effectiveness of contracts depends on the offer of a fair price and adequate risk coverage. Other factors helping adherence to contracts include exclusiveness, provision of proprietary planting materials or inputs, and a strong, self-regulatory social systems among growers. Contract farming is an exciting way of marrying small-farm efficiency to scale economies of processing and marketing.

Why Contract farming?

- To reduce the load on the central and state level procurement system.
- To increase private sector investment in agriculture.
- To bring about a market focus in terms of crop selection by Indian farmers.
- To generate a steady source of income at the individual farmer level.
- To promote processing and value addition.
- To generate gainful employment in rural communities, particularly for landless agricultural labour.
- To flatten as far as possible, any seasonality associated with such employment.
- To reduce migration from rural to urban areas.
- To promote rural self-reliance in general by pooling locally available resources and expertise to meet new challenges.
Launch of contract farming by PepsiCo

PepsiCo (formerly known as Pepsi Foods Ltd.) launched its agro business in India in 1989 with special focus on exports of value added processed foods by installing world class tomato processing plant in Hoshiarpur district of Punjab. PepsiCo follows the contract farming model where the grower plants the company’s crop on his land, and the company provides selected inputs like seeds/sapling, agricultural practices and regular supervision of the crops by its technical team.

Encouraged by the sweeping success of contract farming in tomato in several district of Punjab, PepsiCO has been successfully emulating the model of food grains (Basmati rice), spices (chilies) and oil seeds (ground nut) and vegetable crops like potato.

The company, which had been involved in the export of Basmati rice since 1990, was the first processor in India to invest and strengthen backward linkages for Basmati rice. Before venturing into contract farming of Basmati rice, PepsiCo went through intensive multi location field trials to evaluate several varieties for their suitability. Company’s scientists who ensure successful transfer of technology from the trials to the commercial field level, involved right from the stage of selecting varieties of Basmati rice, seed multiplication, and development of package of practices for farmers. At the time of harvest, company procures entire pre agreed quantum of the harvested produce at the farm gates at the pre agreed price. Procured raw material is transferred to its modern processing plant put up at Sonepat in Punjab for processing, packing and export. As part of its expansion plans, the company has been conducting several trials in Karnataka to evaluate hybrids/varieties of chilies, tomato, potato and maize.

With the partnership of Punjab government (Punjab Agriculture University and department of horticulture), PepsiCo/Tropicana is moving forward in the area of contract farming for citrus where Punjab government has facilitated creation of nursery infrastructure, bore cost of importing germplasm and provided land for demonstration plots at multiple locations. On the other hand PepsiCo/Tropicana has provided access to various varieties and knowledge base for various practices. PepsiCo leveraged services of international experts to share expertise from US nurseries and training people on grafting and planting. PepsiCo has also sent group of farmers from Punjab to visit Citrus groves in Florida. With this venture Punjab farmers will have world class source of planting material. They can choose from more than 50 varieties of citrus and 16 varieties of root stocks to cover a wide range of table as well as process cultivars. Venture is gearing up to deliver Punjab farmers 2 million saplings in 2007 and 4 million is the year 2008.

Contract farming of potato by FritoLay

FritoLay, a PepsiCo group company installed its first potato chips plant in Channo, district Sangrur, Punjab in 1987. Later two more plants were put up at Ranjangaon, Pune (MH) and Howrah in West Bengal. To run these plants, company requires more than 100,000 MT of processed grade potato per annum. Though India is a third largest producer (nearly 25 million tons per annum) after China and Russia, meeting process grade requirement of potato is still under question. Potato is freely available but the challenge is in getting year round supply of the processed quality. The major factor responsible for this gap is non availability of processing grade varieties. After release of K. Chipsona-1, K. Chipsona-2 and K. Chipsona-3 process grade varieties by Central Potato Research Institute, Shimla this gap is narrowing down. The other major limiting factor to meet the demand of process grade potato is seasonality. In India, about 90% of potatoes are grown in north western plains, Indo-Gangetic plains, central and north eastern regions during short winter days, and this accounts for the bulk of fresh harvested potatoes. However, potatoes grown in cooler north-western and west central plains are not suitable for processing because low temperatures at the time of crop maturity result in accumulation of low dry matter and high reducing sugars in the tuber.

