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A Study on The Production and Marketing of King Chilli in Biswanath District Assam

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Abstract: The present study on "A Study on the Production and Marketing of King Chilli in Biswanath district" was conducted in Biswanath district of Assam. The study revealed that the average area under King chilli was 7.33 bigha. The average land holding under King Chilli cultivation is 27.2 bigha for big farmers, followed by 12.7 bigha, 4.9 bigha and 2.5 bigha for small, marginal and landless farmers respectively. Per farm production for the entire sample was 98.3 quintals, while productivity was recorded as 6 quintal per bigha. For the whole farm, highest input cost was incurred in hired human labour (Rs 15600 per bigha), followed by cost of harvesting (Rs 7200 per bigha), cost of seedlings (Rs 6750 per bigha) and interculture operation (Rs 6000 per bigha) Cost A, Cost A1, Cost A2, Cost B and Cost C for the average farm per bigha were Rs 30150, Rs 3000, Rs 35750, Rs 33150 and 39950 respectively. The average marketing cost per quintal across different cost components was Rs 1295, which is made up of several components viz., rental value of godown Rs 100, transportation cost Rs 1050, weighing charge Rs 90 and office expenses Rs55 per quintal.

The study identified price fluctuation and limited storage facilities as the major constraints in production and marketing of King Chilli respectively. Examining the constraints noted in the study area, following suggestions are drawn may be advised to form EPO/FPC. As price support mechanism and attempt should be made for post-harvest management to avoid losses and glut in the market.

Keywords: King Chilli, Biswanath, Bhut jolokia, Production, Price Instability

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INTRODUCTION

India is bestowed with diversified Chilli varieties. Among them, King Chilli also known as *Capsicum chinensejacq.* is valued globally for its exceptional hotness. It is said that one equals to the hotness of hundreds of normal Chilies, a single piece is enough to be shared by the whole family and so is the "King" of all other Chilli. King Chilli originated in the North Eastern region of India. It has been one of the important cuisines of North East people since the past but it was almost unknown to the world(Baruah, 2019).Chilli was first introduced by Portuguese towards the end of 15th century and its cultivation gained popularity in 17th century (Malangmeih & Rahaman, 2016). In the year 2020, Defense Research Laboratory of Tezpur, Assam first struck its burning hotness. Bhut Jolokia is an indigenous Chilli variety local to the North - East region of India, mainly found in Nagaland, Manipur and Assam(Baruah, 2019). King Chilli which contains more capsaicin (3-5%) as compared to any other Indian Chilli is a traditional food item of the people of Nagaland and believed to be the original home (Jamir & Jha, 2020). Nagaland Government also received Geographical Indication for this Chilli in 2008 to favour commercial benefit (Baruah, 2019). Since, the past, king Chilli has been an important culinary tradition in North East but remained unknown to the world. Bhut Jolokia was internationally recognized when the Guinness World Records in 2007 crowned it as the world's hottest Chilli pepper for its Scoville Heat Unit (SHU) rating over 10,001,304 (Barua & Islam, 2023). The title of hottest Chilli created international demand for the Chilli (Baruah, 2019). Most cultivated species of Chilli are Capsicum annum, Capsicum Frutescene and Capsicum Chinese. Among these the hottest and most cultivated variety is king Chilli (*Capsicum Chinese Jacq.*) well known for its distinct pungency and aroma which originated in north- east India. Naga king Chilli (*Capsicum Chinese*) also locally called "Naga Mircha" or "Bhut jolokia" belongs to the genus Capsicum of Solanaceae or nightshade family(Malangmeih & Rahaman, 2016). Bhut Jolokia thrives in hot and humid climates, making the North-eastern region of India a suitable habitat for its growth. The states of Assam, Nagaland, Manipur, and Mizoram are particularly well-suited due to their ecological environment, characterized by high temperatures and moisture content. These conditions contribute to the chili's distinctive heat and flavor.

