



Journal of Social Issues and Development (JSID)

(Himalayan Ecological Research Institute for Training and Grassroots Enhancement
(HERITAGE))

ISSN: 2583-6994 (Vol. 2, Issue 3, September-December, 2024. pp. 50-63)

Exploration, Identification, and Nutrient Analysis of Traditional Recipes from Uttarakhand: A Culinary and Nutritional Perspective

Prabha Bisht*

ABSTRACT

The culinary heritage of Uttarakhand, despite its rich biodiversity and nutritional benefits, remains largely unexplored. The state, known for its spiritual significance and breathtaking landscapes, offers a simple, nutritious and sustainable food system that is deeply connected to its natural resources. Uttarakhand's traditional dishes use organic, locally grown ingredients like millets, pulses, vegetables, and dairy, often follow the journey from farm to plate. This natural approach makes the food rich in macro and micronutrient thus offering both flavour and health benefits.

However, the region's traditional food culture has yet to gain widespread recognition, even though it could serve as a solution to modern nutritional challenges. Despite being labeled as "superfoods" by the food industry, these dishes are not commonly featured in restaurants or popularized in mainstream culinary trends. This study explores the health, nutrition, and therapeutic aspects of Uttarakhand's traditional

*Associate Professor, Head Department of Home Science, SDMGP College, Doiwala, Dehradun (Uttarakhand).

foods, aiming to highlight their potential to improve public health.

Through fieldwork in 30 villages across the Kumaon and Garhwal regions, the study documents 50 traditional recipes, exploring their nutritional content based on the Indian Food Composition Table (IFCT) 2017. The research reveals that these recipes provide a balanced, nutrient-dense diet and can contribute significantly to modern-day health issues. The study advocates for preserving and promoting these culinary traditions, suggesting that they can play a key role in addressing malnutrition and supporting sustainable, culturally rich food systems. Further research and clinical trials are necessary to validate the therapeutic benefits of these foods and integrate them into contemporary diets.

Keywords: Culinary Heritage, Micro/ Macro Nutrients, IFCT.

Introduction

Uttarakhand state was carved out of Himalayan districts of Uttar Pradesh on November 9, 2000, as the 27th state of Republic of India. Uttarakhand is situated at the foothills of Himalayan Mountain range. Uttarakhand is stretched over a geographical area of 53,483 Square Kilometer, including the hill area of 46,035 Square Kilometer and a plain area of 7,448 Square Kilometer (Uttarakhand at a Glance (2013-14). Thus, it is blessed with nature's bounty and is principally a hilly state with a forest cover of 34,651 Square Kilometer. Uttarakhand has a worldwide reputation of tourist destination spiritual tourism in particular).

The state of Uttarakhand is divided into two divisions Kumaon and Garhwal. The natives of these divisions are known as *Kumaoni* and *Garhwal* respectively. In this highly globalized era when everything is readily available and affordable in market with minimum of efforts, retaining agriculture-based lifestyles and putting physical efforts the way previous generations used to be is not mandatory for present natives, however it will be not appropriate either to assume that the culinary heritage is at absolute risk and traditional ways of preparing food has faded with the arrival of convenience food overflowing the market. The natives residing in rural areas of Uttarakhand still hold on culinary tradition in the form of cuisine and culture despite the shift in dietary pattern. Local traditional food culture still survives and

continues to stand apart as far as cultural values, identity and sustainability is concerned.

Traditional food systems are rich in biodiversity and offer nutritional benefits (Ghosh- Jerath *et. al.*) However, despite their potential to address modern nutrition challenges, Uttarakhand's unique culinary heritage is fading, replaced by trendy cuisines. Modernization and the ease of contemporary life have altered the way of life for mountain dwellers, leading to a decline in appreciation for sustainable, time-tested traditional foods. Migration, the desire to escape harsh mountain life, and the decline of agrarian communities have led to a loss of interest in Uttarakhand's traditional food systems. While efforts to preserve its culinary heritage have been made since the state's formation in 2000, these initiatives remain largely symbolic, with little commercial presence in restaurants or catering.

