

## **Ginger Cultivation In Umroi, Ri Bhoi District, Meghalaya**

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**Abstract:-** Ginger is a traditional crop in Umroi. It is cultivated on slopes, the most popular varieties that are grown in Umroi is Nadia and Wynad. Ginger Cultivation is done using traditional method; they include digging spade (*Mohkhiew*), dao (*wait*), and hoe etc. Ginger attains harvest maturing in 8-9 month. The area under ginger in Umroi is 885 ha which gives total production of 7346 tonnes. Farmers are interested in cultivating ginger as soil; climate and other ecological factors favour the growth and development of ginger crop in Umroi. Ginger is a seasonal cash crop in which the parent rhizomes is collected and dug in the months of June – July and the daughter rhizomes is collected in the month of November – December. In this sense, it reflects irregularity of incomes generation of the people of the study area. Incomes generated from ginger cultivation are only during the months of collection of parent and daughter rhizomes. Ginger can be cultivated by intermixing with any other crops in the same raise ginger beds. Both parent's rhizomes and daughter rhizomes can be sold. Being a non-perishable crop it gives high economic returns as ginger is grown without any application of manures, fertilizers, insecticides etc.,

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### **I. INTRODUCTION:**

Ginger is one of the earliest-oriented spices known (Purseglove et al., 1981). The economic part is the underground rhizomes, which is pungent and aromatic and used for culinary purposes in ginger bread, biscuits, cakes, puddings, soups and pickles. Ginger is trade in three basic forms- green (fresh), pickled or preserved and dry. Only dry ginger is regarded as spices, green or fresh ginger is considered basically as vegetables.

Ginger belongs to *Zingiberaceae* family and is originated from South-East Asia. Tropical areas having high rainfall and hot and humid weather conditions are favourable for Ginger. The name 'ginger' is derived from the Sanskrit word '*Srngaveram*' which means 'horn root'. For over 5000 years ginger has been recognized as the "universal medicine" by India. Today ginger remains a component of more than 50 percent of the traditional herbal remedies and has been used to treat nausea, indigestion, fever and infection and to promote vitality and longevity.

### **II. STATEMENT OF THE PROBLEM:**

Being rural, with low skills and educational attainments, the peoples are bound to live and depend on agriculture as their source of livelihood. Agriculture is not just an occupation; it is the sole means of survival. Farmers grow gingers on small plots of land to support their families and those in their local community. However the economic returns from ginger cultivation are not adequate for the farmers to lead a healthy economic condition. It is tough for small farmers to make a good living depending on the small incomes they get from ginger production. The study area (Umroi) is close to the daily market Bhoirymbong a market centre where middleman from various areas come to the market and buy agricultural products to trade them to distant places like Assam. Ginger cultivation is the main preferred occupation of the villagers of Umroi area. Majority of the population in the study area engaged in ginger cultivation. Therefore, it is essential to examine ginger cultivation and its contribution to the lives of the people in term of household income and investigate into how and why rural livelihoods is influenced by ginger cultivation although low in returns but the preferences for livelihood sustenance.

