

Original Research Article

Comparative Study on Marketing and constraints of HYV Paddy vs. Black Aromatic Paddy (Chakhao) in Imphal East district of Manipur.

Abstract: The study was undertaken in Imphal East district of Manipur to examine the marketing cost, marketing margin, price spread, producer's share in consumer rupee, marketing efficiency and constraints face by the paddy grower (both HYV and Black aromatic paddy) in the study area. A sample of 120 farmers of Imphal East district (Manipur) was selected from 6 villages of two blocks for the year 2021-22. According to this study, there are two marketing channels exist in the study area. Channel-I: Producer- Consumer, Channel II: Producer – Wholesaler – Retailer – Consumer. Highest quantity of Black aromatic paddy was disposed in channels- II and for HYV is also disposed in channels -II. Marketing cost per quintal of HYV paddy and Black aromatic paddy was higher in channel -II (Rs.635/quintals) when compare to channel-I (Rs.115/quintals) where producer sell their product directly to the ultimate consumer. Price spread per quintal of HYV paddy was higher in channel -II (Rs.1391/quintals) than channel- I (Rs.115/quintals). In case of Black aromatic paddy it was highest in channel- II (Rs.6891/quintals) and channel-I (Rs.115/quintals). Producer's share in consumer rupee for Black aromatic paddy was highest in channel-I (98.73%) and channel-II (42.57%) which is lowest. For HYV paddy channel- I (94.25%) is higher than channel-II (53.63%). Channel- I (53.78) i.e producer - consumer was most efficient channel among the two marketing channels of Black aromatic paddy when compare to channel –II (0.74). Similarly for HYV Paddy higher in channel-I (16.39) when compare to channel-II (1.14). Price fluctuation, lack of suitable govt. Policy like procurement and market regulation are the major marketing constraints to the sample farmer in study area.

Keywords: Marketing channels, Producer's share in consumer rupee, Price spread

INTRODUCTION

India's agricultural marketing is inefficient due to a mismatch between prices paid by consumers and those received by producers, fragmented marketing channels, inadequate

infrastructure, and regulatory distortions. To overcome these problems and regulate the excesses of middlemen, urgent measures are required. In the meantime, price policy needs to be adjusted to reflect the changing demand and supply for different crops. The public sector is equally important to serving the greater social purpose of maintaining price stability through market activities, even as the private sector is crucial to enhancing efficiency. Agriculture markets' primary function is to transport goods from producers to consumers. However, in a broad sense, their role also covers providing producer firms with macroeconomic signals, offering incentives to help them reach the desired growth in agri-food output, enhancing producer and consumer welfare, balancing supply and demand, and encouraging the efficient use of resources in the production and distribution systems. (R.Chand 2012). An essential relationship between producer and consumer is marketing. A successful marketing strategy can be a powerful change agent and a crucial tool for improving consumer satisfaction and farmer income levels. It can be used to raise the average person's quality of life. A sizeable portion of the price that consumers pay for it is made up of the market cost and market margin. After making a significant financial commitment and putting in a lot of labour, the producer would obviously anticipate receiving the highest possible return on his investment. The marketing agency's effectiveness has an impact on the marketing costs, which in turn affect the pricing of various commodities inputs and output. (Aaker and Day,1980 and Acharya and Agarwal, 1987).The willingness of consumers to pay a premium for fragrance has risen dramatically (Louis *et al.*, 2005). Multiple studies conducted around the nation have revealed the various problems farmers experience in marketing their produce, indicate a poor degree of marketing efficiency, and discovered that the majority of farmers lacked a marketable surplus. In order to identify marketing constraints, it is necessary to evaluate the farmers' marketing strategy.

RESEARCH METHODOLOGY:

Sampling design:

Multi-stage stratified random sampling design was adopted for the selection of district as the first stage units, block as the second stage unit, villages as the third stage units and farm holdings as the final and ultimate stage units.

Selection of District

Imphal East district of Manipur is taken purposively as it has highest area under cultivation of HYV and black aromatic paddy among all the other districts.

Selection of Blocks

There are 4 blocks in the in Imphal East district out of that 2 blocks (Sawombung & Keirao) is selected purposively as it has highest in area under HYV paddy and Black Scented rice (Chakhao).

Selection of Villages

Complete list of all the villages is prepared with the help of Block Development Officer, and it is arrange in ascending order. There are 103 villages in the selected two blocks. Out of that cultivation of Black aromatic paddy and HYV Paddy is concentrated in 60 villages. Six villages were randomly selected for the study.