This research aims to document and promote Uttarakhand's traditional food knowledge, emphasizing its nutritional and cultural value. The study seeks to engage researchers, policymakers, and the public to help preserve and incorporate these foods into modern diets. The specific objectives of the study are

1. Understanding the culinary heritage of Uttarakhand.
2. Identifying Traditional Recipes of Uttarakhand.
3. Analyzing the nutrient content of traditional recipes of Uttarakhand.

Literature Review

Uttarakhand is a hill state: it differs from plains in terms of topography, elevation, geographic features, habitat, diversity, and land use pattern. More than 80% of the cultivated land depends upon rainwater for crop husbandry. The climatic condition of region varies from place to place, which greatly affects the crop production and natural vegetation pattern. In such conditions, local farming communities and other inhabitants' dwell upon a large no. of plant species for their food security. Traditional farming system, identification of wild plants species for their food importance, diversification of food items and value addition in local recipes are of paramount importance to secure the food availability in the region. Majority of traditional recipes are mainly attributed to the cause of sustainability of livelihood of local inhabitants in Uttarakhand state, particularly in the hill region. (Mehta *et. al* 2010)

The hill and mountain areas have a unique feature with respect to topography, climate, and production system. Most of the hill farmers have small and scattered land holdings, low investment capacity and very little technical know how about improved crop production practices which may create hindrance to food security of the region, to mitigate the problem of provision of sufficient food, the local have identified ways to get nutritive food from the local food sources. This nutritionally rich food may include the underutilized cropping system of the region, viz. finger millet, barnyard millet, foxtail millet, yam, horse gram, black soybean, which is a good source of various essential nutrients and micronutrients. (Joshi *et. al.* 2015).

The food offered in the pure environment amid hills and valleys of Uttarakhand bursts with authentic flavors. Both Garhwali and Kumaoni cuisines stay authentic to food's natural tastes without an overpowering melee of spices. All food preparations are rich in nutrient factor and since they are imbibed with various herbs, lentils, cereals and pulses they hold a staggering number of health benefits. There is a vast variety of slow food options in Uttarakhand which makes it an exciting venue for slow food tourism. The authenticity of its cuisine is not marred by homogeneity of taste and culture; Uttarakhand indeed promises thrilling and exciting meals for tourist from any section of the world. (Ahlawat M. 2019).

Just a few decades back in the time of grandmothers no one used to consume refined food, neither refined oil, nor refined sugar / grains. Our forefathers were coarse grain eaters. *Jowar, Bajra, Maize, Barley, Ragi*, and many other healthy and nutrient laden grains used to form a major part of our diet disappeared gradually and for our nutritional requirement we were confined to wheat and rice. (Maurya S. 2019).

Benjwal S, (2019) in his memoir states that as my research in food science went ahead it was found that in some areas *Dubkein* some areas are known as *bhatiya* and in some places it is also called *Bhatwani*. In the eastern part of Chamoli district it becomes *Ganjadu* or *Ganjud*. Mothers then used to encourage children to eat it a lot as it is protein rich; protein is required for strength and body building. The nutritional fact of this traditional delicacy was attested by modern nutrition science and dietetics 'book. These books of dietetics suggest that one gets 119.6 calories from about 125 grams of *Pahari kali bhatt* (Himalayan black soybean) and 34 percent of these calories are being provided by protein.

Traditional food systems are well- adapted to the local, ecological,

sociocultural, and economic settings; they are best placed to carry forward nutritional and health security among masses (Niketan *et. al.* 2018).

Use of Indigenous traditional knowledge will also promote organic cultivation by reducing dependency of synthetic agro chemicals. Integrating ITK's with current conventional practices will be helpful in producing safe and healthy food for both consumers and the environment. (Nautiyal, P. 2020).

The traditional mixed cropping system (*Barahnaja*) possesses all the necessary ingredients for the community's food and nutrition security. Cultivation of different crops in the same field provides multiple food options and less chances of crop failure in adverse conditions or natural calamities like flood or pest disease outbreak (Sauerborn *et. al.* 2000). Most of the crops grown in the *Barahnaja* system are hardy, drought tolerant, resistant and are nutritionally superior to major cereals (Muthamilarasan and Prasad 2019).

