

## CONSTRAINTS IN MARKETING OF FOX NUT IN MADHUBANI DISTRICT OF BIHAR

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**ABSTRACT:** Fox nut, Gorgon or fox nut grows in water bodies that are permanent all year round, such as lakes, stream lakes and swamps. Fox nut cultivation provides business to thousands of destitute ranchers, especially in Bihar and Manipur. It may be a commercial item sold as popcorn and prevalent known as Fox nut Lawa. In India, Fox nut is developed in Bihar, West Bengal, Assam, Manipur, Tripura, Eastern Odisha, Madhya Pradesh, Rajasthan and Eastern Uttar Pradesh. India is the as it were nation that develops Fox nut, particularly in Bihar and Assam districts. The zone beneath Fox nut development in Bihar is roughly 13,000 hectares and the whole generation accounts for 85% of India's add up to generation. Major generation centers of Fox nut in Bihar incorporate Darbhanga, Sitamarhi, Madhubani, Saharsa, Supaul, Araria, Kishanganj, Purnia and Katihar. Almost 80% of all Fox nut frameworks come from Darbangha, Madhubani, Purnia and Katihar areas alone. The imperatives within the generation, handling and promoting of Fox nut were inspected through Garrett's positioning and participants' suppositions. The greatest imperatives to generation are the need of lake ownership, labor-intensive agriculture, need of moved forward seeds, need of credit, need of specialized information, get to to lakes by a couple of able-bodied individuals, and need of water within the lake. The most confinements of the trade are need of apparatus and hardware, need of credit offices, reliance on climate conditions and process-related wellbeing dangers. The greatest obstacles to trade are seen as cost instability, need of transportation offices, and improper and lacking exchange. Tools/equipment must be outlined for collecting. Smokeless Chulhas require the construction of a chimney and gloves have to be given amid the burning prepare. Preparing, esteem expansion, classification, bundling, capacity and promoting ought to be essentially moved forward. Fox nut can be enrolled as a Topographical Sign (GI) to protect the conventional information and procedures of Fox nut makers within the state. Fox nut ranchers can interface with microfinance teach (MFIs) who will provide them with microcredit on time.

**Keyword:** Marketing Channels, Production constraints, processing constraints, marketing constraints

Fox nut is an organic, nutritious, grain-free food product. Fox nut is a good source of carbohydrates, protein and minerals. In recent years, the price of Fox nut has also increased due to the increase in demand in the domestic and foreign markets. The crop is considered an important crop in Bihar and has the potential to alleviate poverty of a section of growers. It is an important aquatic plant and belongs to the Nymphaeaceae family. Commonly known as Fox nut, Gorgon nut or Fox nut, this plant grows every year in water bodies such as lakes, Oxbow lakes and swamps. Fox nut cultivation provides livelihood to thousands of poor farmers, especially in Bihar and Manipur. It is a commercial product sold as popcorn and popularly known as Fox nut Lawa. In India, Fox nut is grown in Bihar, West Bengal, Assam, Manipur, Tripura, Eastern Odisha, Madhya Pradesh, Rajasthan and Eastern Uttar Pradesh. India is the only country that grows Fox nut, especially in Bihar and Assam regions. The area under Fox nut cultivation in Bihar is approximately 13,000 hectares and the total production accounts for 85% of India's total production. Major production centers of Fox nut in Bihar include Darbhanga, Sitamarhi, Madhubani, Saharsa, Supaul, Araria, Kishanganj, Purnia and Katihar. About 80% of all Fox nut systems come from Darbangha, Madhubani, Purnia and Katihar districts alone. Growing Fox nut is very

difficult and labor intensive; It requires people to work hard, sweeping the bottom of the water table to collect the seeds. Then comes the business equivalent of processing raw seeds. Community fishermen (Mallah) are a poor group and are mostly involved in the cultivation and production of Fox nut. Although the traditional method is to plant in ponds, planting is now also done in fields. Planting is done in agricultural areas where there is 1-2 feet of water in field systems.