Selection of Sample Respondents/Farmers

A complete list of all the respondents growing both HYV paddy and Black rice were obtained from the Gram Pradhan /head in all selected villages. Then out of total farmers, 10% farmers is selected randomly for the present study. Respondents is categorized into groups on the basis of their land holding.

- Marginal = less than 1 ha
- Small = 1-2 ha
- Semi-Medium = 2-4 ha
- Medium = 4- 10 ha
- Large = more than 10 ha

All together total respondent are 120 viz., 42 marginal,36 small, 26 semi- medium,16 medium respondent respectively .There is no large farmer in the study area .

Table 1: Selected farm respondent during the agricultural year 2021-22

S.No.	Name of villages	Selected number of households/farmers in different farms group				
		Marginal	Small	Semi medium	Medium	Total

1	Andro	8	6	4	2	20
2	Huikap	5	6	4	4	19
3	Lambuikhun	7	6	4	3	20
4	Nongada	5	5	5	4	19
5	Seijang	9	7	4	2	22
6	Yambem	8	6	5	1	20
	Total	42	36	26	16	120

Sources: Primary data

Selection of market

The data related to prices and arrivals of black rice and HYV was collected from Khurai Lamlong Bazar as it the largest market in Imphal East.

Selection of market functionaries

A sample of 10% of all the market functionaries involved in the marketing process was randomly selected for the present study. All the marketing channels, which are prevalent for the selected crop, were followed to evaluate the marketing cost, marketing margin, price spread and producer's share in consumer's rupee in different marketing channels.

Table 2: Selection of market functionaries

S.No.	Market (primary and secondary)	Market Functionaries number	Total
1	Khurai lamlong Bazar	Wholesaler	14
		Retailers	12
	Total		26

Sources: Primary data

PERIOD OF ENQUIRY

The study will be conducted in agriculture year 2021-2022

Tools of data collection

Primary data was collected with the help of pre-structured Schedule, designed especially according to objectives set up for the study.

Secondary data was collected from library, journals, books, papers, any local governing bodies, market committee and their documents related with the topic.

ANAYTICAL TOOLS AND CONCEPT USED

Marketing Cost:

The total cost incurred on marketing by various intermediaries involved in the sale and purchase of the commodity till it reaches the ultimate consumer was computed as follow.

$$C = C_f + C_{m1} + C_{m2} + \dots + C_{mn}$$

Where,

C= Total cost of marketing

C_f = Cost paid by the producer from the time the produce leaves till he sells it

C_{mn} = Cost incurred by the i^{th} middlemen in the process of buying and selling the products.

Marketable Surplus

$$MS = P - C$$

Where,

MS = Marketable surplus

P = Total production

C = Total requirements (family consumption, farm needs, payment to labour, artisans, landlord and payment for social and religious work)

Producer's share in consumer's rupee

$$P_f$$

$$Ps = \frac{P_f}{P_r} \times 100$$

$$P_r$$

Ps = Producer's share

P_f = Price received by the farmer

P_r = Retail price paid by the consumer

Price spread

Price spread is define as the difference between the price paid by the consumer and the net price receive by producer for an equivalent quantity of farm produce.

Price spread = Consumer price - Net price of producer

Marketing Efficiency:

It has been calculated using Acharya's Modified Marketing efficiency .Formulae as follows

$$MME = \frac{FP}{MC + MM}$$

FP= Price received by farmer

MC= Marketing Cost

MM = Marketing Margin

Garrett's Ranking Technique

Garrett's Ranking Technique used in order to rank the problems faced by the cultivators in production and marketing of paddy respectively.

According to this, the respondents were asked to assign rank to different problems by using the following formula (Garrett and Woodsworth, 1969):

Per cent position = $[100(R_{ij} - 0.5)] / N_j$

Where ,

R_{ij} = rank given for i^{th} problem by j^{th} individual;

N_j = number of problems ranked by the j^{th} individual.