### **III. OBJECTIVES:**

The main objective of this paper was-

- To study the importance and preference of ginger cultivation in the study area

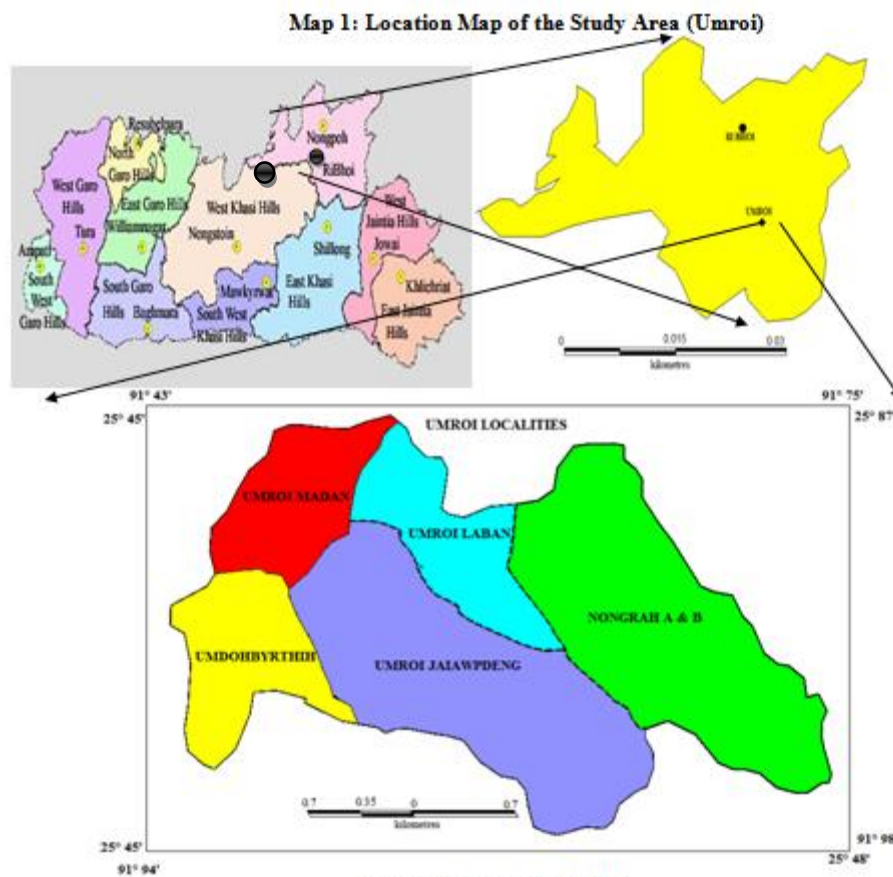
#### **Study Area:**

Umroi is located in Ri-Bhoi district, which was carved out from the erstwhile East Khasi Hills District, Meghalaya. It is located at about 35 km from Shillong and lies between 25° 43'N to 25° 43'N latitudes and 92° 0' E to 92° 0' E longitudes. Umroi is under Umsning Community rural Development and Rural Development Block, Ri Bhoi District.

As per 2011 census, Umroi had of population of about 8198, Umroi experiences different types of climate ranging from tropical climate to sub-tropical climate. Normally January and August record minimum (12.3°C) and maximum (35.2°C) temperatures respectively. The average annual rainfall of 11 years (2000-2011) in the village. The area has a good transport system of road network with the newly construction of Shillong bypass road. Umroi is well connected by the adjacent towns and city Shillong.

**Choice of the study area:**

Umroi area is dominated by ‘bhoi’ people who are engaged in agricultural activities. This area has favourable climate, soil and physiography required for the growth of ginger cultivation. As the people in general are poor with low educational attainments, unskilled and unemployed and hence they are forced to live and depend on agriculture i.e. mainly ginger cultivation as their main source of livelihood. Although, the economic returns from ginger cultivation are not adequate enough to lead a good economic life. Thus it would be appropriate to take up such area for the study in order to understand the main reasons for their economic backwardness.



**Data Source:**

In this study, interview schedule was used to collect data on the patterns of rural livelihood and ginger cultivation in Umroi by taking all the localities of Umroi (i.e. Nongrah A & B, Umroi Jaiawpdeng, Umroi Laban Saro, Umdohbyrthih, and Umroi Madan)

For this study both primary and secondary data was used. Primary data are obtained additionally from household survey through key informant interviews, focus group discussions and interviews of the local people. Secondary data and information was collected from sources, like ICAR(Indian Council of Agricultural Research), Department of Horticulture, Directorate of agriculture, census publications, district handbooks, books and many others journals.

The total number of 5 localities was used for the survey as Umroi areas have five localities in total. From a list of all household, a random sample of 50 households from each localities representing ginger farming population is drawn.

The primary and secondary data was computed with the help of simple statistical and quantitative techniques.

#### IV. METHODOLOGY:

The present study has been understand in three stages viz (i) pre field work (ii) field work, and (iii) post field work.