Bhut Jolokia is one of the most important and economical spices cultivated in Assam. The color of this Chilli ranges from light green, yellowish green to dark green in young fruits and gradually changes into light

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red, bright red and even chocolate while the texture varies from crumpled to semi smooth as well as gloomy with fleshy tissue (Malakar *et al*., 2019). In Assamese tradition, it is familiar to every family for its rich aroma, texture and heavenly taste by consuming it either freshly plucked or as spices or as a refined form like pickles, dried powder, dried Chilli, sauces etc.(Baruah, 2019). It also has great potential for value addition and its chemical constituents are in use in pharmaceutical and food industry as natural colouring etc. (Jamir & Jha, 2020). Besides, it's described in ancient literature that it is incorporated in preparing medicine as it contains high capsaicin content for treating ailments like pain relief, digestive health, congestion and asthma, an anti-cancerous molecule and combatting summer heat etc. It serves a rich source of vitamin A, C and E (Baruah, 2019).

Economic importance of King Chilli

King chilli is a fruit cum vegetable with great economic importance(Malakar *et al*., 2019) particularly in the Northeastern region of India, for serving distinct flavor and aroma(Baruah, 2019).Demand of King Chilli is very high both in domestic and international markets because of its extra powerful pungency and captivating aroma(Rishabh Kumar Singh, 2024).Cultivation of king Chilli provides sources of income generation for a number of farmer's and support local economics as the capsaicin present in king Chilli has been reported to have various pharmacological activities and some of the clinical applications(Malakar *et al*., 2019). It is viewed as world's spiciest Chilli's and its production is done not only for domestic consumption but also for the export purpose, USA being the major importer, nearly 10 tonnes of products is exported annually(Baruah, 2019).King Chilli has become one of the important cash Crop of Assam (Baruah, 2019) as it is both considered as food and spices and is consumed both in fresh (cooked or raw) and in dried forms (Konyak *et al*., 2022) and it has been historically used to treat a variety of human diseases(Das *et al*., 2024). The increasing demand for naturally grown spices has further increased its market value globally. The production of king Chilli is contributing to a great extent in generating employments for farmer in crop cultivation, field management, harvesting, packaging and marketing as it involves a large number of human labor including women andyouth. This significantly boost rural livelihood and advances the socio- economic development of the farming communities.

The commercial cultivation of Bhut Jolokia has emerged as a promising venture in several regions, particularly in India's North-eastern states. Renowned for its extreme spiciness and unique flavor profile, Bhut Jolokia's commercial cultivation not only offers economic opportunities but also contributes to the preservation of traditional agricultural practices and biodiversity (Das *et al*., 2024)

Value chain mode of king Chilli

The value chain mode of king Chilli refers to a series of activities and stakeholders who are involved from production to the final marketing of the product. The king Chilli value chain is traditionally driven by farmer but for higher profit it can also include process of value- addition. In most cases, it function from farm -to -market system which involves various stages of value addition to increase its economic return and market value. These stages of king Chilli value chain are given below:

- Input supply- This stage involve preparing essential inputs or raw materials required for cultivation like seed, manures and fertilizer and other inputs like labor, mulching etc. Here, some farmers traditionally save seeds from their previous harvest or buy from suppliers . Farmers mostly rely on organic manures like farmyard manure (FYM), vermicompost and plant ash and minimum chemical fertilizers to protect soil and preserve crops quality.
- Cultivation and harvesting- This stage involves the growing process of king chilly mostly in traditional and organic practices like preparing land by clearing forest area, jhum or shifting cultivation and tilling manually, preparing nursery by growing seedlings in small bed before transplanting to main field, transplanting and harvesting it at different stages manually depending on final use.
- Post - harvest handling and value addition- In this stage, after the harvesting of king Chilli various value addition is done to increase value and prepare the Chilli for market through cleaning and sorting by separating rotten Chilli's from good quality, making dried Chilli, and packaging the dried and fresh Chilli to sell in a market and lastly adding value by processing it in a pickle, sauces, Chilli powder and dry Chilli.
- Distributing and marketing- In this stage king Chilli's enter into several marketing channels in order to reach different consumer, each with its own cost and efficiency level. Here, middleman plays an important role in connecting producers to consumers. Example; wholesaler, retailers, online platforms etc. Some of the marketing channels include-
    - Channel 1- producer-consumer
    - Channel 2- producer-middleman – consumer
    - Channel 3-producer- wholesaler-middleman- consumer
    - Channel 4- Farmers – Middleman(Baruah, 2019).

