# CHAPTER 4
# CONTRACT FARMING OPERATIONS IN PUNJAB

This chapter examines the operations of contract farming for three companies, one MNC and other two being domestic firms. The chapter has thoroughly examined the interface between the companies and the farmers in terms of procurement operations, mode of payments, selection of farmers and different grades, technical guidance provided by the companies, etc.

## 4.1 PepsiCo: A Profile

### 4.1.1 Brief history of PepsiCo and its operations in India

PepsiCo, Inc. was established in 1965 with the merger of Pepsi-Cola and Frito-Lay. Pepsi-Cola was created in late 1890s by Caleb Bradham, while Frito-Lay came into existence in 1961 with the merger of the Frito Company (founded by Elmer Doolin in 1932) and the H.W. Lay Company (founded by Herman W. Lay in 1932). The company operates through six segments: Frito-Lay North America (FLNA), Quaker Foods North America (QFNA), Latin America Foods (LAF), which includes its food and snack businesses in Latin America; PepsiCo America's Beverages (PAB), including its North American and Latin American beverage businesses; PepsiCo Europe (Europe), which includes beverage, food and snack businesses in Europe and South Africa; while PepsiCo Asia, Middle East and Africa (AMEA) includes beverage, food and snack businesses in AMEA, excluding South Africa. The company manufactures, markets, distributes and sells a variety of beverages, foods and snacks through its contract manufacturers and other third parties. The company serves customers and consumers in more than 200 countries and territories.

PepsiCo entered India in 1989 as a joint venture of Punjab Agro-Industries Corporation and Voltas, an Indian corporate. For processing of F&Vs, it started first plant at Zahura village in Hoshiarpur district of Punjab where it procured and processed tomatoes. In 2000, the company introduced chilli cultivation in state as chilli sauce is considered as complimentary to ketchup and within a short period of two decades, it has grown into one of the largest MNCs of food and beverage in the country. Its growth in India has been guided by "Performance with Purpose", to provide optimum financial performance, while creating sustainable growth. After achieving the success in contract farming of tomato, it has successfully followed the model in other crops like food-grains (Basmati rice), spices (chilies), oil seeds (groundnut) and vegetables (potato). PepsiCo had 4 unit plants in India, one each in Punjab (Sangrur), Maharashtra (Pune), Haryana (Gurgaon) and Gujarat (Bharuch), with each having about 400 tonnes processing capacity of potato per day. PepsiCo had 33 acre land in Jalandhar district, where multiplication of seed was done through tissue culture. PepsiCo had built an expansive beverage and snack food business supported by 37 beverage bottling plants and 3 food plants. The extensive portfolio of the company included iconic brands such as Pepsi, Lay's, Kurkure, Tropicana 100 per cent, Gatorade, Quaker and fast growing brands like Nimbooz and Aliva.

### 4.1.2 Contract farming operations

In 1989, PepsiCo started to procure the produce from any farmer growing tomatoes in the state on the basis of quality. In 1995-96, it procured tomatoes through forward contract. It started practicing actual contract farming in Punjab in 2001-02. The company started expanding its contract farming business to other states of India since 2005-06. PepsiCo was the first corporate to introduce collaborative farming of process-grade potatoes in India in 2004-05. It also started contract farming for basmati rice through DSR (Direct Seeding of Rice) in 2006 which continued till 2013. At present, the company is doing contract farming in potato for chips and seeds. The seed varieties included Atlantic, Chipsona-3, FL-1533, FC-3 and FC-5. FC-3 and FC-5 are the patent varieties of the PepsiCo.

PepsiCo had also initiated the contract farming in Quaker oats on trail basis at 500 acres land of Madhya Pradesh and Rajasthan in India. The company had established a model of partnership with the farmers and practices the contract farming with 24,000 farmers across nine states in Punjab, Haryana, Uttar Pradesh, West Bengal, Madhya Pradesh, Maharashtra, Gujarat, Chhattisgarh and Odisha. In Andhra Pradesh and Tamil Nadu, the company trained the farmers in rainwater harvesting for irrigation and provided value added support for efficient water usage and income generation, but it had not started the contract farming yet. In Punjab, PepsiCo had practiced contract farming with 400 farmers at Ludhiana, Moga, Jalandhar, Fatehgarh Sahib, Patiala, Sangrur, Barnala, Kapurthala, Amritsar, S.B.S Nagar and Hoshiarpur districts. In India, the company had about 20,000 acres of land under contract farming, out of which about 2500 acres were only in Punjab. Approximately, 45 official employees worked in the company in various managerial positions to regulate the operations of the contract farming in India. The company also had about 250 field agronomists in India including 40 in Punjab, who provided the various extension related guidance and training to the contract farmers.