To meet its requirement for processed potatoes, FritoLay operates contract farming in the states of Punjab, Maharashtra, Karnataka, Jharkhand and West Bengal. After years of multilocation trials, suitable varieties have been identified. In various states more than 14000 farmers are involved with contract farming of potato over an area of 12000 acres. Association with farmers is long term and more than 90% farmers are repeat farmers. Though the contract farming model varies slightly from state to state, basic model of operation is “Partners in Progress Model” (Fig. 1) where attempts are to provide a win-win market linked self sustaining opportunities. Under the “Partners in Progress Model”, FritoLay identifies cooperatives or locally evolved farmers organizations to be associated with directly. These cooperatives or farmers organizations identify suitable farmers who can produce quantity and quality as per requirement which is pre agreed. Company procures produce as per the price pre agreed. To drive quality and continuous supply, Pay for Performance system is in existence where farmers get incentives on high quality produce.
Fritolay provides advanced generation quality seed tubers to the farmer’s organization which is distributed to the farmers. Company provides direct support to the farmers in terms of extension services for chip grade farm practices through the qualified agronomists and scientists. Agronomists keep in touch with the farmers on day to day basis either via direct field visits or cell phones. Agronomists also keep record for the field practices adopted and stages of the crop. On harvesting quality parameters are checked up and grading, bagging and transport of the produce from farm gate is organized by the FritoLay. Finally farmers get quality based fixed buy back rate of his produce.

In terms of other supports to the farmers, FritoLay identifies input companies to make bulk supply of inputs on reduced rate and benefits are passed on directly to the farmers. Crop insurance and crop loans on reduced interest rate are also organized by the company through respective agencies.

Building blocks of contract farming model:

FritoLay’s contract model composed of three building blocks which are required for a sustainable contract farming program. These blocks are:

1. **Research and Developmental activities**
   - Evaluation of promising varieties
   - Based on multilocation trials, identifying varieties suitable to season and geography
   - Variety and location wise blueprint for complete package of practices developed after evaluating in local conditions
   - Evaluation of farmer economic model
   - Demonstration farming

2. **Technology transfer**
   - Selection and training of extension services team
   - Farmers education program by providing technical bulletins, organizing group meetings, and using audio visual aids
   - Conducting field trials at farmers fields: Crop timing and multilocational performance
3. Commercialization
   - Farmers selection, land preparation and planting
   - Continuous crop monitoring during growing period
   - Procurement, transportation and logistics
   - Prompt farmer payment system

Advantages of contract farming
1. Farmer gets best quality planting materials (seed tubers), crop monitoring technical advices free at his door step.
2. Farmer obtains an assured up front price and market outlet for his produce.
3. Focus shifts from price to returns per unit area/season as it is driven by productivity increase and short duration varieties.
4. The company gets requisite quality material regularly at predetermined prices.
5. Promotes long term planning and investments.

The problems that beset contract farming are
1. Small size of farmer land holding: Difficult to handle large number of farmers.
2. No mechanism to discourage default farmers. There is no legal recourse when faced with large scale contravention of contracts.
3. Inadequate comprehensive crop insurance scheme to protect against natural calamities.

Following initiatives from the Government towards implementation of contract farming shall be of mutual advantage to both industry and growers:
1. A judicial system for enforcement of contracts to be involved at the panchayat and district administration level for arbitration and speedy redress of disputes. The contract between company and grower should be binding and enforceable by both parties. The farmers should not supply the seeds and/or produce to any other company or individual.
2. An effective crop insurance system should be formulate to provide short-term crop loans to growers for seed and other inputs.
3. Assistance in promoting extension education by companies. An effective mechanism can be worked out to leverage Government’s extension infrastructure by companies.