

# Ethnobotanical cultural lore from the Kumaon region of India

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## Abstract

As an ethnic region, Kumaon has its unique culture that encompasses living customs, food, medicine, recipes and cuisines, regional celebrations, religious rituals and ceremonies, and language. In its language, it uses phrases, idioms, sayings and riddles, particularly on food plants and on animals but here only plants are discussed. Earlier, these were used in day-to-day conversations and gradually their use is diminishing. However, in this discussion 14 plants have been taken with their local names, common names, botanical names, botany and uses etc. Their cultural value and significance and uses of the plants have been taken. Mainly, Black bean or Bhat and Kulath, and Gahot or Dolichos, which have been converted by the people of Kumaon into traditional cuisines which are tasty. In short their recipes and cuisines will be discussed along with their uses in Kumaoni Language.

**Keywords:** Alopecia, Anthropophilous Black-Soya Bean, Cuculus microppterus, Hose gram, Macrotyloma uniflorum, Myrica nagi, Rhododendron arboreum, Rubus ellipticus, Stinging-nettle, Taro, Traditional cuisines, and Urtica sp.

## Introduction

Ethnobotany, can easily be defined as the relationship between humans and plants. The tribal people or the ethnic communities throughout the world, have their own cultures, customs, cults, religious rites, taboos, legends and myths, folk tales and folk songs, food and medical systems and for this they often use numerous wild & cultivated plants. Kumaon is regarded as an ethnic region, which was earlier under Uttar Pradesh; now it is a part of Uttarakhand, a new state in India since 2000, Nov. Throughout its long history, various dynasties have ruled and influenced Kumaon, shaping its culture. The people who live in the mid-region of this land in six (6) districts, viz., Udham Singh Nagar, Nainital, Almora, Champawat, Bageshwar, and Pithoragarh, are known as 'Kumaoni'. Kumaon has a long history and in the past, it was ruled and influenced by different cultures of different dynasties. The Katuri dynasty from 600-1100, A.D.; the Chanda dynasty from 1100-1815, A.D. the Gorkhas of Nepal from 1791-1815, A.D. and the Britishers from the year 1815 up to 1947, the independence of India. Its culture is known as 'Kumaoni culture' having its own languages, the Kumaoni, which is classified under, Indo-European--- Indo-Iranian---- Indo-Aryan--- Northern zone---- Central Pahari and the Kumaoni,[5.] It has about 5-6 dialects spoken in different parts of the region.



Fig. 1. Kumaon position in India



Figure 2. Showing Kumaon with its six districts

However, the culture of Kumaon is rich in its own traditions, customs, religious rites, taboos, legends and myths, folk tales and folk songs, proverbs (Sayings), similes (a literary comparison for the sake of illustrating something), riddles, etc.; Kumaon also has its traditional food preparations (cuisines and recipes) from unusual food and medicinal plants, either cultivated or wild; traditional festivals, etc. However, more recently, the culture has been well defined by [10]:

"Culture is the great shaper of human will and desire; the social binder of a shared yearning for value and taste: the love of common language, cuisine, and way of life. It is the connector of future-looking volition with past-derived identity; a juncture where expectations can be challenged by deep-felt questioning will and desire are restricted by the extent to which imagination can fancy desirable objects, and imagination is culturally determined."

In the present work, an effort has been made to give a brief profile of the plants, which, apart from their food and medicine, have influenced the life of the people to such an extent that they have used these in their culture in the form of phrases, sayings, folk stories, songs, or riddles, etc., and these have been dealt with by [17], [22], [14].

As in the case of Black-bean or Black soybeans and Kulath, Dolichos beans, which were thought to be unpalatable by other cultures and rejected by them, and were given only to animals. These were successfully incorporated into their culture and evolved into a variety of delectable Kumaoni foods.