Research into indigenous foods and the nutritional practices related to these foods are gaining momentum for many reasons. Firstly, for the scope of these foods to provide a nutrient rich diet by virtue of their diversity is considered important for maintaining a holistic health status through natural means. Secondly, the propagation of the consumption of these provides a buffer against the increasing displacement of traditional dietary patterns by marketed, processed foods. Data in the form of a comprehensive bio repository of indigenous foods is very limited in India. (Bhattacharjee *et. al.* 2009)

Methodology

It is an exploratory cross-sectional study, being exploratory in nature the present study aims at better understanding of the Culinary Heritage of Uttarakhand through identification of traditional recipes. The research design includes Identification, Nutrient Analysis with reference to human health and nutrition.

For present study villages in Almora, Bageshwar, Champawat, Nainital, Pithoragarh in Kumaon region and Chamoli, Dehradun, Pauri, Rudrapur, Tehri and Uttarkashi in Garhwal region were investigated for understanding the culinary heritage, traditional food, traditional ingredients, food processing techniques and traditional crop pattern system. A total number of 30 villages were investigated and information received relevant to study objectives was documented. The districts in

the hill region where the density of native population is highest and traditional food consumption is substantially higher were the main source of information.

Table-1 Study Population in Kumaon and Garhwal Region of Uttarakhand

S.NO.	REGION	NAME OF DISTRICTS	VILLAGES CONTACTED
1.	Kumaon	Almora, Bageshwar, Champawat, Nainital, Pithoragarh, Udham Singh Nagar	<i>Aincholi, Alookhet, Amtoli, Bamradi, Barabe, Bhoomiyedar, Chaukhutia, Gethia, Jeoli, Manora, Naini Saini, Puneri, Thal, Toli,</i>
2.	Garhwal	Chamoli, Dehradun, Haridwar, Pauri Garhwal, Rudrapur, Tehri Garhwal, Uttarkashi	<i>Agora, Anjanisain, Baisoli Malli Chopra, Deval, Gevanla, Govindghat, Jaunpur, Jyeshdwadi, Kaintholi, Koti Tyoonsa, Purola, Rainthal, Sema, Sunil, Tiloth,</i>

The study utilizes both Primary and Secondary data. Primary data were collected through field visits, focus group discussions, free listing methods, structured and semi structured interviews with native community members, interaction with key informants, formal / informal discussions with experts, telephonic conversations and note taking during field observations.

Secondary data were collected through reference books, trade associations, online databases, government departments, official statistics, newspapers, journals, web sources. Thus, the study utilizes both qualitative and quantitative data.

The study adapts following methods for collecting data under different heads:

1. Identification of Traditional Food / Recipes

Field visits were made by the investigator and the research assistant, the assistant explained the purpose of the study and about the data collection procedures. Vernacular languages were used to discuss with natives to collect immense data. Smart phones were used to take photographs, videos of traditional food and related aspects. Key informants in the community were identified during the initial interaction with the community. Mothers / care takers, Elderly, Community Health Workers, Agriculture and Extension workers were the main Key informants.

2. Categorization of Traditional Food / Recipes

Traditional Food/ Recipes once identified have been categorized based on Nutrient Composition, Serving Time, Frequency of Consumption, Ingredients, Fusion or Incorporation in Modern diet

3. Qualitative and Nutrient Analysis

For the qualitative aspects information on different traditional food items, consumption pattern, frequency (regular or during festivities or under special physiological conditions as pregnancy, lactation, infancy and adolescence), opinion and attitudes towards traditional food and the cultural value attached in normal and disease conditions were collected and analyzed qualitatively. Whereas for Nutrient analysis data on the amount (in terms of weight or volume) of traditional food was collected and their nutrients were calculated from Food Composition tables (Indian Food Composition Tables (2017)).

Results & Discussion

Identification of traditional recipes of Uttarakhand

The present study was carried out to understand the diverse yet rich culinary culture of Uttarakhand state. Traditional food recipes are the true representation of one's culture and heritage. These foods have a strong association with history and culture. Traditional food recipes are the best way to explore the gastronomy of a particular region.