There was a legal contract between the firm and the farmers (Appendix D). The agreement was in English, which had the information pertaining to acres, price, delivery of produce, incentives to be paid by the company, supply of planting material, etc. for the contracted crop duly signed by both the parties. The company issued an ID number to each contract farmer, through which the transaction of inputs and produce took place between the farmers and the company. The company selected the farmers on the basis of their willingness to work under contract, availability of at least 10 acres land for contract, suitability of land, availability of assured irrigation facilities, financial position of the farmers; and commitment and trustworthiness.

### 4.1.3 Agronomical guidance

The company appointed a field agronomist with a minimum qualification of senior secondary education by giving proper training. The appointed field agronomist visited the farm with the gap of 2 days and guided the farmers about agricultural practices in terms of techniques to be used for seed treatment (Photo 4.1), sowing and harvesting, type and brand of fertilizers and pesticides to be used, when and in what proportion to be used (Appendix E). He also discusses about various farm level problems and gives remedial solutions. The field agronomist maintained a register in which all details regarding acreage, sowing date, quantity of fertilizer, pesticide and fungicide applied and number of irrigations along with time of application of various inputs on contract crop for each and every farmer were recorded. Besides, the company published and distributed literature in Punjabi language about the incidence of the diseases and spray schedule for potato cultivation to be followed. The company also recommended a schedule of pesticide sprays for each area; and the type and brand of pesticide to be used each time was also disseminated through agronomist and pamphlets.

### 4.1.4 Inputs and incentives

The company supplied the quality potato seeds to the farmers. The company delivered the seeds at farmers' farm at 60 per cent of the payment in cash, while another 40 per cent was deducted from the produce. For sowing seed potato on 5 acres land, 150 bags (50 kg each) of seed were required. PepsiCo provided seed of different grades to each farmer. Approximately, 1-2 bags of Z grade; 5-10 bags of D grade; 30-40 bags of A grade; 80-90 bags of B grade and 10-15 bags of C grade were provided for 5 acres of land. The company also provided the chemical kit at ₹ 3220 at distributor price through Bayer (Figure 4.1). The company claimed that chemical kit costs about ₹ 4,000 to farmer if purchased from the market. There was no compulsion to buy chemical kit through Bayer. The farmer could also purchase the same from the market. The payment to Bayer had to be done through demand draft by the farmers directly. The company gave a bonus of ₹ 30/quintal to each farmer if kit was purchased from Bayer. The company had given bonus to the farmers so that there was no delay in spray schedule in order to avoid disease attack and enhance the yield level. The company had also given yield based incentive on the basis of A and B grade production. If a farmer produced 70 per cent A and B grade produce, he was given an incentive of ₹ 35/quintal. Similarly, on 75 per cent A and B grade produce, an incentive of ₹ 40/quintal was given, while on producing 80 per cent A and B grade produce, ₹ 50/quintal was given as incentive. The incentive was given to encourage farmers to increase yield level of the potato. The company was also used to give a chairperson award as an incentive for involvement of the farmers in contract for longer period. The contract farmers with permanent shed facility were given a bonus of ₹ 50/quintal Thus, in total along with fixed price for seed potato, it provided a bonus of ₹ 1.1/ kg which included bonus ₹ 0.30 for chemical kit, ₹ 0.20 for grading, ₹ 0.10 for insurance and ₹ 0.50 for permanent shed facility.

### 4.1.5 Procurement

At the time of harvesting, the company procured directly from the farmers at the farm gate itself at the pre-agreed price. The transportation facility for the produce was also arranged by the company of its own. The company also provided gunny bags free of cost to pack the potatoes. It procured from the farmers through individual, written and registered contract. On the basis of quantity for storage, PepsiCo hired the cold stores every year. In 2015-16, it hired three cold stores- Amar ICE and Cold Store in Nabha, D.K. Cold Store in Jagraon and Satgur Cold Store in Nakodar. The company was also involved in the contract farming of the chip grade potato in other states such as Madhya Pradesh, Gujarat, Uttar Pradesh and West Bengal.