Production and price instability

In simple term, it means variation or change in the amount of crop produced and the price it received from the market over the time. The chances of instability of price for king Chilli are high because of their delicate, perishable and seasonal nature, changing climate

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condition and disordered market system.Fluctuations in market arrivals largely contribute to the price instability of the produce (Bhavani Devi *et al*., 2016).

Causes of price instability Seasonal variation- Throughout the year, prices of king Chilli changes depending on the supply and demand. Mostly during off -season price are highest when supply is limited during harvesting period from May to September when surplus make market entry.However, the price of green King chilli varies seasonally, ranging from a reasonable Rs.300-400/kg during the season to higher prices (Rs.600-800/kg) in the off-season (Rishabh Kumar Singh, 2024)

- Limited market access- Farmers residing in remote areas and poor road condition hinders them from accessing larger market , compelling them to sell their produce to intermediaries (wholesaler, retailer) in a much lower rate.
- **Production and price instability**

In simple term, it means variation or change in the amount of crop produced and the price it received from the market over the time. The chances of instability of price for king Chilli are high because of their delicate, perishable and seasonal nature, changing climate condition and disordered market system.Fluctuations in market arrivals largely contribute to the price instability of the produce (Bhavani Devi *et al*., 2016).Similarly, the production and price instability goes hand in hand as any fluctuation in supply inevitably result in serious price instability in the world market (Yap, 1997). These instability often leads to financial risk , especially for small and marginal farmers.

Causes of production instability

- Poor climate condition- Climate plays an significant role for better harvesting (Theunuo, 2024) as king Chilli plant is easily affective to climate - variation, as the rainfall requirements for cultivation range from 1200 to 4000 mm per annum. Water logging even for a short duration causes leaf yellowing and shedding (Rishabh Kumar Singh, 2024).Changing climate is a threat for farmers as heavy raindrops can ruin their sensitive plants and interrupt plants growth.
- Pest and disease attack- This crop is very sensitive to water logging and can tolerate water stress better than standing water which results into many soil born diseases. Other challenges for Chilli farmers are the attack from pest and disease like whitefly, aphids, thrips, mites, heliothis, dieback, damping-off, CMV, powdery and downy mildews (Saima Arain, 2019)
- Poor protection measure- Since farmers are mostly uneducated and poor, they lack the required skill,resources and awareness about bio fertilizers, minimum support prices (S. Mahendra Dev, 2012) and pest and disease control. Here comes the need for giving training on improved agricultural practices to increase their production.
- Post harvest management- Chilli has short shelf life of 3 to 5 days and deteriorates fast if stored under normal conditions for a long period due to its delicate nature and high- water content. However, in cold storage the product may be stored for 8-10 months. (Malakar *et al*., 2019) . The lack of proper storage facilities and processing unit like cold storage, Chilli dryer can lead to significant post-harvest loss.
- Poor infrastructure- Lack of adequate infrastructure including road condition, transportation, market access and proper storage facilities hinders farmers from selling there produce to larger market and compelling them to sell in local markets in a much lower rate which leads to a great extent of production losses.