**The art of developing non palatable to palatable cuisine :** We do not know when they started this experiment but for about two hundred years or so we have been seeing this. Usually in Kumaon the ingredients added into every food are the paste of turmeric, coriander, and chilli pepper. But for developing non-palatable into palatable ones, like Ghaut and Bhat, horse -gram and black- soya bean, they have added flavours, which they acquire from the alpine region: the special seasoning material like *Angelica glauca* roots and *Allium* sp. leaves, which are aromatic for flavouring purposes, and they add lemon juice to certain food lemon juice. They do not add lemon juice to Bhat or Black soybean but only to horse gram. In other food they add curd or 'dahi' has given, the details of *Allium* species which are used for flavouring purpose known as 'Chives' [33].

**The depth of any language and the Kumaoni's language:** As far as the author knows, there are no such examples of plants being used in any language of the world, there exists the author is not aware of this. The richness of a language is its depth, expressiveness, and capacity to convey complex ideas, details, and nuances through its vocabulary, grammar, and cultural context. The language is rich in the sense that it has many proverbs, similes, and sayings with which other plants and animals are also associated and which depict the many feelings and notions in one word, for which you will have to write a long sentence. Proverbs offer advice, teach moral lessons, or serve as a concise way to explain a concept.

The incorporation of plants and animals into the Kumaoni language is reflected in idioms, phrases, and sayings; for the first time, he reported that these elements are included, but he did not provide any examples [28]. Therefore, here they are, for the first time: the uses of plants, brought to the world of ethnobotany, as we see it in the Kumaoni language.

In this discussion, the main food plants will be taken, which were rejected by many cultures but adopted by the Kumaonies and the other food plants wild or cultivated, that are being used as proverbs, sayings, and riddles will be covered.

In this paper, proverbs and riddles, etc., are given in the Roman language and not in the original Devnagri script with an English transcription.

#### A. Grown as Food plants:

1. Black beans, Bhat or Bhatmas (*Glycine max* L.)
2. Gahout, Kulthir Dolichos bean *Macrotyloma uniflorum* var. *stenocarpum* (Brenan)
- Verdc.syn. [Dolichos uniflorus var. stenocarpus Brenan](#)

#### B. Grown-as fruit, seed or vegetable plants.

3. Piyaj Onion (*Allium cepa* L.)
4. Kakar, cucumber (*Cucumis sativus* L.)
5. Nimu, Bara nimbu, Lemon (*Citrus limon* (L.)
6. Pinau, Ganderi, Banda, Taro (*Colocasia esculenta*)

#### 3. Wild Growing Fruits & flowers, leaves or rhizome.

7. Akhor, Akhro, Walnut (*Juglans regia*).
8. Kafal, (*Myrica. esculenta*)
9. Burans, (*Rhododendron arboretum*)
10. Hisau, Hinssalu (*Rubus ellipticus*)
11. Shishoon, Bichu-ghas (*Urtica ardens*)
12. Peonli Basanti (*Hypericum cernuum*)
13. Masi, Jata-mansi (*Nardostachys jatamansi*)

**1. Black Bean or Black Soybean Bhat or Bhatmas or (*Glycine max* (L.) Merrill) (*Papilionaceae*) :** A total of 17, species of *Glycine* are found in the world, and 3 species have been reported from India. The origin of *Glycine max* is stated to be in China, although some believe that it originated in Australia, where the wild soybean was first cultivated. In Kumaon, the seeds are grown and used. However, a very detailed account of *Glycine max* is given along with various recipes and cuisines prepared out of the black bean in Kumaon. [23]. (Note: This paper was awarded the "Sipani Krishi Anusandhan Farm Award 2006" for the best paper to the author).

Black soybean is a twining, sub-erect or erect, annual herb that reaches a height of 0.3–2.0 m. It is pubescent, with reddish-brown hair on all parts of the plant. The leaves are trifoliate, with 3.0–15 cm long elliptic-ovate leaflets. The inflorescence is a 5- to 8-flowered raceme, with violet, pink, or white flowers. The seeds are black or dark brown.