### 4.1.6 Quality specifications and rejections

The grading was done by the company workers with the grader at the farm only (Photo 4.2). The grading with grader was done on the basis of size. Z grade seed potato had a size between 10 mm to less than 28 mm, A grade lied between 28 mm to 35 mm, B grade between 36 mm to 45 mm, C grade between 46 mm to 55 mm, while D grade had size 56 mm and above. The rotten and cross-cut potatoes were removed from the produce manually. The company procured all grades of seed potato produce on the basis of different grade price. In 2015-16, A and B grade produce was procured at ₹ 10/ kg; C grade at ₹ 8/Kg and D and Z grade was procured at ₹ 4.50/kg (Table 4.1). After dehaulming of potato plants, the company conducts 3 strip tests from an area of 5 acres regarding the yield level. Another test to check any virus attack on crop was also done by taking sample from the field; the company grows it again on its own land. After growing for 40-50 days, the company reveals the results about the productivity of the crop. The company claims that about 99 per cent of the farmers comply this test. On passing the test, the each farmer gets a bonus of ₹ 50/quintal. Further, PepsiCo did not allow farmers to sell the produce in open market.

Photo 4.1
*Seed Treatment of Potato at Farmers' Field*

Photo 4.2
*Grading of Potato by PepsiCo Worker at the Farmers' Field*

The company also procured the chip grade potato from the non-contract farmers in Punjab, after testing the sample regarding quality of the produce. The company selected the produce on the basis of size of the potato. Besides, it should not be rotten and should be without any cross cuts. Test for sugar content was undertaken by frying a small sample from a lot. Potatoes with high starch content will turn red on frying. Sample tests were also undertaken for solid content. The lots were rejected or accepted depending on these sample results. From non-contract farmers, potatoes were procured on the basis of Delhi vegetable market prices.

### 4.1.7 Mode of payment

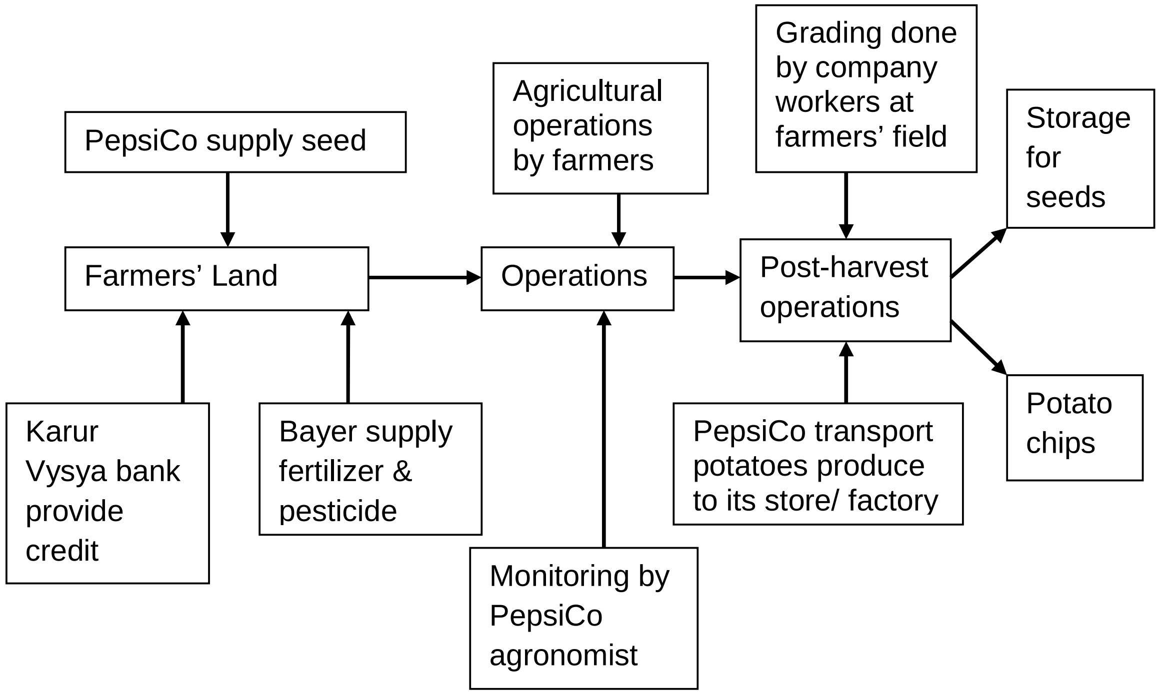
The payment of produce was made through bank within 10 days after the delivery of last produce by deducting 40 per cent seed price from the produce. The firm had a tie up with Karur Vysya Bank, which had its branches in Patiala, Mandi Gobindgarh and Fatehgarh Sahib. The contract farmers had accounts in these branches. Karur Vysya Bank also provided a loan facility of ₹ 25,000 per acre subjected to a maximum amount of ₹ 2,50,000 without any interest (Figure 4.1). The bank recovered its loan through produce of the crop.