To achieve one of the study objectives, a total no. of 50 recipes (in the form of Snack, Side dish, Complementary, Starter, Dessert, Soup, Main dish, Chutney, dip, Beverages, Non-vegetarian recipes) were identified and listed. These recipes (**Table 2**) are quintessential cuisine of Uttarakhand. Listed recipes belong to both Kumaon and Garhwal region. In addition to this some distinct recipes of tribes in the state have also been identified and listed.

Recipes like Aloo ke Gutke, Arsa, Bal Mithai, Bari, Bhatt ki Churkani, Bhutuva, Buransh ka juice, Dubuk, Gehat Dal, Jhangore ki kheer, Jholi, Kakri ka Raita, Mandua Roti, Rothan (Rotne) Singori, Swnanle, Rus, Urad dal ke bade, Aloo thecha, Kapuli are still frequently consumed, however sweets like Bal Mithai and Singori are commercially available in the market, as these recipes need highly advanced level of culinary skills and expertise, that's why people prefer to buy them instead of preparing at home in the study area.

Table 2 : Identification of the Traditional Recipes of Uttarakhand

S.N.	NAME OF TRADITIONAL RECIPES (VERNACULAR NAME)	MAIN INGREDIENT/S USED	RECIPE TYPE	REGION
1.	Aloo ke Gutke	Pahari Aloo (potato),	Snack	Kumaon, Garhwal
2.	Aloo ke Jhol	Pahari Aloo (potato), Cherry tomato	Side dish/ Complementary	„
3.	Arja	Goat Intestine, Mutton Pieces, Blood	Non-Vegetarian Dish	Tribal
4.	Arsa	Rice, Jaggery	Sweet dish	Kumaon, Garhwal
5.	Badi/ bari	Urad dal, Kakri, Ash Gourd	Side dish /Complementary	Kumaon, Garhwal
6.	Badil	Urad / Masoor Dal, Ragi Flour	Snack/ Starter	Kumaon, Garhwal
7.	Bal Mithai	Milk, Khoya, Sugar	Sweet dish	Kumaon
8.	Bhang ki Chutney	Bhang (Hemp Seed), Lemon (<i>Chookh</i>)	Dip / Chutney	Kumaon, Garhwal
9.	Bhatiya	Himalyan Black Soybean, Rice Flour, Ghee	Main Dish	Kumaon
10.	Bhatt ki Churkani	Black Soybean	Side dish /Complementary	Kumaon, Garhwal
11	Bhutuwa	Goat's intestine, Himalyan Herbs, Mustard Oil	Non-Vegetarian Snack	Kumaon
12.	Buransh ka Juice	Buransh Flower, Sugar	Beverage	Kumaon
13.	Chachiya / Jaula	Cereals, Whey (Mattha)	Side dish	Kumaon, Garhwal
14.	Chainsoo	Urad, Gehat dal, Ghee	Complementary	Kumaon, Garhwal
15.	Chuntha	Wheat flour, Jaggery, Mustard Oil	Complementary	Tribal
16	Chura/ Khaza	Soaked, Roasted, Hand pounded paddy, Til,	Snack	Kumaon, Garhwal
17.	Dal (Mix) Pakore	Pulses, Mustard Oil	Snack	Kumaon, Garhwal
18.	Dubuk / Dubke	Black Soybean, Himalayan herbs	Main Dish	Kumaon, Garhwal
19.	Gehat ka Soup	Horse Gram,	Snack/ Starter	Kumaon, Garhwal
20.	Gehat ki Dal	Horse Gram	Side dish /Complementary	Kumaon, Garhwal
21.	Jhangore ki Kheer	Jhangora, Milk	Sweet dish	Kumaon, Garhwal
22	Jhangore ka bhat		Complementary	Kumaon, Garhwal

Exploration, Identification, and Nutrient Analysis of Traditional Recipes from Uttarakhand..