The Kumaoni recipes for the cuisines prepared from Black bean are described in this paper in detail. Further, the use of black soybean, as far as is known to the author, is only limited to Kumaon and Nepal. The use of Black-bean or Bhat, has so much influenced the life of the Kumaoni people that proverbs and sayings are prevalent and used as a cultural legacy, as below:



Fig. 3. *Glycine max*, 'Bhat' or Black Soya Bean, a cultural food of Kumaon. These are either flat or round. On the left side yellow Soya bean is also placed to show the difference of size and colour

**Bhat seed recipes:** Many of the recipes and cuisines are prepared from Bhat in Kumaon, known as 'Thatwani or Rasa', 'Churkani', 'Dubka', 'Bhat-Jaula', etc. These are parched in a Tawa and consumed as such.

**Thatawani:** Thatawani is the famous cuisines of Kumaon. It is prepared by mixing equal parts of 'Bhat' (*Glycine max*) and 'Gahut' (*Dolichos uniflorus*). and 'Cana', chickpea (*Cicer arietinum*), is then hard-boiled in an iron Karahi to form a decoction; the beans are separated, and the decoction is mixed with a paste of rice flour and then again boiled until it becomes dark black, then it is seasoned with *Allium humile* Kunth syn. *A. govanianum* Wall. & Baker or *A. consanguineum* Kunth and other species sold as 'Jambu'. However, the roots of *Angelica glauca* (Unmbeliferae) called 'Gandereni' also found in the alpine Himalayas, are also added while boiling. This imparts a unique flavour to the dish. Finally, garnished with coriander leaves, [30].

It is actually an important and famous cultural dish of Kumaon. It has been dealt with in detail. When any vegetarian guest comes, then it is served with rice and other vegetable dishes.



Fig. 4. Thatwani, a well-known cuisine of Bhat. The dish consists of Bhat, also known as black beans, Gahut (horse gram), and chana (chickpea). After hard boiling, these are taken out and the decoction is mixed with rice paste and again boiled and then seasoned with Jambu or cumin seeds. The seeds are taken as such or smashed and mixed with a little mustard or sarson oil and salt and made into a ball form known as laddoo and served with meal. Shownin photo Thatwani in a Karahi, mixed beans, and smashed beans ball or laddoos

**Dubka-Bhat:** Bhat beans are soaked in water and then ground, made into a coarse paste, and then boiled with a crushed piece of 'Gandreni' *Angelica glauca* roots. It is seasoned by native ingredients like *Jambu* or by cumin seeds and then garnished by coriander leaves, and served.



Fig. 5. Coarsely grounded Bhat is cooked for hours to prepare A tasty and nutritious cuisine commonly known as 'Dubka

**Churkani:** In this, Bhat are fried in an iron Karahi and then mixed with water and boiled for some time and then thickened by a rice-paste and then seasoned and garnished.

**Bhata jaula:** In this, equal quantities of rice and bhat beans are taken; the bhat seeds are soaked in water overnight, coarsely pounded and then mixed with soaked rice and hard-boiled. No condiments or salt are added. This is thought to be the most nutritious dish and is taken without salt



Fig. 6. Bhat-Jaula is thought to be most nutritious



Fig. 7: Jaula served on a plate and eaten only with special salt ground with green coriander leaves. a green chilli and salt ground mixture called 'Hara dhaniya loon'

**The sayings on the dishes.:**

"Arnhuni kau Dubuk lag gau." (Romanised text)

It is astonishing that 'Dubuka' (a semi-liquid and soft preparation) has stuck up in the throat (gullet) and could not be swallowed, meaning an unbelievable event, happening or incident.

"Kān je bhat bhutt, kān je cir cire utha". (Romanised text)

(The black bean, parched here and elsewhere, the sound of its bursting emerged.) Meaning the rumour spread far away from its place of origin. In English bad news travels fast or Badnews circulates quickly because people often circulate it everywhere.