RESULT AD DISCUSSION

Table 3: Disposal Pattern of HYV Paddy in Different Size of Farm Group

Number of Respondent = 120
M S SM M=42+36+26+16 = 120
(Quantity in Quintals)

S.no	Particulars	Size of Farms Group				Sample average
		Marginal	Small	Semi-medium	Medium	
1.	Total Production of HYV Paddy in quintals	26.6 (100)	53.43 (100)	103.42 (100)	187.65 (100)	92.77 (100)
2.	Retains for HYV Paddy (in quintals)					
3.	Home Consumption	3.49 (13.12)	8.23 (15.34)	18.45 (17.8)	35.24 (18.77)	16.34 (17.61)
4	Total retention for HYV Paddy	3.49 (13.12)	8.23 (15.34)	18.45 (17.8)	35.24 (18.77)	16.34 (17.61)
5	Marketable surplus	23.11 (86.87)	45.23 (84.65)	84.97 (82.16)	152.41 (81.22)	76.43 (82.38)

Sources: Primary data

Note: Figures in the parenthesis indicate percentage to the total

Disposal pattern of HYV Paddy is shown in table 3, it shows that total production of HYV Paddy in marginal, small, semi- medium and medium were 26.6 quintals, 53.43 quintals, 103.42 quintals and 187.65quintals. This makes the sample average for total production of HYV Paddy 92.77quintals. Retentions for HYV Paddy is only for home consumption, it is highest in medium size farms 18.77 per cent, followed by semi medium size farms 17.8 per cent, small 15.34 per cent and marginal farms is 13.12 percent respectively. This makes the sample average for home consumption17.61 per cent.

Table 4: Disposal Pattern of Black Aromatic Paddy in Different Size of Farm Group

Number of Respondent = 120

M S SM M=42+36+26+16 = 120

(Quantity in Quintals)

S.no	Particulars	Size of Farms Group				Sample average
		Marginal	Small	Semi-medium	Medium	
1.	Total Production of HYV Paddy in quintals	8.7 (100)	15.24 (100)	28.94 (100)	60.98 (100)	28.46 (100)
2.	Retains for Black Aromatic Paddy (in quintals)					
3.	Home Consumption	1.35 (15.51)	2.5 (16.40)	4.82 (16.65)	10.62 (17.41)	4.82 (16.64)
4	Total retention for HYV Paddy	1.35 (15.51)	2.5 (16.40)	4.82 (16.65)	10.62 (17.41)	4.82 (16.93)
5	Marketable surplus	7.35 (84.48)	12.74 (83.59)	24.12 (83.34)	50.36 (82.58)	23.64 (83.06)

Sources: Primary data

Note: Figures in the parenthesis indicate percentage to the total

Disposal pattern of Black Aromatic Paddy is shown in table 4, it shows that total production of Black Aromatic Paddy in marginal, small, semi- medium and medium were 8.7quintals, 15.24 quintals, 28.94 quintals and 60.98quintals. This makes the sample average for total production of HYV Paddy 28.46quintals.

Retention for Black Aromatic Paddy is only for home consumption, it is highest in medium size farms 17.41 per cent, followed by semi medium size farms 16.65 per cent, small 16.40 percent and marginal farms is 15.51 percent respectively. This makes the sample average for home consumption 16.64 per cent.

Table 5: Disposal pattern of marketable surplus in different channels of marketing in different Size of farm group of HYV Paddy

$$M S SM MD= 42+36+26+16 =120$$

(Quantity in Quintals)

S.no	Particulars	Size of Farms Group	
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		Marginal	Small	Semi-medium	Medium	Sample average
1	Marketable surplus from own farm	23.11 (86.87)	45.23 (84.65)	84.97 (82.16)	152.41 (81.22)	76.43 (82.38)
2	Quantities purchased from other farms	-	-	-	-	-
3	Actual Marketable surplus (in quintals)	23.11 (86.87)	45.23 (84.65)	84.97 (82.16)	152.41 (81.22)	76.43 (82.38)
	Producer - consumer	4.65 (20.16)	8.79 (19.45)	13.95 (16.42)	27.98 (18.36)	13.84 (18.10)
	Producer -wholesaler-retailer-consumer	18.46 (79.87)	36.44 (80.56)	71.02 (83.58)	124.43 (81.64)	62.58 (81.87)

Sources:Primary data

Note: Figures in the parenthesis indicate percentage to the total

Table 5 shows the disposal pattern of Marketable surplus in different channels of marketing in different size farm group of HYV paddy farmer. The actual marketable surplus is highest in case of medium size farm group (152.41 quintals) followed by semi-medium (84.97 quintals), small size farm (45.23 quintals) and marginal size farm (23.11 quintals) respectively. It is seen from the table 6 that producer in the study area dispose their produce in two channels prevailed in the study area. The most prefer channel for disposal of their produce is channel II followed by channel I.