➤ **Pre-field work:**

It consisted of a brief survey of literature to conceptualize the problem of research here emphasis was given on the reading of several related books, journal / articles, Reports from Ginger cultivation in Ri Bhoi district, Meghalaya related governments reports and from related website etc,

➤ **Field work:**

The methodology for primary data collection is as follows: - both quantitative and qualitative data on the problems and prospects of ginger cultivation have been generated by the help of focused group discussion with the experts on ginger from ICAR and Ginger Farm Station Umsning, ginger cultivators and the village elders of the selected five localities of Umroi viz Umdohbyrthih, Umroi, Madan, Umroi Labansaro, Umroi Jaiawpdeng, and Umroi Nongrah A and B.

➤ **Sample design and sign:**

The data for the paper was collected through semi structure schedules by the help of random sampling techniques. The sample size was 50 households from each localities of Umroi

➤ **Post field work:**

Simple calculation has been used for analyzing the data collected and for realizing the above mentioned objective.

#### Ginger Cultivation in Umroi:

Ginger is a traditional crop in Umroi region where it has been cultivated from ancient time. Due to wide variation in climate, topography, soil characteristic and preference, have resulted in evolution of multitude of local cultivars'. The local cultivars is popular or based on tuber morphology for example *syngbah* as 'Wynad', and *syng Ladia* or *Syng Assam* as 'Nadia' is a local cultivars from Assam

The quality parameters of ginger grown in Umroi are given in table:

**Table 1** :Size and average yield of different Variety of Ginger

Characters	Nadia Variety ( <i>Syng Assam/Syng Saw</i> )	Wynad( <i>Syngbah</i> )
Rhizome Size	Medium	Large
Seed rate(q/ha)	12	15
Average yield(q/ha)	175	160

*Source: Ginger farm Station Umsning office of the Block Development Officer*

In Meghalaya, ginger is cultivated on slopes the most popular varieties that are grown in Umroi is Nadia and Wynad. Nadia is popular due to its low fiber content.

#### Process of Ginger cultivation in Umroi:

The whole operation starts at the fall of winter at first, a suitable plot of land is selected on a hill slope or steep slope in the month of December to January (*prat synrum*). After selecting the plot, trees, bamboos and other plants and shrubs are cleared. As the month of February and March are rain free the rubbishes are left for getting dried up under the hot sun and in that way it is made free of moisture. The second phase of operation falls in the month of April (*Thang Synrum*) means the setting of fire to these rubbishes. The burning done mostly in the late afternoons and it continues up to midnight. The burnt trees, branches of trees, logs are transformed into ashes which acts as a manure mostly of the kind of potash. In the later way, the jungle rubbishes could have been turned into organic manner. The third phase is waiting for the rain, in the month of May and June; the plot of land is made free from the debris and heavy logs (*puh ram*). In monsoonal rain, the soil is made soft and muddy. Digging Spades and hoes are used to dress up the field at that time. Ashes are scattered over the whole area and as soon as rain start, seeds of various types of crops and mainly ginger are broadcast over the ashes. The Bhoi of Umroi use to cultivate ginger by intermixing it with other types of crops in the same raising beds and in the same plot of land.

The fourth phase is the seeding i.e. planting of ginger rhizomes seeds (*thung syng*). After 2-3 weeks when the ginger rhizomes seeds started sprouting out, the weeds also start growing. The weeding (*thiew kynbat*) operation takes places in the month of June to July; it is done two or three times in a year depending on the growth of weeds. In the periods of late July to early August, the parent rhizomes are dig and collected (*khloit*

*syng tymmen*). Then it is followed by earthing up of the soils by adding more soils to the raised ginger beds (*Ai Khyndew syng*) then it is left freely for its fully matured growth up to the month of November – December, in the month of November and December the ginger is harvested by digging it.

#### Tools and implements used in ginger cultivation:

Tools and implements used for the purpose of ginger cultivations used for the purpose of ginger cultivation are very simple and traditional method; they include digging spade (*Mohkhiew*), dao (*wait*), and hoe etc. In the past peoples shifted their place of dwelling frequently in search of lands but today with the increasing numbers of population and small landholding size the area extent of ginger cultivation has been reduced.