### 4.1.8 Environmental sustainability

PepsiCo India claims that it is leading a pioneering initiative to replace transplanting of paddy with direct seeding technology, which helps to reduce water consumption in paddy cultivation by 30 per cent and also cut down greenhouse gas emissions by 75 per cent. Besides, the technique helps to reduce labour costs thereby significantly reducing cost of cultivation. PepsiCo also helps farmers in water-scarce areas in Maharashtra, Gujarat, Karnataka and Haryana by promoting drip irrigation in over 3000 acres. PepsiCo initiates in helping the farmers in terms of raising money for the assets through banks, encouraging farmers for the adoption of drip irrigation through a buy-back mechanism and providing help to design agricultural equipment to make drip irrigation commercially viable for farmers. PepsiCo India has also launched a Waste to Wealth program with an NGO, Exnora Green Pammal to demonstrate an economically viable, environmentally feasible and socially acceptable model for urban solid waste management.

Figure 4.1

*Value Chain of Potato*



## 4.2 Rana Sugars Limited: A Profile

### 4.2.1 History of Rana Sugars Limited

Rana group of companies made its beginning with a Kraft paper unit in Punjab in mid 80's. Rana Sugars Limited (RSL), based in Chandigarh is a public limited company listed on the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). It has been promoted by Rana Gurjeet Singh and Rana Ranjit Singh. It was founded in 1992 as joint venture with Punjab Agro Corporation Ltd. Rana Group diversified into sugar manufacturing by setting up its first unit at Buttar Sevian in Amritsar district of Punjab in 1993. It is an integrated sugar manufacturing company with interest in sugar, power and alcohol. It is one of the largest producers of sugar in northern India with manufacturing facilities in the states of Punjab and Uttar Pradesh. In 2002, the company has setup a Demonstration Co-generation Project to produce extra power from the Bagasse (by-product of sugar) and supplied it to Punjab State Electricity Board. RSL established a distillery unit in 2006 with a production capacity of 60 KLPD. The unit manufactures various grades of alcohol such as Rectified Spirit (RS) and potable grade Extra Neutral Alcohol (ENA). The alcohol is produced from both molasses and grain. Molasses is a by-product of sugarcane that has a certain amount of sugar content, which is extracted through a technological process. RSL also has a pilot scale sugarbeet processing plant, where about 10 per cent of sugarbeet juice is mixed with sugarcane juice without any modification in the sugarcane based plant. The company has a processing capacity of about 5000 tonnes/day for sugarbeet, which is considered equivalent to 6500 tonnes/day for sugarcane. Approximately, 350 persons are employed as regular staff and 350 are casual workers in the company.

### 4.2.2 Contract farming

RSL started crushing of sugarcane in 1993. As being the joint venture with Punjab Agro Corporation, the area reserved for the firm for sugarcane crop was 5 districts of Punjab i.e. Amritsar, Jalandhar, Kapurthala, Gurdaspur and Tarn Taran. In 2015-16, the area under sugarcane crop was 30,000 acres and 6000 farmers were indulged with the firm for the crop. RSL procured different varieties of sugarcane like- COJ85, CO238, CO118 and COJ88. In 2012, the company started the contract farming for sugarbeet with approximately 1500 farmers. The area under the crop was about 3000 acres. The company promoted the crop by distributing the pamphlets and through the newspapers. In 2015-16, the area under sugarbeet increased to 9000 acres and the number of farmers involved in sugarbeet contract increased to 3000. The company practiced sugarbeet contract farming with the farmers of Amritsar, Jalandhar, Kapurthala, Gurdaspur, Faridkot and Tarn Taran districts. RSL promoted different varieties such as Californ, SZ-35, PAC 60008, SERENAD and Ernestin based on their suitability to the land. RSL also had a command area of about 200-250 acres in Amritsar district, where the sugarbeet and sugarcane crops were grown. The company also initiated trails in sweet sorghum crop, recently.