Table 6: Disposal pattern of marketable surplus in different channels of marketing in different Size of farm group of Black Aromatic Paddy.

$$M S SM MD = 42 + 36 + 26 + 16 = 120$$

(Quantity in Quintals)

S.no	Particulars	Size of Farms Group	

		Marginal	Small	Semi-medium	Medium	Sample average
1	Marketable surplus from own farm	7.35 (84.48)	12.74 (83.59)	24.12 (83.34)	50.36 (82.58)	23.64 (83.06)
2	Quantities purchased from other farms					
3	Actual Marketable surplus (in quintals)	7.35 (84.48)	12.74 (83.59)	24.12 (83.34)	50.36 (82.58)	23.64 (83.06)
	Producer - consumer	2.6 (35.37)	4.15 (32.65)	7.39 (30.65)	15.82 (31.42)	7.49 (31.68)
	Producer - wholesaler-retailer-consumer	4.75 (64.63)	8.59 (67.42)	16.73 (69.35)	34.54 (68.58)	16.15 (68.31)

Sources: Primary data

Note: Figures in the parenthesis indicate percentage to the total

Table 6 shows the disposal pattern of Marketable surplus in different channels of marketing in different size farm group of Black aromatic paddy. The actual marketable surplus is highest in case of medium size farm group (50.36 quintals) followed by semi-medium (24.12 quintals), small size farm (12.74 quintals) and marginal size farm (7.35 quintals) respectively. It is seen from the table 6 that producer in the study area dispose their produce in two channels prevailed in the study area. The most prefer channel for disposal of their produce is channel II followed by channel I.

Table 7: Marketing Cost, Marketing Margin, Price spread and Marketing Efficiency in Channel I

M S SE ME 42+36+26+16=120

Producer - consumer

S.No	Particulars	H.Y.V paddy		Black scented paddy	
		Price/Qtl	Percentage	Price /Qtl	Percentage
1	Producer sale price	2000		6300	
2	Cost incurred by producer				
A	Cost of bags	60	3.0	60	0.95
B	Loading/unloading	40	2.0	40	0.63
C	Weighing charges	5	0.25	5	0.07
D	Miscellaneous charge	10	0.5	10	0.15
	Total marketing cost	115	5.75	115	1.26
3	Consumer paid price	2000	100	6300	100
4	Net price received by Producer	1885		6185	
6	Producer's share in consumer rupee	94.25		98.17	
7	Price spread	115		115	
8	Marketing efficiency	16.39		53.78	

Sources: Primary data

Figure in the parenthesis indicates percentage to the total consumer price

The above table 7 reveals the marketing cost, marketing margin, price spread and marketing efficiency of HYV Paddy and Black Aromatic Paddy in channel I. For HYV Paddy the producers sale price was Rs 2000/quintals and the marketing cost include cost of bags Rs 60/quintals, unloading & loading cost Rs 40/quintals, weighing charges Rs 5/quintals and miscellaneous charge Rs 10/quintals which makes the total marketing cost 5 per cent. The net price received by the producer was Rs 1885/ quintals. Producer's share in consumers rupee was 94.25 percent. Price spread was Rs 115/ which makes the marketing efficiency 16.39.

In case of Black Aromatic Paddy, the producers sale price was Rs 6300/quintals and the marketing cost include cost of bags Rs 60/quintals, unloading & loading cost Rs 40/quintals, weighing charges Rs 5/quintals and miscellaneous charge Rs 10/quintals which makes the total marketing cost 1.26 per cent. The net price received by the producer was Rs6185/ quintals. Producer's share in consumers rupee was Rs 98.17 percent. Price spread was Rs 115/qt which makes the marketing efficiency 53.78

Table 8: Marketing Cost, Marketing Margin, Price spread and Marketing Efficiency in Channel II

$$M \ S \ SE \ ME \ 42+36+26+16=120$$

Producer- Wholesaler - Retailer - Consumer

S.No.	Particulars	H.Y.V paddy		Black scented paddy	
		Price/Qtl	Percentage	Price /Qtl	Percentage
1	Producer sale price	1750		5250	
2	Cost incurred by producer				
A	Cost of bags	60	2	60	0.5
B	Loading/unloading	40	1.3	40	0.33
C	Weighing charges	5	0.16	5	0.04
D	Transportation charges	30	1	30	0.57
D	Miscellaneous charge	6	0.2	6	0.05
	Total marketing cost	141	4.7	141	1.75
3	Net price received by Producer	1609	53.63	5109	42.57
4	Cost incurred by wholesaler				
A	Cost of bags	60	2	60	0.41
B	Miscellaneous charges	8	0.26	8	0.06
C	Transportation charges	100	3.33	100	0.83
D	Weighing charges	5	0.16	5	0.04