#### Production practice

Farmer generally uses their own preserved seeds (rhizomes) for cultivation purposes. The seed rate varies from 1MT to 1.5 MT per ha. Sowing is mainly carried out in the month of April-May in the region and harvesting starts from November and goes up to January. Use of chemical fertilizers, insecticides/ pesticides or weedicides is not practiced by the farmers in the region. The farmers usually spread the straw, grasses and other plant residues on the ginger beds immediately after planting this acts as mulch which protects the seedlings from rain, prevents weed growth, keep the soil moist and soft and accelerates plant growth. The crop is monsoon dependent, weeding is mainly done manually by the farmers during the entire season from May to January, labour is employed for land preparation intercultural operations and harvesting the labour mandays used for ginger cultivation in 1 ha area range from 250-300, the rate of male labour is 300 per day, while a female labourers charges Rs 250 per day.

#### Post harvest practices

➤ **Harvesting:** Ginger attains harvest maturing in 8-9 month hence, the peak harvest start from Nov and extends till Jan. On an average, 8-10 MT of ginger is harvested from a hectare. Ginger attains full maturity in 210-240 days after planting. Harvesting of ginger for vegetable purpose starts after 180 days based on the demand. However, for making dry ginger, the matured rhizomes are harvested at full maturity i.e. when the leaves turn yellow and start drying. The rhizome clumps are lifted carefully with a spade or digging fork. The dry leaves, roots and soil adhering on the rhizomes are manually separated. Late harvest is also practiced, as the crop does not deteriorate by leaving it for some months underground. In Umroi, domestic market prefers fresh green ginger for culinary use while two types of dried ginger i.e. bleached and unbleached are produced for export purpose. The most important criteria in assessing the suitability of ginger rhizomes for particular processing purposes is the fibre content, volatile-oil content and the pungency level. The relative abundance of these three components in the fresh rhizome is governed by its state of maturity at harvest.

#### Ginger Production in Umroi:

The area under ginger in Umroi is 885 ha which gives total production of 7346 tonnes. This shows that farmers are interested for the cultivation of ginger as soil, climate and other ecological factors favour the growth and development of the crop and there is a tremendous scope to increase the yield per unit area and thereby the total production of ginger in Umroi

**Table 2: Ginger Production**

Localities	Total Production (in Quintal/ Year)	Average Production (in Quintal/ Year)	Highest Production (in Quintal/ Year)
Umroi Jaiawpdeng	57	5.23	10
Umroi Madan	23	1.62	2
Umroi Labansaro	30	2.98	5.5
Umroi Nongrah	13	1.98	1.5
Umdohbyrthih	10	1.54	1.2

Source: Field Survey, 2015

The compilation of the data from all the five localities of Umroi gives an exemplary insight on the potentials of the farmers in the study area in the production of ginger crops. From a total of 250 sampled ginger households Umroi Jaiawpdeng has the highest total production of ginger in Quintal/year i.e. about 57 among all the five localities of Umroi. Hence the overall average production is as high as 10.31 Quintal/year.

#### Ginger Collection Period:

As shown in the table below, ginger is a seasonal cash crop in which the parent rhizomes is collected and dug in the months of June – July and the daughter rhizomes is collected in the month of November – December when the crop is fully mature.

**Table 3: Ginger Collection Period**

Village	% HH Collecting Ginger	
	Parent Rhizomes	Daughter Rhizomes
Umroi	June- July	Nov-Dec

Source: Ginger farm Station Umsning office of the Block Development Officer

Further, the contribution of ginger cultivation to household incomes/rural livelihood is being augmented by the fact that ginger is a seasonal product. In this sense, it reflects irregularity of incomes generation of the people of the study area. Since daughter rhizomes ginger is crops which is collected and dig in the months of November to December and its parent rhizomes is collected and dig in the months of June -July, it signifies that incomes generated from ginger cultivation is only during the months of collection of parent and daughter rhizomes.