### 4.2.3 Contract agreement

The farmers were contacted well before the transplanting season of the crop and the area to be cultivated by each farmer is agreed upon. The contract agreement was on procurement and input contract basis under which the firm not only agreed to procure the contracted acreages at the fixed time and price, but also provided inputs like seeds on credit, technical advice and sugarbeet harvester at free of cost on returnable basis. The contract was written in Punjabi language. The copy of the contract was given to farmer on request. The contract agreement contained signatures of both the parties involved in the contract along with two eye witnesses.

The contract agreement had various conditions that both parties had to follow. The firm provided seeds on credit. About 75 per cent cost of the pesticides had to be borne by the farmer and remaining 25 per cent by the firm. Moreover, it was also specified that the firm will do the harvesting with its own machine. The farmer was not allowed to irrigate land one week before crop harvesting. If any of the party violated the contract then there was penalty on both the parties. In case, firm failed to procure crop of the farmers, the firm had to pay the amount equal to the prevailing MSP of wheat for a yield of 20 quintal/acre (Appendix F). On the other hand, if farmer did not sell 85 per cent of its produce to the firm, then he had to pay penalty equivalent to 10 per cent of the value of the crop. The company preferred that the farmer would sow sugarbeet on atleast 3 acres of land, but in practice, they had large number of contract farmers growing crop only on one acre.

### 4.2.4 Agronomical guidance

The company had appointed about 100 graduates as surveyors in selected villages. While appointing surveyors, the graduate with B.Sc. (Agriculture) was given preference. The company also provided fuel and mobile facility along with salary to the surveyors for easy communication with the farmers and higher authorities for timely assistance and feedback. The surveyors visited the farm once in a week and guided each farmer about agricultural practices in terms of techniques to be used for sowing and harvesting, kind of fertilizers and pesticides to be used, when and in what proportion to be used besides discussing various farm level problems and giving remedial solutions. The surveyor maintained a register in which all details regarding acreage, variety, sowing date, quantity of fertilizer, pesticide applied and number of irrigation along with time of application on contract crop for each and every farm was noted. The company also provided one information note along with one official page to the farmer, in which every detail of the sugarbeet crop like sowing date, application of pesticide and insecticide, irrigation, etc. was written by the surveyor and that note remained with the farmer (Appendix G). The company also arranged camps for the farmers, where they were provided information regarding the quantity and schedule of pesticide and insecticide to be used on the crop. The first hand information was also given related to diseases on sugarbeet.

### 4.2.5 Seeds and other inputs

RSL supplied quality sugarbeet seeds to the contract farmers because these seeds were not available in the open market. Therefore, the company imported the seeds from SES Vanderhave- a Belgium based company and supplied to the farmers at 75 per cent subsidized rate. The payment for the seed was deducted by the company while making payments to the farmers for the final produce. The company also provided the insecticide and pesticide at 25 per cent subsidized rate to the contract farmers. Further, the company also provided the facility of sugarbeet harvester.

### 4.2.6 Opening bank account

The farmers had to open saving accounts in either State Bank of Patiala, State Bank of India, IDBI Bank or UCO bank (Table 4.1). The company did all the necessary work to open the farmers' bank account. The company also provided loan facility of ₹ 20,000/ acre to farmers for sowing sugarbeet with a maximum amount of loan ₹ 1,00,000. The payment of the produce was made either through cash or bank account within one month. In 2014-15 crop season, the payments were delayed for 3 months due to fall in sugar prices.