	Loading /unloading	40	1.3	40	0.33
	Market fee	8	2.6	8	0.06
E	Total marketing cost	221	7.36	221	1.84
5	Sale price of wholesaler to retailer	2640	88	10000	83.33
6	Wholesaler margin	519	17.3	4369	36.4
7.	Cost for milling				
A	Loading/unloading	40	1.3	40	0.33
B	Processing charges	70	2.33	70	0.58
C	Storage	50	1.66	50	0.04
	Total cost of milling	160	5.33	160	1.33
8	Cost incurred by retailer				
	Weighing charges	5	0.16	5	0.04
	Loading /unloading	40	1.33	40	0.33
	Market fee	8	0.26	8	0.06
	Miscellaneous charges	10	0.33	10	0.08
	Transportation charges	50	1.66	50	0.41
	Total marketing cost	113	3.76	113	0.94
	Sale price of retailer to consumer	3000	100	12000	100
9	Retailer margin	247	8.23	1887	17.60
10	Price spread	1391		6891	
11	Producer's share in consumer rupee	53.63		42.57	
12	Marketing efficiency	1.14		0.74	

Sources: Primary data

Figure in the parenthesis indicates percentage to the total consumer price

Table 8 reveals the marketing cost, marketing margin, price spread and marketing efficiency in channel II of HYV Paddy and Black Aromatic Paddy. In case of HYV Paddy, Cost incurred by the producer shows that the total marketing cost was 4.7 percent and net price received by producer was 53.63 percent. Cost incurred by wholesaler includes marketing cost like packing cost Rs 60/quintals, transportation cost Rs 100/quintals, weighing charges Rs 5/quintals and miscellaneous charges Rs 8/quintals respectively. This makes the total marketing cost of 7.36 per cent. Sale price of wholesaler to retailer was 88 per cent and the wholesaler margin was 17.3 per cent. Cost incurred by retailers includes unloading & loading cost Rs 40/quintals, weighing charges Rs 5/quintals and miscellaneous charges Rs 10/quintals respectively which makes the total marketing cost 3.76 per cent. Sale price of retailer to consumer is Rs 3000/quintals and retailer margin was 8.23 per cent. Price spread was Rs 1391 and producer's share in consumer rupee was 53.63 percent, which makes the marketing efficiency 1.29.

Whereas , In Black Aromatic Paddy, Cost incurred by the producer shows that the total marketing cost was 1.75 percent and net price received by producer was 42.57 percent. Cost incurred by wholesaler includes marketing cost like packing cost Rs 60/quintals, transportation cost Rs 100/quintals, weighing charges Rs 5/quintals and miscellaneous charges Rs 8/quintals respectively. This makes the total marketing cost of 1.8 per cent. Sale price of wholesaler to retailer was 83.33 per cent and the wholesaler margin was 36.4 per cent. Cost incurred by retailers includes unloading & loading cost Rs 40/quintals, weighing charges Rs 5/quintals and miscellaneous charges Rs 10/quintals respectively which makes the total marketing cost 0.94 per cent. Sale price of retailer to consumer is Rs 12000/quintals and retailers margin was 17.60 per cent. Price spread was Rs 6891 and producer's share in consumer rupee was 42.57 percent, which makes the marketing efficiency 0.74.

Table 9: Estimation of Total Marketing Cost and Marketing Margin in Different Channels

Number of Respondent = 120

M S SE ME 42+36+26+16=120

(Value Rs/Quintals)

S.no	Particulars	Channel I H.Y.V	Channel I B.R	Channel II H.Y.V	Channel II B.R
1	Total marketing cost	115	115	635	635
2	Total marketing margins	0	0	766	6256
3	Price spread	115	115	1391	6891
4	Producer's share in consumer rupee in per cent	94.25	98.17	53.63	42.57
5	Marketing efficiency in per cent	16.39	53.78	1.14	0.74

Sources: Primary data

Table 9 represents the marketing efficiency of HYV Paddy and Black Aromatic Paddy in different marketing channels of operation in the study area. It was evident that marketing efficiency for black aromatic paddy was much higher in channel-I (53.78) than that of the channel-II (0.74). Similarly, marketing efficiency for HYV Paddy was higher in channel-I (16.39) followed by channel-II (1.14). Thus, the study revealed that channel-I is the most efficient channel for both HYV Paddy and Black Aromatic Paddy among the two channels of marketing. This was due to the absence of middlemen and consequently the cost incurred in this channel was much lower as compared to channel-II.