23.	Jholi (<i>Paayo</i>)	Rice Flour, Curd, Whey, Fenugreek Leaves	Side dish /Complementary	Kumaon, Garhwal
24.	Kachmoli	Mutton pieces, bhang/ green chutney	Non vegetarian Snack	Tribal
25.	Kafuli	Green Leafy Vegetables	Side dish /Complementary	Kumaon, Garhwal
26.	Kakri ka Raita	Pahari Kakri, Curd	Side dish / Side dish /Complementary/ Dip	Kumaon
27.	Kamchha / Dongha	Mutton, Potato, Bhang jeera, Tomato (Ash Roasted)	Non-Vegetarian dish	Tribal
28.	Kappa / Kapuli	Green Leafy Vegetable, Pulse	Side dish /Complementary	Kumaon, Garhwal
29.	Khjoor/ Ghugte	Atta, Jaggery, Ghee, Oil	Sweet	Kumaon
30.	Koda / Manduwe ki Roti	Ragi Flour	Side dish /Complementary	Kumaon, Garhwal
31.	Lesu Roti	Ragi Flour, Pulse	Side dish /Complementary	Kumaon, Garhwal
32.	Machh	Fish, herbs, mustard oil	Non-Vegetarian dish	Kumaon, Garhwal, Tribal
33.	Maande/ Dhapariya	Rice flour, Urad dal, Masoor dal	Side dish /Complementary	Kumaon
34.	Naal Bari ki Sabji	Arbi ka Danthal (Colocasia Stem, Pulses, Herbs	Complementary	Garhwal
35.	Namkeen Jya/ Tea	Himalyan tea, Ghee, Himalayan salt	Beverages	Tribal
36.	Namkeen Sukha Bhat	Sun dried boiled rice, Ghee, flavored Salt	Side dish /Complementary	Tribal
37.	Panjola	Meat pieces, mustard oil	Non-Vegetarian snack	Kumaon, Garhwal, Tribal
38.	Phanuu	Pulse	Complementary	Kumaon, Garhwal,
39.	Poli	Fafar	Complementary / Main	Tribal
40.	Rot	Ragi Flour, Urad/ Gehat Dal	Snack	Kumaon
41.	Rothan/ Rotne	Wheat Flour, Milk, Ghee	Snack	Garhwal
42.	Rus	Mix Pulses, Himalayan Herbs (Jamboo)	Complementary	Kumaon, Garhwal
43.	Sana Nimboo/ Nimboo ki Sani	Pahari Santara, Bara Nimboo, Honey, Curd, Hemp seeds	Snack	Kumaon, Garhwal
44.	Sattu	Roasted, hand pounded millet powder, Jya, Sugar/ Jaggery	Ready mix	Garhwal

Prabha Bisht

45.	Singal	Rice flour, curd, sugar, <i>Ateena</i> (<i>Salam mishri</i>)	Sweet dish	Kumaon
46.	Singori	Khoya, Coconut, Sugar,	Sweet dish	Kumaon
47.	Swanle	Tur Dal, Wheat flour, Himalyan herbs	Snack	Garhwal
48.	Thecha/ Thachwani	Himalyan potato radish, herbs	Complementary	Kumaon, Garhwal
49.	Urad Dal ki Bade	Urad Dal, Til (Linseed)	Snack	Kumaon, Garhwal
50.	Urad Dal ki pakori	Urad dal, Gram Flour, Oil	Snack	Kumaon, Garhwal

The food consumption pattern in remote areas is mostly inclined to the traditional and holistic path of eating; this is because of easy availability of traditional produce and self-sufficiency in terms of growing their own food. It is popularly said that the people from yester years were self-sufficient from food production standpoint with exception of salt which they used to get through barter systems. Over the years they have also got mastery over picking up and combining the right amount and type of food for themselves within the range of naturally available food items.

The eating pattern of people residing in urbanized locations suggests preference for westernized diet over traditional food items, this could be attributed to several factors as lack of time, little or no access to such food items, lack of knowledge on how to prepare food in traditional way or apprehension, primarily because of unawareness towards traditional food items in terms of taste, texture, appearance, digestibility, and nutritive value. Despite the enormous transition in food choices, it would not be fair to say that traditional food items have no value for people residing in urbanized locations. Occasionally as in festivities, gatherings or formal functions people do relish these food items prepared to keep up the culinary heritage of Uttrakhand. Not all but most of the recipes listed in **Table 2** are served both in local as well as urbanized high-end eateries. Soulful, hearty traditional meal filled with taste and culture is served at very affordable price especially in small roadside eating establishment in hill terrain.