## RESEARCH METHODOLOGY

Madhubani districts of north Bihar were purposively selected for conducting the study as have larger area under Fox nut cultivation in Bihar. A list of Fox nut growing blocks was prepared on the basis of Fox nut pond area and arranged in ascending order. Out of the total Fox nut growing blocks in Madhubani district, Rajnagar block were selected randomly. After selection of block, list of all the villages were prepared and five villages from these two selected blocks were selected randomly. In this way, ten villages i.e. five percent villages from madhubani district were selected. Lists of all the Fox nut growers of all five percent selected villages in each selected block were prepared along with their pond area. The list was rearranged in ascending order based on their pond area under Fox nut cultivation. From the list of all Fox nut growers in

a block, ten percent Fox nut growers were randomly selected. In this way altogether one hundred twenty Fox nut growers were selected for detailed study. Data from Fox nut cultivator were collected through survey

methods through direct personal interview. Appropriate statistical tools were used to analyze the data and present the result. The Data pertained to the agricultural year 2023-2024.

### Analytical Tools

Garret Ranking: Per cent position =  $100 (R_{ij} - 0.5) / N_j$

## RESULTS AND DISCUSSION

There are two channels that are identified in marketing of Fox nut in Madhubani District of Bihar.

- **Channel – I:** Producer - Wholesaler - Consumer
- **Channel – II:** Producer – Wholesaler – Retailer - Consumer

**Table 1:** Distribution of respondents based on their preference on marketing channel

S. No.	CHANNEL	Respondents Number	Respondents			
			Small	Medium	Large	Percentage (%)
1	CHANNEL- I	21	11	8	2	17.50
2	CHANNEL -II	99	52	34	13	82.50
<b>Total</b>		<b>120</b>	<b>63</b>	<b>42</b>	<b>15</b>	<b>100.00</b>

**Table- 2:** Constraints in marketing of Fox nut.

Sr. No.	Particulars	Frequency	Ranking
1	Labour intensive cultivation	25	I
2	No ownership of pond	16	II
3	Lack of Machinery in processing	17	III
4	Lack of MSP on Fox nut	13	IV
5	Price fluctuation	11	V
6	Lack of credit facilities	10	VI
7	Lack of scientific knowledge	9	VII
8	Lack of improved varieties	7	VIII
9.	Lack of transport facilities	6	IX
10	Inadequate Market structure	4	X

It is stated in Table- 1 that total 120 samples were collected in Madhubani district of Bihar for Fox nut marketing. Of the total small size of group respondents 63 was highest than medium 42 and large 15 respondents respectively. It was observed from the study that most of the highest sellers were belong to small size groups of the respondents buying from Channel-II which is 99 (82.50%), and 21 (17.50%) Prakash and Choudhary (2020).

The study of marketing of Fox nut reveals that the constraints including labour-intensive cultivation being the top-ranked issue with 25 respondents, followed by no ownership of pond with 16 respondents, lack of

machinery in processing with 17 respondents, absence of MSP on Fox nut in processing with 13 respondents, price fluctuation with 11 respondents, lack of credit facilities with 10 respondents, insufficient scientific knowledge with 9 respondents, inadequate improved varieties with 7 respondents, lack of transport facilities with 6 respondents, and inadequate market structure with 4 respondents as depicted in Table 2, Puri A, Sahai R, Singh KL (2000).

## CONCLUSIONS

The current study found that Fox nut were sold in the Madhubani district of Bihar through two marketing channels: Channel I, Producer-Wholesaler-Consumer; and Channel II, Producer-Wholesaler-Retailer-

Consumer. In the Madhubani district, channel II is the most preferred marketing channel for Fox nut, as shown by the majority of respondents who responded from the complete selected sample in the research region. Present study shows that the ten main obstacles that poultry farm owners in the study face when trying to sell Fox nut are: labour-intensive cultivation being the top-ranked issue with 25 respondents, followed by no ownership of pond with 16 respondents, lack of machinery in processing with 17 respondents, absence of MSP on Fox nut in processing with 13 respondents, price fluctuation with 11 respondents, lack of credit facilities with 10 respondents, insufficient scientific knowledge with 9 respondents, inadequate improved varieties with 7 respondents, lack of transport facilities with 6 respondents, and inadequate market structure with 4 respondents.

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