#### Preferences for Ginger Cultivation and advantage of ginger over other crops:

Ginger is the main cash crop for Umroi and has good demand in domestic as well as international markets. It is cultivated in sloppy tracks through indigenous method of practices (making *bund*, a raised bed along the slope) and is subjected to very high uncertainties. In spite of high uncertainties, ginger continues to be a highly preferred cash crop for this region, because (i) it helps the farmers through supplementing the day-to-day cash requirement throughout the year, (ii) it is easy to store underground, and (iii) it is not perishable in nature like other vegetable crops such as tomato, brinjal, capsicum, etc. The unit cost of production of ginger is Rs 15per kg only, while its retail price ranges from Rs 40-60 per kg in the domestic market.

Clearly, ginger has the comparative advantage to be grown in this region. Ginger is a commercial crop which can be cultivated by intermixing with any other crops in the same raise ginger beds. The preference for ginger cultivation is rather high than other crops, because ginger crop is a propagated commercial crop in which both parents rhizomes and daughter rhizomes can be sold and it has an advantages as it saves human labour and it require less care during its growing stage. Ginger is a crop which rarely bears seeds like other types of crops and most important when the ginger crop is fully mature it can be sold at good and higher price as compared to other crops. Ginger is a type of crops in which the farmer of Umroi gets good return with less expenditure on cultivation of the crops. Being a non-perishable crop it gives high economic returns as ginger is grown without any application of manures, fertilizers, insecticides etc, in Contrast to this, other crops and vegetables gave them low return with huge expenditures during the times of growing i.e. on buying of HYV seeds, insecticides, pesticides, fertilizers and manures etc. Vegetables being a non perishable and FCMG<sup>1</sup> crops it give good economic returns if only it reaches the market in time.

**Table 4: Production of Crops**

Name of the Crops	Area in hectares/Production in tons (2015)
Ginger	885/7346
Sweet Potato	43/245
Other crops	
1. Tomato	99/1485
2. Capsicum	81/640
3. Cabbage	32/643
4. Cauliflower	14/42
5. Broccoli	21/166
6. Beans	60/318
7. Strawberry	31/294
8. Radish	1.9/38
9. Carrot	6/73

Source: Ginger farm Station Umsning office of the Block Development Officer

As we could see from the table ginger is the only crops which is produced and cultivated in a large area and showing the largest production/ area as compared to any other crops. Though some other types of vegetables and livestock rearing has been practiced but only a small amount of production they are able to reap from them as they are meant only for subsistence purposes. From the table we can see that in 885 hectares of area ginger crops is produced to about 7346 tons annually, whereas there are many other crops such as sweet potato is produced about 435tons in 43 hectares of land. Tomato is produced about 1485 tons in 99 hectares of land annually. Capsicum, cabbage, Cauliflower, broccoli, beans, strawberry, radish and carrot etc are also grown

<sup>1</sup> FCMG ( Frequently Consume Marketed Goods)

by the ginger growers of Umroi, but these crops/ vegetables are grown as substitute's crops for both families consumption and for selling. These crops are grown in small quantity in small hectares of land with smaller return of yield as compared to that of ginger. Ginger which is a cash crop is easier to cultivate and required less fertilizers as compared to other types of vegetables.

Some of the respondents during the field investigation with the ginger growers of Umroi were of the view that they grow ginger crops every year without spending much of their expense for cultivation of ginger, while they have to spend much for growing other types of crops and vegetables as these crops require much fertilizers and manures and cares especially in their initial stage. The respondents also report that because of the various reasons discussed above they prefer ginger crops than other crops as ginger is the only crops which is grown solely only for commercial use and not for self- consumption.

**Marketing aspects of ginger:**

In Umroi area, there is normally no intervention in ginger market from the government side with regard to marketing of reasonable price to farmer. Farmer has to sell their products to the nearest merchant, buyers, village shop (Bhoirybong) or to markets such as that of Guwahati

- **Value addition at farm level-** Farmers carry out the manual grading of rhizomes based on size (small, medium and large) price of rhizomes varies with size. Most of the farmer sells the produce to the middleman or aggregator or the trader from the distant market in the village itself. The rhizomes are packed in gunny bags of size 40kg which costs the farmer Rs.1500-2000 per gunny bags
- **Marketing and logistics:** The marketing channels by the farmers are as follows