### 4.2.7 Procurement and processing

RSL procured the entire produce of sugarbeet from the farmers without any grading as there was no another market for the crop in the state. Also, the varieties of the sugarbeet under contract were only grown by the contract farmers. There was non-availability of seed in the open market. So, there was a bonded form of contract between both the parties, the firm and the farmers as both had to depend upon each other for the sugarbeet crop. The company gave a slip to the farmers for bringing the produce at the company gate on the basis of sowing date and the processing capacity of the company. After harvesting the crop, the farmers had to immediately transport the produce within 24 hours to the company, otherwise its quality deteriorates. The farmers who were supplying over a distance of 20 km, the company provided ₹ 10 more than the fixed price for produce as transport charges, while for those who bring it from more than 100 km, the company arranged truck facility and transport cost was equally borne by both the parties (Photo 4.3). The sugar is extracted by diffusion process from beet. The beet roots are washed and cut into thin slices (Photo 4.4). After that slices are dipped into hot water that infuse the sugar out and forms syrup. The syrup is then filtered and boiled again. Finally, it is dried to sugar (Figure 4.2). The sugar produced in the company was mainly sold in Punjab, Jammu & Kashmir and Rajasthan markets. The company also faced some problems in sugarcane crop as its prices were fixed by the government on quantity rather than on the quality basis. Thus, the farmers with poor quality produce had also to be given the same price. Due to this, the company was not able to make timely payments to sugarbeet growers and many farmers left the contract with the company. Since there did not exist the proper weedicides for the new varieties of the sugarbeet, there was high incidence of weeding resulting in high manual labour costs on weeding.

Figure 4.2
*Flow Chart of Sugarbeet Processing at Rana Sugars Limited*

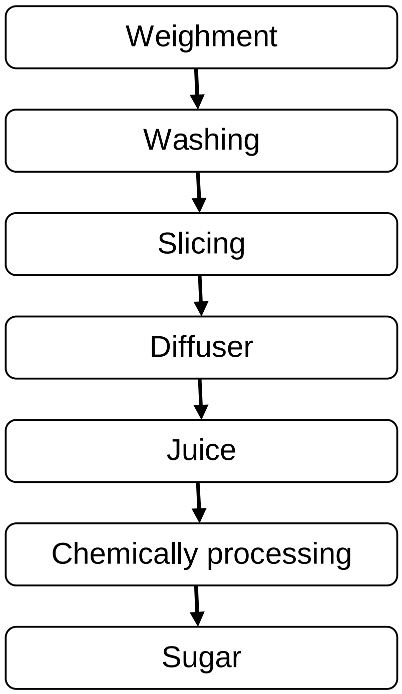


Photo 4.3

*Loading of Sugarbeet in Truck by Hired Labour of Farmer at Farm*

Photo 4.4

*Processing Plant of Sugarbeet at Rana Sugars Limited*

## 4.3 Paras Spices Pvt. Ltd.: A Profile

### 4.3.1 History of Paras Spices Pvt. Ltd.

The company was initiated as Paras Enterprises in 1982 to cater the need of high quality spices in India. Initially, it supplied to Nestle. Paras Spices began its journey from being a local supplier of spices to a supplier of international quality savory ingredients. Paras Spices started its operations in 1985. It has two production sites, one at village Khosa Pando in Moga district and other at Pantnagar, Uttarakhand. It is globally recognized manufacturer of spices and blending and seasoning of spices and for dehydrated vegetables and herbs like onion, garlic, oregano, parsley, etc. Paras Spices is also involved in the processing and roasting of chicory and its large part is exported mainly to Africa. Over the years, Paras Spices Pvt. Ltd. had also grown from being just a commodity vendor to an associate partner of many major global consumer brands across 15 countries. It is now a bona-fide producer of premium food ingredients. The company has the facility of all the critical quality parameters like estimation of 'RS' (Reducing Sugar) and Total Extractable Matter. In 2011, Paras group opened new unit for cattle feed in Khosa Pando village of Moga, named as Paras Nutritions Private Limited. Paras Spices Pvt. Ltd. had permanent staff strength of 101 and employed about 300 casual workers. It had fully mechanized processing plant with approximately 12,000 tonnes annual capacity and a covered area of 1.30 lakh sq. ft. The company had wide range of retail products under the brand name, 'KLS gold spices' such as *anardana* powder, black pepper powder, *chana masala*, *chat masala*, ginger powder, turmeric powder, *kasoori methi*, butter milk *masala, meat masala,* mint *chutney, raita masala,* red chilli powder, *sambar masala, tea masala*, etc. Paras Spices Pvt. Ltd. has also associations across industries i.e. culinary industry, coffee chains, snacks industry, quick service restaurant, premium hotel groups, restaurant chains, catering service and modern retail chains. Paras Spices Pvt. Ltd. sold its processed chicory to Nestle, besides exporting it to other countries. It also provided spices and ingredients to the food companies such as PepsiCo, Nestle, Britannia, Dunkin Donuts, Coca-cola, Haldiram's, McCain, etc.