Table 10: Constraints in Marketing of paddy in study area

S.No.	Particulars	Garrett mean Score	Ranking
1.	Market is far from production point	48.83	VII
2	High cost of transportation	38.4	IX
3.	Malpractices in weighing	50.12	VI
4.	Price fluctuation	73.64	I
5.	Lack of suitable govt. Policy like procurement ,market regulation	61.21	II
6.	Dependence on middlemen	53.32	IV
7.	Lack of skilled labour for packing	45.78	VIII
8.	Lack of proper infrastructure in market	60.44	III
9.	Lack of storage facility	53.30	V

Sources: Primary data

Fig 1: Constraints in Marketing of Paddy

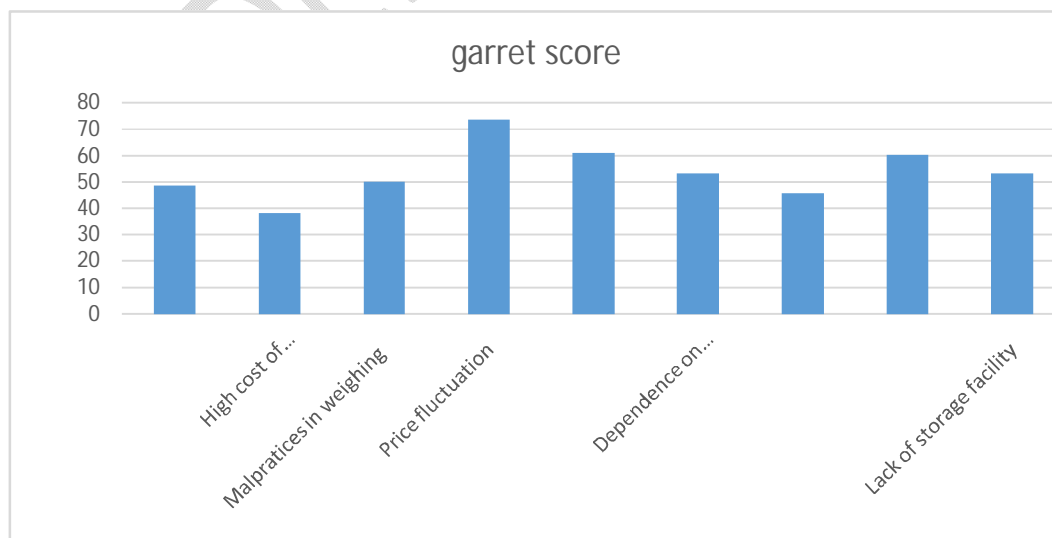


Table 10 shows the Constrains faced by the paddy grower in marketing of Paddy in the study area. Most of the respondents expressed that the major constrains in marketing of Paddy was Price fluctuation (1st rank) followed by Lack of suitable Govt. policy like procurement, market regulation(2nd rank),lack of proper infrastructure in market(3rd rank), Dependence on middlemen(4th rank) lack of storage facility(5th rank),malpractices in weighing(6th rank), market is far from production point(7th rank) , lack of skilled labor for packing (8th rank) , high cost of transportation at (9th rank) .

UNDER PEER REVIEW

CONCLUSION:

The study reveals the marketing and constraints of HYV paddy and Black aromatic paddy in Imphal East district, Manipur. From the study it is known that there exist two marketing channels for HYV paddy and Black aromatic paddy in Imphal East. Channels- I : Producer - Consumer, Channels - II : Producer - Wholesaler - Retailer – Consumer. Large amount of produce are retained for home consumption and the remaining produce is marketed through two marketing channels i.e channel-I producer - consumer and channels -II producer-wholesaler- retailer - consumer .it was observed that channel-I was the most efficient channel and farmer received highest price for their produce in this channel. Price fluctuation, lack of suitable govt. Policy like procurement and market regulation, lack of proper infrastructure in market, Dependence on middlemen are the major constraints to the sample farmer.

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