Identified traditional recipes may have regional variations but the characteristics like utilization of natural, organic ingredients, simple cooking methods, maximum utilization of available food items, judicious combination of ingredients, minimal or no processing & wholesomeness is alike. In traditional cuisine ingredients and spices are utilized in most natural form often from farm to kitchen.

The food item is preferred over its blended, processed, powdered, or chemically treated counterpart. Natives still use *Sil-batta (Grinding Stone)* to grind wet or dry ingredients for traditional preparations, though it hardly finds a place in urbanized kitchen. Use of Iron, copper, brass even wooden utensils are common practice in traditional method of cooking. While cooking, the outer covering of utensils are thoroughly smeared with soil and water mixture to retain the temperature. A few decades ago, use of aluminium was restricted, though steel had marked its presence in culinary culture of Uttarakhand.

Nutrient Content of Traditional Recipes

The nutrient content of the identified traditional recipes is presented in **Table 3** the findings suggest the traditional diet is proficient enough to fulfil the Recommended Dietary Allowance (RDA) of population in the similar way as the modern diet is. Nearby nutritive values or the values of similar food items were taken into consideration for the food whose nutritive values are not covered in IFCT- 2017. Traditional wisdom combined with practical knowledge offers a splendid array of solutions to the dual burden of malnutrition, that our country is facing.

The nutrient content of all 50 archetypal recipes of Uttarakhand highlights that Traditional Food can offer balanced and optimum nutrition to the people even in the oddest circumstances. Traditional cuisine is enriching, some of the ingredients in these recipes surpass the nutrient content of present food in terms of carbohydrate, protein, vitamins, minerals, and fiber. Study findings suggest that the traditional cuisine and the culinary heritage offer nutrient dense, unprocessed, and balanced meal to one and all. The traditional diet is not just empty caloric but is packed with essential micronutrients. It has potential to combat hidden hunger of population.

Conclusion

The fact that many of the identified recipes are still prepared regularly by locals using traditional methods, both for their flavor and to preserve cultural identity while strengthening community ties, clearly demonstrates the positive resurgence of traditional foods in contemporary eating habits. The convergence of age-old wisdom with practical know-how presents a remarkable range of solutions to the dual challenge of malnutrition currently confronting our nation. Locals are aware with the fact that traditional foods are super foods and have