### 4.3.2 Contract farming

Paras Spices Pvt. Ltd. had partnered with farmers to start the plantation of spices. The company worked on 700 acres of area by providing inputs and technical support to the farmers. Paras Spices Pvt. Ltd. is pioneer in introducing chicory cultivation in Punjab. For the objective of sustainable sourcing chicory throughout the year, it was extensively engaged in backward integration of chicory by working in tandem with the vast network of local farmers all over Punjab. The company had contract in ORCHIES variety of chicory in Punjab.

Chicory was processed in the company's state-of-the-art plant in the form of roasted and unroasted cubes and exported to other countries due to its compliance to international quality standards. Paras Spices Pvt. Ltd. initially started the contract farming of chicory with 15-20 farmers in 2006-07. Now, it practices contract farming with 150-200 farmers in Punjab on about 450 acres of land. Paras Spices Pvt. Ltd. mainly preferred the farmers from surrounding area of 40-50 kms of the company. The catchment districts of the company were Moga, Ludhiana, Ferozpur and Faridkot. The company had condition that farmers could not grow the same contract crop with any another company. As in such situation, the chances of contract violation increased because the farmers could sell their produce to the other company. The company chooses the farmers on the basis of soil quality, availability of irrigation and transport (tractor-trolley) facility. However, the company also faced the problem of some procurement issues. Firstly, the contract farmers while harvesting the produce did not make efforts to remove the mud which leads to the problem of contamination and hence, increase the weight of yield. Secondly, sometimes farmers did not bring their produce according to pre-agreed date mentioned on the slip. As a result, quantity of arrived produce increases more than the processing capacity of the firm during peak season. Thus, the farmers had to wait for their turn for longer time and sometimes, the quality of produce also deteriorated. The company had also started trails in cumin and chilli crop.

### 4.3.3 Agronomical guidance

The company had appointed an 'Area Manager', who visited the farm once in two weeks and guided the farmers regarding irrigation and varieties, timings and quantity of pesticides to be applied. The Area Manager maintained a register in which all details with respect to sowing dates, acreage and quantity of various inputs applied on chicory crop for each and every farmer was noted along with farmers' signature. One Area Manager guided approximately 30 farmers.

### 4.3.4 Inputs and incentives

The company sourced chicory seeds from Europe and after acclimatizing them in-house, these were provided to the farmers along with technical aid backed by inputs gathered from PAU, Ludhiana. The company also assisted farmers in getting easier financial help. The company sows the seeds at the farmers' field with its own sowing machine.  Even at the harvesting time, the company dug the crop with digger. The company charged ₹ 1700/acre from the farmer for provision of seeds, sowing and digging machine on returnable basis. The company deducted this input cost from the final produce.

### 4.3.5 Payment

The company announced the price in writing at the start of the season. The price of the chicory crop was fixed on the basis of prices in the international market. The company pays within one week after procuring the produce through cheque after deducting the input costs. The payment was generally done on Wednesday. During 2015-16, the price announced for chicory was ₹ 340/quintal (Table 4.1).

### 4.3.6 Procurement and processing

Paras Spices Pvt. Ltd. procured the whole produce from the farmers as there was no other market of the crop in the state. Firstly, the company machine dug the crop and then labour of the farmer collected the chicory roots from the field. After cutting the leaves from the chicory root, it was loaded into the trolley. Farmers themselves had to bring the produce to the firm in trolleys. All the produce was procured, nothing was rejected. But, there was a condition that farmer had to bring the produce within 24 hours of harvesting and without mud along with produce. Because after 24 hours, the chicory starts shrinking and its quality level degrades. Thereafter, it becomes difficult to cut it into cubes (Figure 4.3). The company had a processing capacity of 50-60 trolleys/day with each trolley weighing around 50 quintals. The slips were given to the farmers for bringing their produce at the firm on the basis of sowing date to avoid the oversupply on a given day.