Causes of price instability

- Seasonal variation- Throughout the year, prices of king Chilli changes depending on the supply and demand. Mostly during off -season price are highest when supply is limited during harvesting period from May to September when surplus make market entry.However, the price of green King chilli varies seasonally, ranging from a reasonable Rs.300-400/kg during the season to higher prices (Rs.600-800/kg) in the off-season (Rishabh Kumar Singh, 2024)
- Limited market access- Farmers residing in remote areas and poor road condition hinders them from accessing larger market , compelling them to sell their produce to intermediaries (wholesaler, retailer) in a much lower rate.
- Predominance of market intermediaries- In some cases due to lack of structured market farmers are selling directly to intermediaries or retailers who often earn excessively higher than growers.
- Storage facilities- King chilli has highly perishable nature and has short shelf life of about 3-5 days as a result of which considerable post-harvest losses are incurred (Rishabh Kumar Singh, 2024) and limited storage facilities like cold storage leads to declining of quality which influence pricing of the produces.
- Changing demand- Since the demand for king Chilli is often changing in both national and international markets it affect the pricing level. Despite, king Chilli global attention for its unique taste, aroma, flavor and pungency(Malakar *et al*., 2019) has increased demand but change in consumer taste and variation in market trends impact farmer's income stability.

Challenges in king Chilli cultivation and marketing

Cultivating and marketing of king Chilli undergoes numerous connected challenges which restricts the crop cultivation in spite of its high economic and cultural significance. Specific agro-climatic conditions are required to grow king Chilli as the rainfall

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requirements for cultivation range from 1200 to 4000 mm per annum (Rishabh Kumar Singh, 2024).However, with adverse climatic condition like downpour, flood and temperature variation frequently influencing its stages of growing, blooming and bearing fruits. Farmers also comes across numerous incidence of pest and disease like whitefly, aphids, thrips, mites, heliothis, dieback, damping-off, CMV, powdery and downy mildews (Saima Arain, 2019).The lack of access to good quality or certified seed and resources further accumulate the problems leading to low viability and production. Majority of the king chilli farmers of the region depend on indigenous or local knowledge for sustainable farming systems, but the use of such primitive skills by the farmers, has not substantially helped to improve yield (Kumar Jha, 2020).Furthermore, king Chilli cultivation demands high labor for transplanting, weeding and harvesting which add up the total cost of cultivation and make large- scale cultivation less appealing.

In marketing of king Chilli farmers come across multiple challenges which impact their income . One of the serious concern include changing market price as the seasonal nature of agricultural production itself leads to price fluctuations (Bhavani Devi *et al*., 2016). The lack of regular market body force the farmers to sell their products to local dealer and intermediaries at low price. Since king Chilli possess the highly perishable nature, the lack of proper storage and infrastructure including road connectivity and transportation contribute to significant post - harvest losses and decline in crops quality . Lastly, there is a lack of value addition like making Chilli powder, dry Chilli, pickle, sauce etc. due to lack of technical knowledge, processing unit and branding and packaging which has the potential to improve higher income.

Statement for the problem

King Chilli mostly known for its extreme spices and increasing market demand, has notable economic significance in Assam. In spite of ideal agricultural climate and increasing demand, production and marketing of king Chilli remain underdeveloped. Farmers are facing challenges like lack of knowledge and low productivity, pest and disease attack, lack of quality inputs, and lack of storage and processing unit. Other marketing challenges include changing prices, existence of intermediaries, lack of structured market and value addition reducing the growers profit.

Causes of price instability

- Seasonal variation- Throughout the year, prices of king Chilli changes depending on the supply and demand. Mostly during off -season price are highest when supply is limited during harvesting period from May to September when surplus make market entry.However, the price of green King chilli varies seasonally, ranging from a reasonable Rs.300-400/kg during the season to higher prices (Rs.600-800/kg) in the off-season (Rishabh Kumar Singh, 2024)
- Limited market access- Farmers residing in remote areas and poor road condition hinders them from accessing larger market , compelling them to sell their produce to intermediaries (wholesaler, retailer) in a much lower rate.

