



*A study on the Supply Chain Management of Guava
in Allahabad District of Uttar Pradesh*

*Dr.K.Malar Mathi
Assistant Professor
Department of Agribusiness Management
College of Business Studies
Allahabad Agriculture Institute-Deemed University*



Objectives

- (i) To determine the existing supply chain available for Guava in Allahabad district.
- (ii) To determine the post harvest losses due to the existing supply chain management.



Sampling Design

Multi stage stratified sampling design was adopted.

- First Stage -Selection of District -Purposive
- Second Stage-Selection of Blocks - Purposive
- Third Stage-Selection of Villages - Random
- Fourth Stage-Selection of Guava growers - Random
- Fifth Stage-Selection of market and market functionaries - Random



Sampling Procedures

- Selection of the Districts- Allahabad
- Selection of blocks- Chail and Mooratganj
- Selection of Guava growing villages- Five from each block
- Selection of Guava Growers-150
- Selection of Guava Markets and Market Intermediaries- Mundera mandi.

Marketable Surplus

S.no	Size Group	Total area (ha)	Total production (tonnes)	Marketable surplus (tonnes)
I	Small	38.62	552	551.92
II	Medium	84.56	1183.8	1183.66
III	Large	120.3	1443.6	1443.42

UTILIZATION PATTERN OF GUAVA (Kg)

S.n o.	Size group	Home consumption	Payment in kind, wages etc	Others	Total
I	Small	39	13	27	79
II	Medium	63.5	45	24.2	132.7
III	Large	58	65.5	15.8	139.3

Channels

- I Producer → Consumer _(LMF)
- II Producer → PHC → Consumer _(LMF)
- III Producer → WS/CA _(LMF) → Retailer _(LMF) → Consumer _(LMF)
- IV Producer → PHC → WS/CA _(LMF) → Retailer _(LMF) → Consumer _(LMF)
- V Producer → PHC → WS/CA _(LMF) → WS/CA _(DMF) → Retailer _(DMF) → Consumer _(DMF)
- VI Producer → PHC → WS/CA _(DMF) → Retailer _(DMF) → Consumer _(DMF)
- VII Producer → WS/CA _(DMF) → Retailer _(DMF) → Consumer _(DMF)

Producers' Share, Marketing Cost And Marketing Margins In The Marketing Of Fresh Guava Rs/q (figures in parentheses show percent in consumers' price)

Channels Levels	I	II	III	IV	V	VI	VII
Producers' share	455 (94.76)	350 (66.66)	475 (39.58)	352 (30.6)	325 (19.69)	350 (21.53)	473 (29.10)
Marketing cost	25 (5.20)	27 (5.14)	194 (16.66)	193 (16.78)	348.75 (21.36)	221 (13.6)	208 (12.8)
Marketing margin	-	148 (28.19)	531 (43.34)	605 (52.59)	986.25 (59.77)	1065 (65.53)	944 (58.09)
Consumers' Price	480 (100)	525 (100)	1200 (100)	1150 (100)	1650 (100)	1625 (100)	1625 (100)

Channel Wise Marketing Efficiency For Fresh Guava (Ratio)

Channels	I	II	III	IV	V	VI	VII
Particulars							
Fresh Guava	18.2	2.0	0.66	0.44	0.26	0.28	0.4

Post- Harvest Losses At Farm Level

S.no	Particular	Losses
1	Total fruits drawn	1Q
2	Raw fruits(good)	90.11 kg
3	Damaged fruits	-
3.1	Harvesting(loss)	2.67 kg
3.2	Grading	0.72 kg
3.3	Transportation	3.00 kg
3.4	Storage	3.50 kg
	Total damaged fruits	9.89 kg
	Physical loss	Rs. 49.45
	Total return realized	Rs.450.55

Economic Post - Harvest Loss At Farm Level (1q)

S.no.	Particulars	Rate Rs/Kg	Returns (Rs)
1	Total fruits drawn	5/-	500/-
2	Good quality fruits	5/-	450.55
3	Damaged fruits	2/-	19.78
	Total return realized	-	470.33
	Total economic loss	-	29.67
	Percent loss	-	5.93

Channel Wise Post Harvest Losses

Levels Channels	PHC	WS/CA (LMF)	Retailer (LMF)	WS/CA (DMF)	Retailer (DMF)
II	9.89 (Rs.29.50)	-	-	-	-
III	-	1.26 (Rs.5.60)	11.37 (Rs.13.50)	-	-
IV	9.80 (Rs.29)	1.25 (Rs.5.6)	11.35 (Rs.13.2)	-	-
V	9.89 (Rs.29.50)	1.25 (Rs.5.50)	-	5.5 (Rs.5.50)	14.1 (Rs.15.50)
VI	9.82 (Rs.29)	-	-	5.49 (Rs.5.41)	13.80 (Rs.14.41)
VII	-	-	-	5.45 (Rs.5.25)	12.69 (Rs.12.10)



Reasons for Post Harvest Losses

- Lack of modern technique
- Mechanical injury
- Lack of storage facility
- Unavailability of packaging material
- Ordinary transportation
- Irresponsible driving and rough roads
- Poor ventilation
- Lack of quality consciousness
- Lack of processing units



Problems Encountered By Farmers In The Marketing Of Guava.

S.no	Parameters	No. of respondents	Percent
1.	Lack of organization among farmers	121	80.6
2.	Lack of bargaining power	130	86.6
3.	Unavailability of Transportation	143	95.3
4.	Unavailability of Packaging material	145	96.6
5.	Lack of market information	141	94.0
6.	Problems of middlemen	120	80.0
7.	Lack of linkage between farmers and the processing units	110	73.3
8.	Lack of knowledge of post harvest technologies	143	95.3