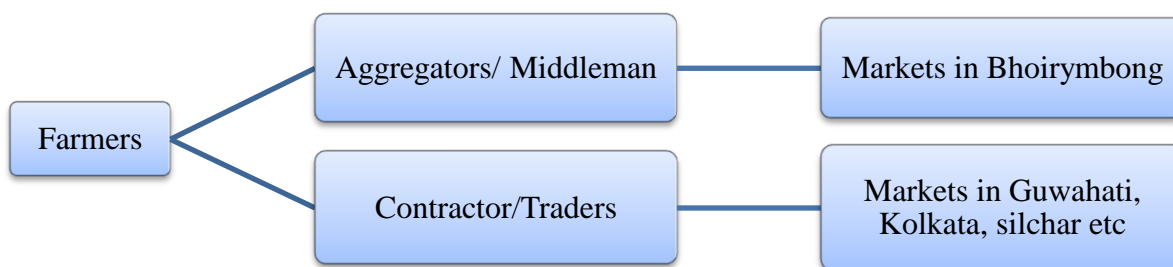
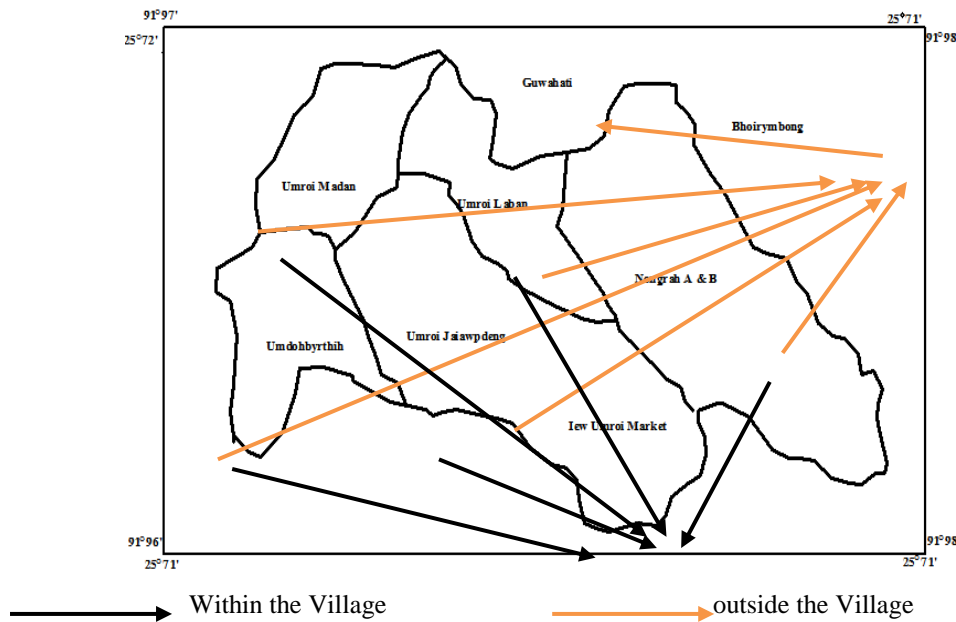


Fig 3.2: Marketing channel of ginger in Umroi (Rs 15/kg)

Ginger cultivation is mainly carried in the study area for commercial uses. Only a little quantity is saved for subsistence uses. The farmer sell the ginger loose on the type of rhizomes size; small rhizomes for Rs 10-20 per kg, medium sized for Rs 20-30 per kg and large seized rhizomes for 30-40 per kg. The average price offered by the local traders/ brokers varies from region to region. At the same time the price of the products depend on the quality of the products.