OBJECTIVE

- To examine cost of cultivation for king Chilli cultivation
- To study marketing practices adopted by farmers
- To identify the challenges faced by farmers in production and marketing of king Chilli

RESEARCH QUESTION

- What is the cost of cultivation involved in the king Chilli cultivation?
- What marketing practices are adopted by farmers for king Chilli?
- What major challenges do farmers face in the production and marketing of king Chilli?

RESULTS & DISCUSSIONS

Farmer's Landholdings and Cultivation Details:

Table 1.shows key details on landholding size, land area used for cultivation, years of experience and land ownership. This information helps to understand the level of farming and importance of king Chilli as primary livelihood source.

Table 1: Farmer's Landholdings and Cultivation Details

Factors	Category	Frequency	Percentage
Land holding size	Landless Farmers (below 3.75 bigha)	10	16.7
	Marginal Farmers (3.75 -7.50 bigha)	27	45.0
	Small Farmers (7.50 – 15bigha)	19	31.7
	Big Farmers (15 bigha and more	14	6.7
Land area used for KingChilli cultivation	below 3.75 bigha	13	21.7
	3.75 –7.50 bigha	15	25.0
	7.50 -15bigha	17	28.3
	15 bigha and more	15	25.0

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Years of Cultivation	Less than 5 years	19	31.7
	5-10 years	41	68.3
Land ownership for Chilli cultivation	Leased in Land	34	56.7
	Owned Land	26	43.3
King Chilli is primary income	Yes	41	68.3
	No	19	31.7

The data revealed that 16.7% of the respondents are landless farmers and large proportion of respondents (45%) are marginal farmers, making it the most common landholding group and about 31.7% of respondents are classified as small farmers, while only 6.7% of respondents are classified as big farmers. In terms of land area used for cultivation, 21.7%of the respondents are cultivating below 3.75 bigha, while 25.0% of respondents are cultivating in the range of 3.75-7.50 bigha, followed by 28.3% of respondents are cultivating in between 7.50-15 bigha. Only 25%, farmers are cultivating in 15 bigha and more, indicating equal participation from all type of farmers. Most of the farmers (68.3%) have over 5-10 years of experience in king Chilli cultivation, suggesting it as a well-established practice. 56.7% farmers use leased land, reflecting lack of land security. Over 68.3% of farmers consider king Chilli as their primary source of income, highlighting its economic importance in the region.

The average land holding under King Chilli cultivation is 27.2 bigha for big farmers, followed by 12.7 bigha, 4.9 bigha and 2.5 bigha for small, marginal and landless farmers respectively.

Average Annual income from king Chilli cultivation:

The average annual income from king Chilli cultivation of the farmers' families is shown in Table 2.

Table 2: Average annual income from kingChilli

Average annual income from kingChilli	Frequency	Percent
90,000- 1,00,000	11	18.3
1,00,000-1,10,000	17	28.3
>1,10,000	32	53.3

The table shows that a majority of the respondents (53.3%) earned more than Rs 1,10,000 annually from King Chilli cultivation. About 28.3% earned between Rs1,00,000-Rs 1,10,000, while 18.3% earned Rs 90,000-Rs1,00,000 per year. The findings indicate that King Chilli cultivation is a profitable source of income for most farmers and plays an important role in improving their livelihood and economic status in the study area.

King Chilli Production:

The data shown in Table 3 revealed that 30 (50.1%) farmers are producing between 10-50 quintal, 12 (19.9%) of the farmers produced between 51-100 quintal, and about 10 (16.6%) produced between 101-150 quintal, while only 2 (15.2%) of the farmers are producing between 151 and more quintal. This indicates that the majority of farmers are predominantly small to medium in scale, with small number of farmers achieving high level of output.