Table 3 : Nutrient Analysis of Traditional Cuisine of Uttarakhand

S.N.	TRADITIONAL RECIPES	NUTRIENTS / 100 GRAM						
		CHO (gm)	FAT (gm)	PROTEIN (gm)	VIT A (mcg)	VIT C (mg)	CALCIUM (mg)	IRON (mg)
1.	Aloo ke Gutke	20.2	5.3	2.5	--	--	--	--
2.	Aloo ke Jhol	10	2	0.9	--	--	--	--
3.	Badi/ bari	32.9	1.0	12.8	--	--	119	3.9
4.	Badil	62.9	11.5	16.3	--	--	30	2.3
5.	Bhatt ki Churkani	10.3	2.9	3.5	199.4	9.8	30.5	1
6.	Bhang ki Chutney	22	18	21	--	66.25	7.5	0.1
7.	Chainsoo	29	30	11	--	--	11.4	1.03
8.	Chuntha	86	15.3	6.6	--	--	17	4.0
9.	Chura / Khaza	85.18	1.1	7	--	--	--	--
10.	Dal (Mix) Pakore	147	110	52	--	--	--	--
11.	Gehat ka Soup	11.4	5	4.4	--	--	57.4	1.4
12.	Gehat ki Dal	34.2	15	13.2	--	--	160	4.2
13.	Jhangore ka bhat	25	1.8	5.5	--	--	11	9.3
14.	Jholi (Palyo)	30	5	2.1	--	--	120	2.5
15.	Kafuli	76	--	9.28	--	--	0.75	0.63
16.	Kakri ka Raita	9.65	0.849	3.08	--	--	98.06	0.308
17.	Kappa / Kapuli	16.9	0.6	3.0	--	--	70.2	2.2
18.	Koda / Manduwa ki Roti	36	.60	3.65	--	--	172	1.6
19.	Lesu Roti	33.0	.36	6.59	--	--	160.6	2.36
20.	Maande/ Dhapariya	25	6.0	3.0	--	--	--	--
21.	Naal Bari ki Sabji	15.4	0.36	4.4	--	--	117.4	1.4
22.	Namkeen Sukha Bhat	31	12.3	4.7	--	--	--	--
23.	Phanuu	12.0	2.0	3.8	90.6	--	48	3.15
24.	Rothan/ Rotne	43	22.2	4.8	--	--	44	1.1
25.	Rus	80	26	29	--	--	173.09	20.36
26.	Sana Nimboo/ Nimboo ki Sani	45.59	0.96	2.74	--	20.6	90.2	2.32
27.	Swanle	37.04	10.6	12.8	--	--	20.73	1.0
28.	Thecha/ Thachwani	4	1	0.4	--	--	--	--
29.	Urad Dal ki Bade	30	0.8	10.5	--	--	90	3.6
30.	Urad Dal ki pakora	30.09	20.03	8.85	--	--	28.5	2.57
31.	Arja	1.5	25	10	--	--	--	2.0
32.	Bhutuwa	1.2	10.25	9.4	--	--	--	5.04
33.	Kamchha / Dongha	4.65	16.8	20.62	--	--	1.5	2.8
34.	Machh	0	0.2	17	--	--	14	--
35.	Panjola	0.1	31	33	--	--	10	4.8
36.	Kachmoli	2.7	26	39.5	--	--	29.64	2.4
37.	Bhatitya	20	14.4	9.5	3.3	--	83.5	15
38.	Dubuk/ Dubke	22	12.2	8	8.0	--	81	4.0
39.	Rot	45.42	0.5	7.08	--	--	222	3.71
40.	Poli	9.4	1.3	1.9	--	--	17	1.8
41.	Chachiya /Jaula	25.15	5	2.648	--	--	212.2	1.49
42.	Arsa	78	8.9	3.0	--	--	9.7	0.3
43.	Bal Mithai	76	15.55	13.65	--	--	--	--
44.	Jhangore ki Kheer	36.3	18.01	27.3	--	--	--	--
45.	Khajoor (Ghugte)	60	25	9.5	--	--	--	--
46.	Singal	40	11.5	8.7	--	--	--	--
47.	Singori	69.6	20	15	--	--	70.7	--
48.	Namkeen Jya (Tea)	--	5	--	--	--	--	--
49.	Buransh ka Juice	60	--	0.02	2.1	1.5	--	--
50.	Sattu	68.0	1.99	10.33	--	--	190	5.6

qualities to keep the disease at bay. However scientific validation needs to be explored through clinical trials to support such claims and adapt the challenges of contemporary nutrition bound deficiency diseases. Further studies can explore the science behind the health benefits of enlisted food items. This will strengthen the much- talked over health concept of “food is Medicine” in present scenario. The way these food items are incorporated in diet, is a matter of research curiosity too. The study advocates listing and identification of more traditional food items and their culinary applicability in terms of modern way of living.