The farmer sells their produce to the local traders in Bhoirybong daily market. Who then sold to the middleman carries the produce to the main market where it is sold to the wholesaler who again further sells it to the retailer. The traders from other states i.e. Guwahati come to the farm gate to collect the produce to carry the ginger to their respective markets, and in the stage to sell it to the wholesalers and retailers the transportation of 1 gunny bags full of ginger from the village to Bhoirybong main market by taxi/sumo fares varies between Rs 30-40 depending on the distance

Map 2: Market Channels of Ginger from Umroi to various markets



**Market prices:**

The market prices of ginger in the study area vary according to the quality of the products. The ginger products from ‘*Sying Assam*’ variety at present is observed to receive higher prices per quintals/tons than of ‘*sying bah*’ variety. The reasons for this is because many of the producers who continues to cultivate ‘*sying bah*’ use rhizome seeds which is of very old rhizomes which has been cultivated for so many years back and reproduced again and again, which in return gave them small returns of ginger crops with low quantity. This has led to the degeneration in the quality of the products which result into the low selling prices. Whereas the variety of ‘*sying assam*’ which is mainly a newly brought variety to the region gave huge and large size ginger with good amount of yield and with good weight quality gingers. However, the prices of both the variety are more or less the same with small difference depending on the quality of the ginger crops brought to the market. The ginger growers of Umroi sold their produce at the rate of Rs 15/ Kg at Bhoirybong daily Market. But the prices does remain the same, it increases and decrease with time.

**Profits:**

Taking into consideration the above markets price of ginger cultivation and their respective cost of production procured the households of different production groups is derived. With the data compiled regarding the average market prices of ginger by the producers and the average production costs per quintals of ginger in the study area, an analysis of the profit incurred by the producers is hereby exemplified. The small gingers farmers /cultivators incurred in an average production cost of Rs.1500/40kg and sell their products at an average price of 2000/40kg. Therefore, their profit is around 500/40kg.

**Economic Cost of Ginger cultivation in Umroi:**

**Table 5:** Economic Cost of Ginger cultivation in Umroi

Sl. No.	Particular	Amount
1	Manures	0
2	Fertilizers and pesticides	0
3	Irrigation	0
4	Labour ( including family labour)	50,000
8	Average selling price (Rs Per kg)	20-25
9	Total income per ha (in Rs)	90,000-108,000
10	Net loss (Rs per ha)	11,000-39,000

Source: Field Survey (2016)

The estimated parameters indicated that as the cropped area under ginger cultivation increased, the rate of return earned on capital also increased, but subsequently started declining after some critical cropped area. This can be explained as follows: Ginger is mainly cultivated through traditional practices and is subjected to



wide yield uncertainty and in turn, to profitability. As the cropped area increases the yield uncertainties also increase because of different fertility statuses at varying slopes in the hilly tracks. Additionally, the crop management, particularly the intercropping operation becomes difficult. The human labour is the most important factor of production accounting for more than 60-65 per cent of total cost of cultivation. The size of available family labour determines the area under ginger to be cultivated. The yield uncertainty leads to higher risk in terms of lowering the rate earned on capital investment for ginger cultivation. Moreover, the price elasticity of demand for ginger is expected to be very low because the share of consumers' expenditure for ginger in total consumer basket is negligible. The producer's share in consumer rupee has been low, meaning thereby that most value-addition takes place beyond the farm gate. All these weaknesses need to be removed for making the ginger economy viable and buoyant (Datta *et al.*, 2002).

As it is seen in the table that the economic costs for ginger cultivation is quite high, the cost for manures is nil. The wage labourers cost paid to the labourers who are engaged in ginger cultivation are paid Rs 300 per day for men and Rs. 250 per day for women in which it can reach up to Rs. 50,000 annually in completing all the tasks and works require in ginger cultivation which comprise of cleaning and burning the forest in the beginning then making down of buns or ginger beds, followed by planting of ginger rhizomes seed, then when the ginger rhizomes seeds started to sprout out weeds also grows which requires weeding and cleaning etc. The average selling prices does not remain the same price it varies from time to time of which the average selling price range from Rs. 20-25 per kg. The total income from ginger cultivation may be ranging from 90,000-108,000 annually. Lastly the net loss in ginger cultivation is also high ranging from 11,000-39,000 annually which refers to loss due to rhizomes rat and rhizomes diseases and retardation of growth, low quality of gingers etc.

#### ISSUES/ PROBLEMS RELATED TO GINGER FARMING

Since cultivation of ginger farming has both direct and indirect effect on the establishment and working of herbal industry related to value addition of ginger, so it becomes important to study the problems/ issues related to the ginger farming. The problems/ issues highlighted by farmers during survey are presented in Table 6.

