



## **Supply Chain Management of Fruits and Vegetables - A Case Study of Namdhari's Fresh**

**Sudarshan Naidu N T  
Fellow Program Student , IRMA**

- India is witnessing rapid changes in retailing of fruits and vegetables (Kumar, 2004; Rajadhyaksha, 2006; Anonymous, 2006; Sinha, 2007)
- Domestic market for both traditional and exotic fruits and vegetables is increasing
- Indians spend more than fifty percent of income on food items - more on fruits and vegetables
- spending on fruits and vegetables has increased from 15 to 25 % between 1993-94 and 2003-04 (Rajadhyaksha, 2006)

- Availability of fresh and quality fruits and vegetables is problem
- Huge opportunity
- Face specific challenges of agri
- Second largest producer but cannot easily procure and supply
- Supply chain suffers from maximum inefficiency (Ahya, 2006)
- More investment in front end
- Namdhari's Fresh has overcome

### **Namdhari's Fresh**

- Started in 2000, Bidadi near Bangalore
- Unit of Namdhari seeds
- Diversified into production, retail and export
- Turnover- Rs.60 crore in 2006-07
  
- **Supply to three segments**
  - Retail
  - Institution
  - Export
- 14 retail stores in Bangalore

## Production

- More than 1800 ha in different agro-climatic zones
- Majority of the produce from own production
- Network with more than 2000 farmers under contract farming
- EUREP-GAP standards are followed
- Plan production based on demand from 3 segments
- Demand from export segment 3-4 months in advance
- In rare cases, from open market
- harvest and transport daily based on demand
- Test, weigh and transport in refrigerated vehicles to pack house

## Packing

- Check quality, weigh and store in pre-cool chambers
- Distribute to all segments
- Sorting, grading and packing in pack house (20<sup>0</sup> C) on tables
- Proper dress code
- Grading based on size, appearance, firmness, colour, tenderness, damage etc.
- For export segment specifications are provided by customers
- Packed into SKU's and bar coded

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## **Indenting and supplying**

### **a. Retail**

- Weekly orders from retail shops indicating daily requirements
  - In case of any change, convey by mail or phone
  - Packed produce is placed in crates and stored in cold chambers
  - Store wise crates (names printed) for easy identification, packing and transportation
  - Transported to stored before 6 AM by refrigerated vehicles
  - Unsold stock information is conveyed to adjust to next day's supply
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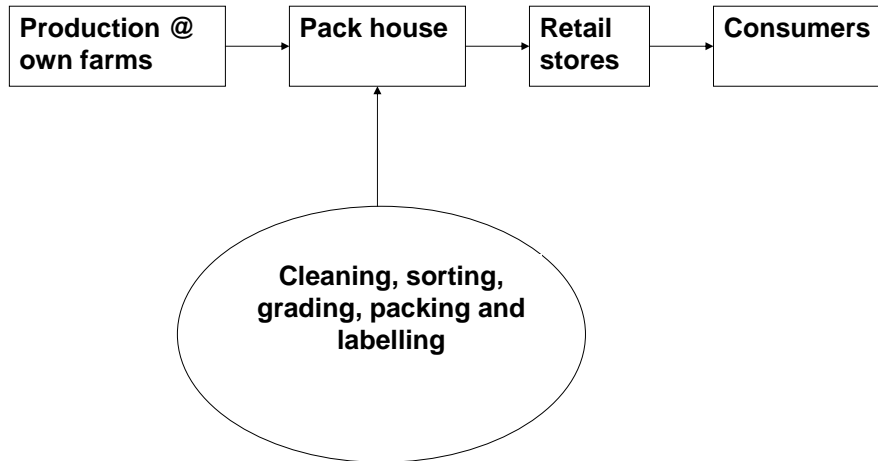
### **b. Export**

- Order received in advance specifying parameters
- Grading and packing according to specifications
- Transport by ship or air

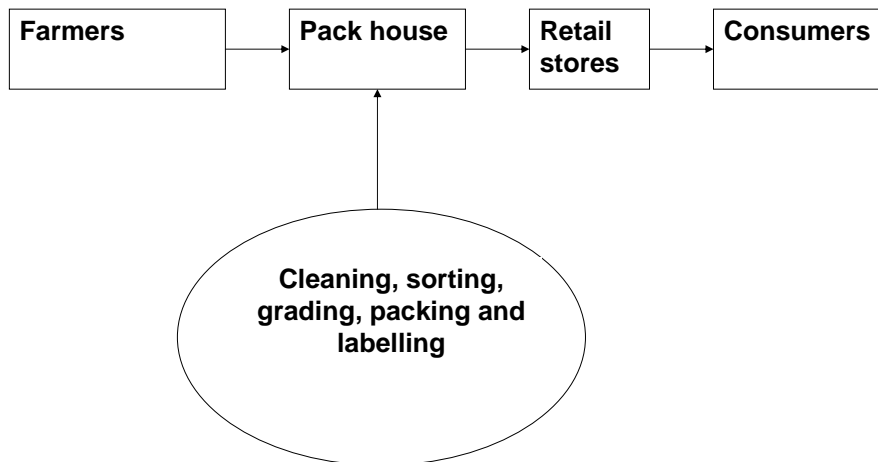
### **c. Institutions**

- Standing orders, daily and weekly orders
  - Supply by rail / air / road
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### Supply Chain of Fruits and Vegetables under Own Production



