



TREND ANALYSIS OF AREA, PRODUCTION AND PRODUCTIVITY OF FINGERMILLET (RAGI) IN ALMORA DISTRICT, (UTTARAKHAND) INDIA

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Abstract

Ragi (Mandau) is one of the major crops of Uttarakhand. Ragi is considered to be the best rich source of calcium deficiency can be removed by including Ragi in the daily diet, which will remove bone and teeth disorders and anemia. It is more beneficial for people who have low hemoglobin levels because it is good source of iron. It helps to warm the body in cold or rainy season as it is a heating grain. Many companies have started selling its biscuits, chocolates and other products. This present study has been analysed the trend in area, production and productivity of finger millet. The study has been carried out based on secondary data and the data was collected for the periods from 2011-12 to 2020-21 from various publications and websites (Agriculture Statistics at a Glance, Directorate of Economics and Statistics, Ministry of Agriculture and Government of India 2021).

KEYWORDS: Finger millet, Uttarakhand, Adequate, Production.

INTRODUCTION

Finger millet is commonly known as Ragi in India. It is known as African finger millet and red millet are the oldest food and first cereal grain, which is used for domestic purpose. Mandua (Ragi) is one of the major crops of Uttarakhand. There has been a sharp decline in the production and consumption Of Mandua (Ragi) over the years. Ragi is used to make flour and prepare various types of nutritious dishes. It helps to warm the body in cold or rainy seasons as it is a heating grain. It has the highest amount of potassium (480mg) and calcium (344mg). It is more beneficial for people who have low hemoglobin levels because it is a good source of iron. It can be grown in a wide variety of soils ranging from rich loamy to poor shallow upland soils.



It does not require much effort. Soils with 4.5-8Ph are considered most suitable for finger millet as it grows best in it. Ragi is a rainy-season crop, which does not require much irrigation. India is the largest producer of Ragi in the world and the maximum further production is in the state of Karnataka. Millets are grown in about 21 states of India, with a total area of 2.5 million per hectare and 2.2 million tons of production in India, millet is cultivated in an area of 12.45 million hectares with a yield of 1247kg/hectare and a production of 15.53 million tonnes. Millets are the fourth most important food grain in India after rice, wheat, and maize. The popularity of this grain is increasing day by day. Efforts are being made by the local people to make it available to the people at the state, national, and international levels. It is also being supported by the government in many ways. Many companies have started selling its biscuits, chocolates and other products. Ragi is also easily available online. Ragi flour and its products are well accepted in Colombia, Kenya, Nigeria, Senegal, Srilanka and Sudan. The different types of millets grown in India are as follows:-Jowar (sorghum), Bajra (pearl millet), Ragi(finger millets), Barri (proso or common millets), Kangni (foxtail/Italian millet) and Kodra (Kodo millets) etc. Efforts should be made to educate people about flour products and its health benefits so that its production continues to increase.

REVIEW OF LITERATURE

Rachel opole (2019), “Opportunities for enhancing production, utilization and marketing of finger millet in Africa” - “It was found in this study that opportunities now exist for enhanced technology development, which may increase production, product development, value addition, marketing and consumption of finger millet in Africa. Capitalizing on these opportunities could ensure that finger millet, as a “novel” crop, increases food and nutrition security in Africa and around the world.

Salej sood, Dineshjoshi, Away kumar Chandra, Anil kumar (2019), “Phenomics and genomics of finger millet: Current status and future prospects” This study points to improvement in genome assembly and application of genomics editing in the near future to provide a wealth of information and opportunities for understanding the genetics of complex traits.

Nitin Rawat Ramgopal (2017), “MANDUA - THE HEALTHY SECRET FROM THE HILLS OF UTTARAKHAND, INDIA”. This study talks about the nutrition value of the finger millet, major health benefits. The efforts been made by farmers to promote, restore and export the millet.

Lawrence owere, Pangirayi ton goona, John derera & Nelsonwanyera (2014), “Farmers` perceptions of finger millet production constraints, varietal preferences and their implications to finger millet breeding in Uganda” The study examines the constraints faced by farmers in Uganda in millet cultivation and the limited knowledge of farmers preferences. The study incorporated participatory rural appraisal and a survey. In this, farmers reported to have developed some coping mechanism to deal with the constraints.

Pragya singh and Rita singh Raghuvanshi (2012), “Finger millet for food and nutritional security” This study talks about the nutritional benefits. Finger millet grain is highly nutritious, being richer in protein, fat and minerals especially calcium and iron compared to rice. Efforts people about nutritive value and health benefits of finger millet and its food products.

STATEMENT OF THE PROBLEM

The different problems faced by cultivators for production, harvest, storage, marketing, etc. So researcher takes these are important issues to farmer's sustainability in their field. Mandua is the main livelihood of many farmers and income-generating crops in the study area, but it has not gotten adequate attention from the responsible authorities. Hence, the researcher attempts to study the various problems faced by the farmers in the study.

OBJECTIVES OF THE STUDY

- i. To know about the finger millet (Mandua) cultivation in India and the state of Uttarakhand.
- ii. To know about the finger millet (Mandua) cultivation in Almora district, Uttarakhand.

METHODOLOGY OF THE STUDY

The study is based on secondary data. The secondary data are collected from the records of agricultural department, articles, annual statistical reports, magazine, and various journals, text book, and website, etc.