Figure 4.3
*Flow Chart of Chicory Processing at Paras Spices Pvt. Ltd.*

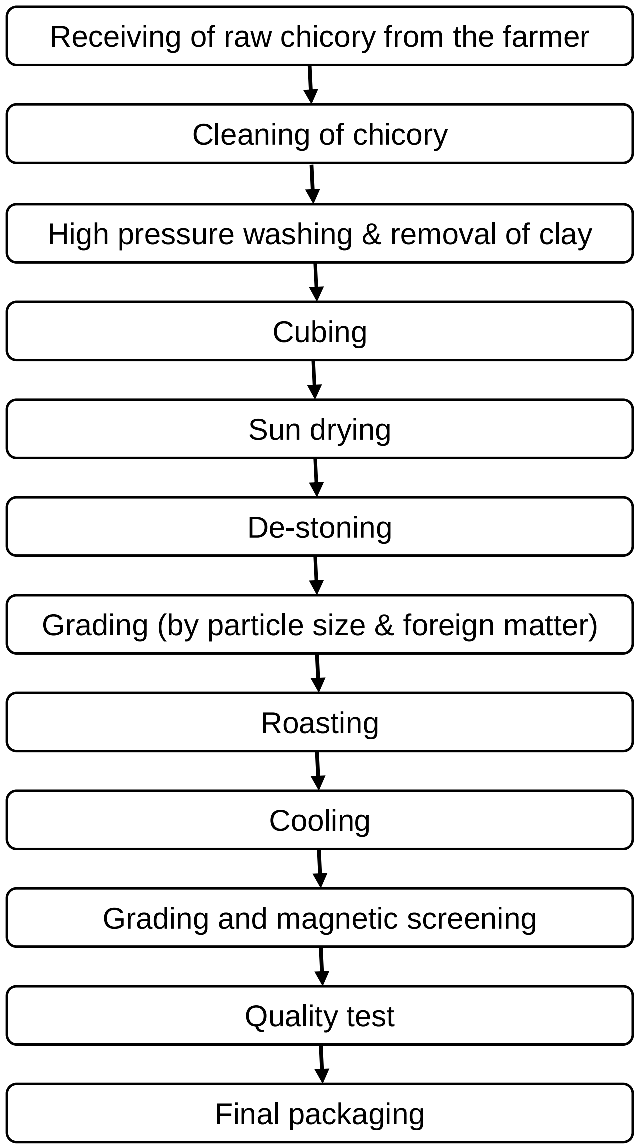


Table 4.1
*Key Features of Contract Farming Companies Studied*

| Particulars | PepsiCo | Rana Sugars Limited | Paras Spices Pvt. Ltd. |
|---|---|---|---|
| Year of Establishment in state | 1989 | 1993 | 1985 |
| Type of contract | Written | Written | Written |
| Language of contract | English | Punjabi | English |
| Criteria for choosing area | Sandy loam soil with pH value 7.5 | All over Punjab, but more preference to nearby areas | 40-50 km surrounding area of the firm & sandy loam soil |
| Criteria for choosing farmer | At least 5 acre land for potato crop; resource endowment (farm machinery, assured irrigation facility) | Assured irrigation facility | Assured irrigation facility |
| Preference for farmer | 5 to 10 acres | All | All |
| Input supply | Seeds and Chemical kit from Bayer | Seeds | Seeds |
| Price | A & B- ₹ 10/ kg<br>C- ₹ 8/ kg<br>D & Z- ₹ 4.50/ kg | ₹ 170/ quintal | ₹ 340/quintal |
| Mode of payment | Account payment | Cash and account payment | From 2013 onwards cheque, earlier cash payment |
| Time of payment | Within 10 days after the day of last delivery of produce | Within a month | Within a week |
| Price fixation | Pre-determined | Pre-determined | Pre-determined |
| Technical guidance | Free of cost | Free of cost | Free of cost |
| Compensation in the event of crop failure | Crop insurance from Skymet for natural calamity | Till now, no crop failure took place | In 2012, due to heavy rain all crop destroyed but company paid to the farmers |
| Advanced payment | ₹ 25000/ acre loan from Karur Vysya bank | ₹ 20000/acre loan from IDBI bank | Only to known farmers, company provide credit for inputs |

*Source:* Field Survey