##### ➤ Seed/ Seedling issues

Certain issues related to seedlings were studied for ginger crop. When asked about the availability of sufficient quantity of planting material, all the farmers of ginger farms responded for the availability. 86%, of selected ginger farmers' responded regarding availability of good seed/ seedlings, availability of seed/ seedlings at reasonable price, and disease problem in seed/ seedlings in the initial stage of sowing of ginger crop respectively.

##### ➤ Input issues

Regarding know-how support from any organization, 68% of ginger farmers responded positively. All the ginger growers responded for availability of inputs (fertilizers/ chemicals), whereas regarding availability of labour, 72% responded positively.

**Table 6:** Issues/ Problems related to Ginger Farming

Issues/Problems	Response	
	Yes	No
<b>A. Seed/ Seedlings Issues:</b>		
Getting seed/ seedlings in sufficient quantity	50	0
Getting good quality seed/ seedlings	43	7
Reasonable price of seed/ seedlings	44	
Any special subsidy on seed/ seedlings	0	50
Disease problem	37	13
<b>B. Input Issues</b>		
Know- how support from any organization	34	16
Availability of inputs (fertilizers/ chemicals)	50	0
Labour availability	36	14
<b>C. Agronomic Issues</b>		
Availability of package of practices	30	20
Lack of extension training facilities	26	24
Weed problem	46	4
Insect/pest problem	22	28
Favorable Government Policies	33	17
<b>D. Marketing Issues</b>		
Marketing through middleman	17	33
Availability of regulated market	50	0
Unremunerative prices	14	36



High cost of marketing of produce	49	1
Own Means of transport	0	50
<b>E. Credit Issues</b>		
Acquired loan from bank	22	28
Lack of credit facility	21	29
Lack of cheap credit	30	20

Source: Field Survey (2016) (Figures in parentheses are percentages of the total.)

#### ➤ Agronomic issues

When asked about certain agronomic issues, 60% of ginger farmers reported that there is availability of package of practices in local language, 52% respondents were of the view that there is lack of extension training facilities, problem of weed infestation was reported by 92% respondents and 44% responded that there is insect/pest infestation. About 66% responded for favour of Govt. policies for ginger farming

#### ➤ Marketing issues

Marketing issues were also studied for ginger crop. 32% ginger growers were marketing their produce through middlemen. All the ginger growers responded positively for having nearby regulated market for ginger produce at Bhoirybong. Only 28% responded there is an un-remunerative price of produce. 98% responded that cost of marketing of produce was high as all the respondents were marketing their produce through hired means of transport.

#### ➤ Credit issues

When asked about the availability of credit, 44 % respondents said that they avail the facility of crop loan from bank and 60% responded that there is lack of cheap credit from banks for ginger farming.

#### Finding

In spite of the fact that ginger cultivation has brought in better rural livelihood there are certain problems associated and faced by the ginger growers. Both natural and human factors create hindrance to such cultivation. Great loss was reported due to rhizome rot. Managing rhizome diseases is a greater challenge to marginal and tribal farmer many farmers have given up ginger cultivation and they are still struggling to survive because of rhizome disease and absence of alternative income generating crop. Ginger is the principal cash crop grown in the study area. It is a type of crops which is susceptible to infection throughout its growing period.

### V. CONCLUSION:

The study revealed that the livelihood of the people in the study Area is directly dependent on the production of ginger crop. It not only support their rural livelihood but also represent the cultural inclinations of the people of Umroi with the increased recognition of the high commercial value of these products vast tracts of forested cover as well as agricultural, lands have been converted into ginger cultivation lands during the past few decades. This has led to a decline in the production of other important agricultural crops in the study area. It is also observed that no grants, subsidies or any aids from the government are easily available to the ginger growers in the study area. Although the input required is less and the output is reasonably high, it cannot be denied that assistance both from governmental and non-governmental agencies is definitely in great needs. This is equally important in the trade and marketing of ginger where it is always witnessed that the producers have no genuine fixture of price.

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