Table 3: Production in quintal

Production	Frequency	Percentage
10-50	30	50.1
51-100	12	19.9
101-150	10	16.6
151-200	2	3.4
201-250	2	3.4
251-300	1	1.7
Above 300	4	6.7

Average selling price and mode of selling:

The average selling price distribution and mode of selling for king Chilli cultivation is shown in Table 4.. It provides an overview of the price margin in peak season and off season and selling mode adopted by farmers for king Chilli.

Table 4: Average selling price and mode of selling

Factors	Price realization (Rs)	Frequency	Percentage
Average selling price in peak season	Rs 100-250	3	5.0
	Rs 251-400	34	56.7
	Rs 401-550	3	5.0
Average selling price in off season	Rs 401-550	3	5.0
	Rs 551-700	17	28.3
Selling mode	Middleman	60	100.0

The data revealed that a dominant share (56.7%) of the farmers sold their produce in Rs 251-400 during peak season, and over 28.3% of farmers sold in Rs 551-700 during off season, indicating high price variation between peak season and off season. In terms of selling mode, 100.0% of the farmers sell their produce to middleman, reflecting dominance of middleman in the study area.

Perception of the farmers towards price, transportation, govt. awareness towards king Chilli cultivation:

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Table 5. presents the perception of farmers towards price, transportation, and govt. awareness towards king Chilli cultivation.

The data revealed that 100% of the respondents faced price fluctuation, making it as a universal problem for all type of farmers. In terms of fair prices and price determination, 100% of the respondents reported that none of the farmers received fair prices for their produced, as prices are determined by middleman, indicating limited direct market access for farmers. In terms of transportation, 100% of the respondents have access to transportation with 93.3% relying on hired transportation. In terms of schemes awareness, a dominant share of the respondents 98.3% reported they lack awareness on government schemes, highlighting a significant gap in the flow of information between government agencies and farmers.

Table 5: Perception of the farmers towards price, transportation, govt. awareness towards king Chilli cultivation

Factors	Category	Frequency	Percentage
Price fluctuation	Yes	60	100.0
Fair prices for the produces	No	60	100.0
Determination of selling price	Middleman	60	100.0
Access to transportation	Yes	60	100.0
Type of transportation used	Owned	4	6.7
	Hired	56	93.3
Awareness of govt schemes for king Chilli	Yes	1	1.7
	No	59	98.3

Major Challenges faced by Farmers:

Table 6 highlights the major challenges encountered by farmers in the king Chilli cultivation.

Table 6 : Major challenges face by Farmers

Major challenges	Frequency	Percentage
Lack of financial support	35	58.3%
Price fluctuation	51	85%
Market access difficulties	47	78.3%
High transportation cost	25	41.7%
Changing weather	35	58.3%
Limited storage facilities	14	23.3%
Others (specify)	Nil	Nil

Table 6 shows that majority of the farmers face challenges such as price fluctuation (85%), market access difficulties (78.3%), (58.3%) face lack of financial support and changing weather. Few farmers reported high transportation cost (41.7%), and limited storage facilities (23.3%), indicating that price and market access are the most pressing issues.

Average Cost of Cultivation in king Chilli (Rs per bigha):

Table 7 presents the cost of cultivation and income from king Chilli in per bigha. It provides insights into the cost of cultivation and profitability of king Chilli farming according to per bigha.

Table 7: Average Cost of Cultivation in king Chilli (Rs per bigha)

SI NO	Item	Labour	Unit	Total Cost
1	Land preparation	5-man days (Owned labour) 10-man days (Hired labour)	Rs 400/ MD	6000.00
2	Farm mechanization	LS	Rs 1200	1200.00
3	Cost of seeds	LS	Rs 1100	1100.00
4	Cost of seedlings	1350 No	Rs 5 per seedlings	6750.00
5	Planting cost of labour	1-man days (owned labour) 4-man days (Hired labour)	Rs 400/ MD	2000.00
6	Cost of fertilizer	LS	Rs 1500	1500.00
7	Interculture operation	5-man days (Owned labour) 10-man days (Hired labour)	Rs 400	6000.00
8	Cost of irrigation	LS	Rs 1500	1500.00
9	Cost of harvesting	4-man days (Owned labour) 20-man days (Hired labour)	Rs 300	7200.00
10	Rental value on land	LS	Rs 3000	3000.00
11	Cost of plant protection	LS	Rs 2500	2500.00
12	Cost of transportation	LS	Rs 1200	1200.00
13	Total cost of cultivation			39,950.00
14	Production per bigha	6 Quintal	Rs 19,000/quintal	114,000