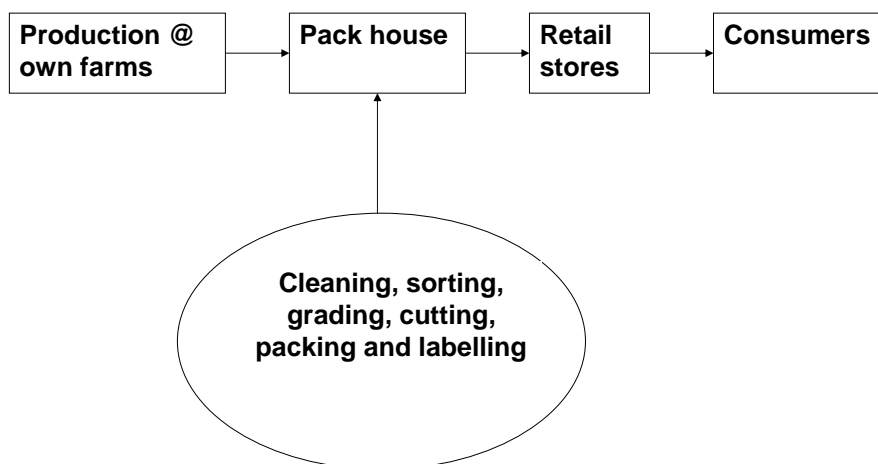
### Supply Chain of Fruits and Vegetables under Contract Farming



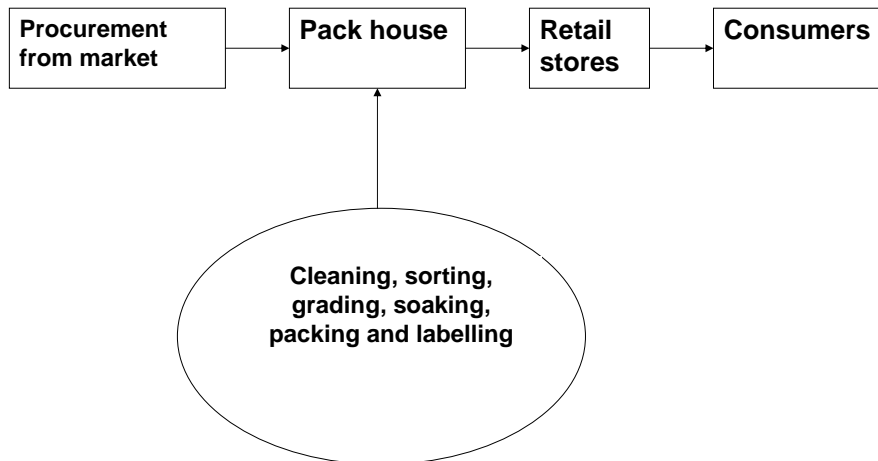
## Cut fruits and vegetables

- Recently introduced
- 4-6 types of vegetables cut and packed into different SKU's
- Similarly salads and sprouts
- Supply along with fruits and vegetables

## Supply Chain of Cut Vegetables and Salads



## Supply Chain of Sprouts

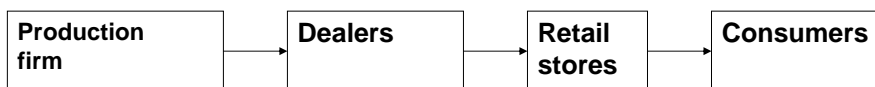


## Other products

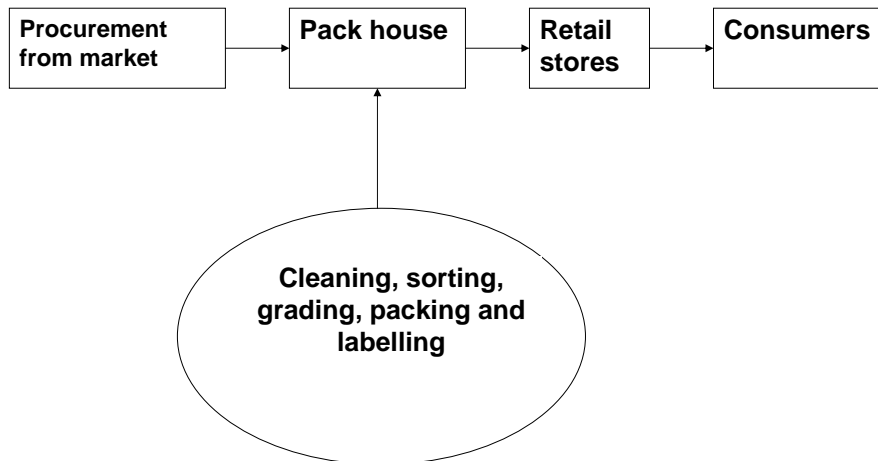
- Groceries, beverages, dairy products, bakery items, organic products, juices and sugar free products
- Sell good quality products of few companies
- Has arrangements with dealers
- Order twice a week from store to central processing unit and forwarded to dealers

- Dealers supply the order quantity directly to stores twice in a week
- Some groceries are also sold under own brand name
- Grocery procured from market, cleaned, graded, weighed and packed
- Transported along with fruits and vegetables

### Supply Chain of Groceries, Bakery and Dairy products



## Supply Chain of Groceries under its Store Brand



## Import

- Import some exotic fruits directly from Australia, Canada, USA and other countries

## Pricing

- Higher than market price
- For exotic varieties it is more than 20 of market price
- Based on production costs, overheads, local market prices and supply and demand conditions

## Conclusions

- Improved the efficiency and effectiveness of supply chain
- Eliminated middlemen by contract farming
- Leveraged the strengths of mother company
- Supply fresh produce, reduce losses by uninterrupted cold chain chain
- Costly
- Expansion depends on policies of respective state governments
- Quality maintenance will be a challenge











**Thank You**