**Gahot, Kulthi, Dolichos beans** (*Macrotyloma uniflorum* var. *stenocarpum* (Brenan auct. Lamk.) Verd. syn. *Dolichos uniflorus* Lam. (*Papilionaceae*): Genus *Macrotyloma* has total 29, species, in the world and distributed mainly in Africa & Asia. In Asia, it is represented by only 1 (one) species, found in India, Pakistan, Sikkim, Myanmar and Sri Lanka. It is one of the lesser-known beans, mostly given to cattle as fodder.

**Cultivation:** It is cultivated in some parts of the world, like Pakistan, Nepal, Sri Lanka, Myanmar, Malaysia, Africa, and the Caribbean islands. as fodder.

**Common names:** It is commonly known as Horse gram or Madras gram and, in different parts of India, known by different names, such as Sanskrit- Kulatha; Bengali- Kurti-kalai; Tamil- Kollu; Telugu- Ullavallu; Malayalam- Muthira; and in Kumaon- Gahot.

However, the decoction of 'Gahot' is used to eliminate kidney stones. Etymologically, 'Gahot', 'Ga' means 'in the initial stage' and 'ahot' means 'to destroy', meaning it destroys the stone in the initial stage, [14].

It is a scrambling annual herb with an angular stem. Leaves trifoliate. The central leaflet is a broad oval, without a point and about 2.5-5 cm long. The two lateral leaflets are narrower. Fruits: 3-5,cm long recurved glabrous and 4-8 mm wide, beaked, downy. The Pod Contains 5- 7,seeds. Seeds: The seeds are flattened and 3-6 mm long. The colour of the seeds varies from light red, brown, black or mottled red. It is cultivated in the Uttarakhand region from 1000-2000 m and also in Jammu & Kashmir, Himachal Pradesh, Rajasthan, Sikkim and mostly in South India. In Uttarakhand, it is an autumn crop, which takes up only 120-180, days to mature before the early winters.'



Fig. 8. Kulthi or Dolichos or horsegram seeds

In northern India, Dolichos beans are known as food for the poor and are not commonly used [9]. However, it is consumed as a whole seed or as sprouts by a large population in rural areas of South India.

**Uses in Ayurveda:** i. In Ayurveda, its seed powder mixed with radish leaves is administered 2- 3, times a day and used in stone; ii. In intestinal or stomach internal haemorrhage, its 'dal' (lentil) with rice is given in meals both times; iii. It is used in asthma, as its decoction is mixed with turmeric rhizome and salt and strained and given to drink, and after some time, the boiled seeds are also given to eat, and no other food is given; iv. In rheumatism & gout and in liver and spleen disorders, its decoction or prepared as dal, is given [9].

**In Blood group testing:** The Dolichos seed lectin can distinguish between A1 and A2 blood groups and therefore is commonly used in blood banks. The Dolichos seed lectin is used to study glycoproteins and glycolipids present in the cells. The extract has been patented by *Atal et al.* in Poland and Germany and the product is sold by the name 'Debylisine' [1]. This innovative product has garnered attention for its potential applications in both clinical and research settings. As a result, ongoing studies aim to further elucidate the mechanisms by which Dolichos seed lectin interacts with various biological systems.

**Recipes:** Many of the recipes and cuisines are prepared from Ghaut or Kulath beans in Kumaon, known as 'Phanda', 'Ghautani', and mixed with mash Urada dal, it is prepared mixed with the Taro or Ganderi pieces are also cooked, etc. Which is known as 'Ghaut mase Gander dal' It is most tasty.

**"Phanda:** The seeds are ground and then the coarse flour is heated in a Karahi till its colour changes to light brown, then water is poured, and salt and pepper are added. It is hard-boiled for some time, then lemon (*Citrus medica* L.) is squeezed to make it sour and then it is served.