REFERENCES

1. Ahlawat M., Sharma, P., & Gautam, P.K. (2019). SLOW FOOD AND TOURISM DEVELOPMENT: A CASE STUDY OF SLOW FOOD TOURISM IN UTTARAKHAND INDIA. *GeoJournal of Tourism and Geosites*, 26(3), 751-760. <http://doi.org/10.30892/gtg.26306-394>.
2. Benjwal, C. (2019) (www.kafaltree.com)
3. Bhattacharjee, L.G. Kothari, V Priya, and B.K. Nandi. 2009 The Bhil Food System: Links of Food Security, nutrition, and health. In *Indigenous people's food systems: The many dimensions of culture, diversity and environment for nutrition and health*, ed. H.V. Kuhnlein, B. Erasmus, and D. Spigelski, 209 -230. Rome, Italy: FAO.
4. Ghosh- Jerath S, Singh A, Kamboj P, Goldberg and Magsumbol S. M. (2015), Traditional Knowledge and Nutritive Value of Indigenous Foods in Oraon Tribal Community in Jharkhand: An Exploratory Cross - Sectional Study. *Ecology of Food and Nutrition* ,54: 493-519, 2015, Publish with License by Taylor and Francis, ISSN: 0367-0244 print/ 1543-5237 online, DOI 10.1080/03670244.2015.1017758.
5. How Local Food Traditions Survive in Globalized India- November 19, 2019, www.goya.in
6. ICMR-IFCT (2017) Indian Food Composition Tables. Hyderabad, India: National Institute of Nutrition (Indian Council of Medical Research) Department of Health Research, Ministry of Health and Family Welfare, Government of India.
7. Joshi P., Sharma N., Roy M.L., Kharbikar H.L., Chandra N & Sanwal R (2015) Traditional Food Practices in North Western Himalyan Region: Case of Uttarakhand. *Journal of Agricultural Engineering and Food Technology*, p- ISSN: 2350-0085; e- ISSN 2350 -0263; Volume 2, Issue 3; July- September, 2015 pp. 170-174.
8. Longvah T., Ananthan R., Bhasakarachary K, Venkaiah K. (Eds.) “Indian Food Composition Tables” National Institute of Nutrition, 2017.

9. Maurya S. (2019) hindi.thebetterindia.com, December 30, 2019.
10. Mehta P.S., Negi K.S. and Ojha S.N. (2010) Native Plant Genetic Resources and Traditional Foods of Uttarakhand Himalaya for Sustainable Food Security and Livelihood. *Indian Journal of Natural Products and Resources*. Vol. 1 (1), March 2010, pp 89-96.
11. Muthamilarasan, M, Prasad M 2019 Small millets for enduring food security amidst pandemics. *Trends Plant Sci*:<https://doi.org/10.1016/j.tplants.2019.08.008>.
12. Nautiyal, P. Traditional knowledge, and indigenous practices still in vogue among rural populace in Garhwal Hills, Uttarakhand. *Journal of Pharmacognosy and Phytochemistry* 2020;Sp 9(2): 145-147.
13. Niketan, N., Ibrahim, G., Thar, R., Jain, A., Abraham, M., Valsangkar, S.S., et al. (2018). Exploring the Potential of Diversified Traditional Food Systems to Contribute to a Healthy Diet. *Food Sovereignty Alliance India & Catholic Health Association of India*.
14. Nutrient Requirements and Recommended Dietary Allowances for Indians (2010), National Institute of Nutrition. A Report of the Expert Group of Indian Council of Medical Research Hyderabad.
15. P.C. Tripathi (2016), Traditional Processed Fruits and Vegetables Products of Uttarakhand, Asian Agri- History Vol.21, No. 2, 2017 (139-146).
16. Sauerborn J, Sprich H, Mercer -Quarshie H (2000) Crop rotation to improve agricultural production in Sub Saharan Africa. *J Agron Crop Sci* 184: 67-72.
17. Singh C.M. and Katoch K.K. (2000), Management of hill and mountain agro ecosystem. In: Natural Resource Management of Agriculture Production in India, JSP Yadav and GB Singh (Eds.) International.
18. Uttarakhand-Uttaranchal Religion Census (2011) [www.census2011.co.in](http://www.census2011.co.in/data/religion/state/5-uttarkhand.html)<https://www.census2011.co.in/data/religion/state/5-uttarkhand.html>
19. Uttarakhand at a Glance (2013-14) Government of Uttarakhand, Directorate of Economics and Statistics, 100/6, Neshvilla Road Deharadun.

ACKNOWLEDGEMENTS

The present study is a part of Author's Minor Research Project "Culinary Heritage of Uttarakhand: The Pursuit of Health and Nutrition" (**Minor Research Project F. No.02/284/2017-18/ICSSR/RP/Minor**) The Author duly acknowledges the grants and sponsorship received from Indian Council of Social Science Research (ICSSR) New Delhi.