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Cost A -Rs 30150
Cost A1 – Rs 3000
Cost A2 – Cost A (Rs 30150) + Owned labour (Rs 5600)=Rs35750
Cost B –Cost A (Rs 30150) + Rental value on land (Rs 3000) =Rs 33150
Cost C- Cost A (Rs 30150) + Rental value on land (Rs 3000) + Owned labour (Rs 5600) + Transportation (Rs 1200) =Rs 39950

The Table 7 presents a detailed breakdown of the average cost of cultivating of king Chilli per bigha. From the data, the total cost of cultivation is estimated at Rs 39,950 per bigha, which includes both operational and fixed costs.

A closer look at the cost components shows that labour cost is the most significant expense (39.05%). Activities such as land preparation, planting, intercultural operations, and harvesting together require a large number of man-days. In particular, hired labour (Rs 15,600) contributes a major share compared to own labour (Rs 5,600), indicating a strong dependence on external labour in Chilli cultivation.

Another important cost component is seedlings (Rs 6,750), which is relatively high compared to seeds (Rs 1,100). This indicate that farmers prefer purchasing seedlings from the reputed nursery to ensure better survival and quality. Similarly, fertilizer (Rs 1,500), irrigation (Rs 1,500), and plant protection (Rs 2,500) costs reflect the need for proper crop management to maintain productivity.

The cost of harvesting (Rs 7,200) is also quite high, showing that this crop is a labor-intensive crop and requires significant effort. Additionally, farm mechanization (Rs 1,200) and transportation (Rs 1,200) add to the overall expenses, though their share is comparatively smaller.

Fixed costs such as the rental value of land (Rs 3,000) also contribute to the total cost, making cultivation more expensive for farmers who do not own land.

In terms of returns, the table shows that the average yield is about 6 quintals per bigha, and with average market price of Rs 19,000 per quintal, the gross income comes to Rs 1,14,000 per bigha. This indicates that despite the high cost of cultivation, king Chilli farming is highly profitable, with a substantial margin between cost and returns.

CONCLUSION

1. From the present study following conclusion can be drawn
2. Productivity follows a particular trend as it was the highest during off season and least during the peak season.
3. From the study, King Chilli was found as one of the most cost intensive crops. The highest cost was incurred in harvesting, interculture operation, cost of seedlings and hired labour.
4. It was found that soon after the harvesting, King Chillies were sold to avoid loss due to high moisture content in the fruit.
5. From the study, domination of middlemen was found during both the peak and off season.
6. The study revealed that price fluctuation and limited storage facilities as the major constraints in production and marketing of King Chilli respectively.

SUGGESTIONS

Examining the constraints noted in the study area, following suggestions can be drawn:

1. The growers may be advised may be advised to form EPO/FPC (European Patent Office & European Patent Convention) in order to avoid fluctuation of prices as well as price support mechanism.
2. Farmers may be encouraged for export of their products to others state/ countries through APEDA/NAFED (Agricultural and Processed Food Products Export Development Authority & National Agricultural Cooperative Marketing Federation of India).
3. Mechanization of some farm operation should be encouraged to reduced labor cost and improve operational efficiency.
4. Attempt should be made for post- harvest management to avoid losses and glut in the market.
5. Forward contract may be encouraged for assured sale at pre agreed price.
6. Cooperatives should be formed to facilitate direct marketing in order to avoid exploitation by marketing middlemen.

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