DATA ANALYSIS

Area, Production and Productivity of Finger Millet in India

Table no - 01

S. NO	year	Area(000HA)	Production(000MT)	Productivity(KG/HA)
1	2011-12	1176	1929	1641
2	2012-13	1131	1574	1392
3	2013-14	1194	1983	1661
4	2014-15	1208	2061	1706
5	2015-16	1138	1822	1601
6	2016-17	1016	1385	1363
7	2017-18	1194	1985	1662
8	2018-19	891	1239	1390
9	2019-20	1004	1755	1747
10	2020-21	1159	1998	1724

(Source- Secondary)

The Table No – 01 shows that production of finger millet in the year of 2020-2021 was 1998MT and area was 1159HA in India. It is the largest area and production between 2011-12.

Area, Production and Productivity of Finger Millet in Different States of India (2020-21)

Table no - 02

State`s Name	Area(`000HA)	Production(`000MT)	Productivity(KG/HA)
Andhra Pradesh	33	40	1197
Bihar	3	3	934
Chhattisgarh	5	2	302
Gujrat	10	13	1205
Himachal Pradesh	1	0	842
Jammu & Kashmir	0	0	0
Jarkhand	19	16	874
Karnataka	785	1370	1745
Kerala	0	0	1435
Madhya Pradesh	0	0	0
Maharashtra	82	94	1151
Odisha	41	33	796
Tamil Nadu	83	289	3481
Telangana	1	1	1343
Uttarakhand	89	130	1459
West Bengal	6	6	1073

(Source – Secondary)

The Karnataka largest finger millet producing state in India. The table No – 02 leading finger millet producing states in India. Production in million tones and area in million hectares was the year 2020-2021.

Area, Production and Productivity of Finger Millet in Uttarakhand

Table no - 03

S. No	year	Area(`000HA)	Production(`000MT)	Productivity(KG/HA)
1	2011-12	114511	160034	13.98
2	2012-13	113210	157792	13.94
3	2013-14	108656	148803	13.7
4	2014-15	107904	149033	13.81
5	2015-16	105450	148705	14.1
6	2016-17	106365	157402	14.8
7	2017-18	101504	138836	13.68
8	2018-19	94004	114457	12.18
9	2019-20	83988	120083	14.3
10	2020-21	88577	129244	14.59

(Source – Secondary)

The tale no – 03 shows that production of finger millet in the year of 2020-21 was 129244MT and area was 88577HA in Uttarakhand, which shows that after 2011-12, production of Ragi is continuously falling in Uttarakhand.

Area, Production and Productivity of Finger Millet in Uttarakhand District (2020-2021)

Table no - 04

S. No	District's name	Area(^000HA)	Production(^000MT)	Productivity(KG/HA)
	Almora	26009	31001	11.92
2	Bageshwar	6087	8129	13.35
3	Champawatt	3402	5909	17.37
4	Nainital	1200	1738	14.48
5	Pithoragar	7860	12461	15.85
6	Udhamshingnager	2	5	25
7	Chamoli	10001	16094	16.09
8	Deharadoon	458	861	18.8
9	Haridwar	0	0	0
10	Porigharwal	13514	19463	14.4
11	Rudraprag	7097	10250	14.44
12	Tihari	8116	14790	18.22
13	Uttarkasi	4831	8543	17.68

(Source – Secondary)

The table no – 04 show that during 2020-21, Almora district had the highest production of finger millet.

Area, Production and Productivity of Finger Millet in Almora District

Table no - 05

S. No	year	Area(^000HA)	Production(^000MT)	Productivity(KG/HA)
1.	2011-12	34053	43573	12.8
2.	2012-13	32971	39118	11.86
3.	2013-14	33882	39550	11.67
4.	2014-15	33569	40898	12.18
5.	2015-16	34518	41322	11.97
6.	2016-17	33588	45270	13.48
7.	2017-18	31517	34512	10.95
8.	2018-19	29569	28666	9.69
9.	2019-20	24576	30497	12.41
10.	2020-21	26009	31001	11.92

(Source – Secondary)

The table no 05 shows that area and production of finger millet in Almora district in the year of 2020-21 was 26009HA and 310001MT in Almora district. This shows that after 2011-12, production of Ragi is continuously falling down in Almora district.

SUGGESTIONS

1. Every year finger millet production is decreasing. So the government finds out problems and increases the production.
2. The storage and transport facilities should be arranged near market and production area.
3. The government should provide subsidy for cultivators.

CONCLUSION

This study has analysed the based the trend in area, production and productivity of finger millet. It was found in the data that the production of finger millet in India is continuously increasing. In 2020-21, the production of finger millet in India has been 1998MT. In India, Ragi is produced the most in the state of Karnataka. Ragi is grown in 785ha area and 1370mt 2020-21. But the production of Ragi in Uttarakhand state and Almora district is continuously falling since 2011-12. Which does not bode well for the production of Ragi. Finger millet production plays an important role in improving the standard of living in Almora district. There has been a sharp decline in the production and consumption of Ragi over the years. Thus there is need to take up production enhancing measures in finger millet like varietal improvement, improved cultural practices and irrigation facilities. Government intervention needs to focus on spreading finger millet as a wonder grain for dry lands and infant nutrition. And also government is showing the interest in its development and the proposal for the healthy operation of the cultivate system and economic development of agriculture sector. More over this sector nowadays going backward, so government should implement good plans for development of this sector.

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