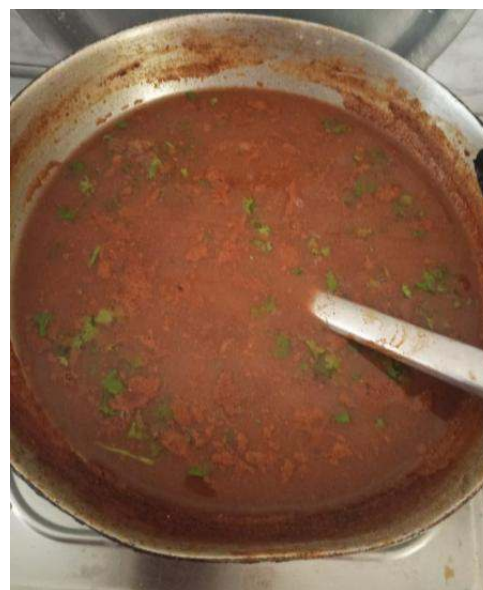


Fig. 9. Phanda another cultural food of Kumaon

**Ghaut Mash Ganderi Dal:** In this, horse gram is mixed with an equal part of *Phaseolus mungo* or black gram or urad bean, known in Kumaon as 'Mash and with pieces of Taro or Colocasia esculenta or Ganderi and then cooked.



Fig. 10. Kumaoni food served with Phanda



Fig. 11. Kumaoni food served with Ghaut Ganderi dal. A piece of Taro or Ganderi is well seen.

**Ghautani:** It is a non-vegetarian dish in which the pieces of foot bones (*Ganu or Paye*) of a goat (*Capra falconeri*) are boiled with the seeds for an hour or so. Then salt and other spices are added and served. It is said to be very nutritious and keeps the body warm during winters.

**As a Stonebreaker:** In ancient days, in Kumaon, when dynamite was not known, the seeds were used to break the hard rocks. A deep hole was made in the rock and seeds of 'Ghaut' were filled in, and then hot water was poured, and the mouth of the hole was plugged with a wooden peg and left overnight. It is said that the rock used to become soft and crack and was easily broken with this treatment. [22].

**Used in stone in kidney:** The decoction of the seeds is used in stone or kidney troubles. Soup is believed to maintain the body warmth during severe winters. Ground seeds are made into 'pakori'. Seeds are regarded as astringent, diuretic, and tonic and are used in leucorrhoea and in menstrual disorders [6].

### Phrases, Proverbs, and similes:

- (i). "*Ghaut khaye je macen.*" If Ghaut remains semi-cooked or not fully cooked, it causes a mild continuous nausea and uneasiness for some time; this condition is known as 'macen'. If someone continuously talks worthlessly or nonsensically.
- (ii). "*Ghaut ja sil lagi rau.*" It is very difficult to grind the Ghaut very fine, and one has to try hard to grind it many times to make a fine powder or paste. So if a person is continuously busy performing any task, he is referred to by the above phrase.
- (iii). '*Ghaut dekha dekh yo riol yain dekh.*' (We have seen Horse gram at many places but what we have seen here is unique.) It is a satire on those who keep their things very messy and untidy

**3. Piaz, Onion *Allium cepa* L. (*Alliaceae*):** Genus *Allium* has 700 species; about 30 are found in India. The region of diversity for *Allium* (Origin) is said to be the Central Asian region [Esquinas-Alcazar and Jose, 2004]. The species which are cultivated in India are mainly three- *A. cepa* (Onion) and *A. sativum* (Garlic), *A. ascalonicum*, L. ( Shallot) are largely cultivated. Onions are almost cultivated in all parts of the Kumaon region .for the people's own use and seldom for sale. Earlier, the Brahmins of this region did not take it. Now, it is almost well taken by everyone as a vegetable and food

There is a riddle on the bulb of the onion. "*Nan nan saligram lukur pairni than e' than.*" (A small saligram (small idol of god) wears clothes of many yards.) The central portion of the onion is equated to Saligram, or as an idol of God, and the scales as its clothes.

**Answer:** Piyaz, Onion



Fig. 12. The central portion is taken as an idol of God (Saligram) and over It is the Scale leaves, which are taken as a clothes of God

**4. Kaakar, Cucumber or *Cucumis sativus* L. (Cucurbitaceae):** Cucumis has about 54 species, mostly from tropical Africa and some are confined to tropical Asia. In India, 7 species occur, of which only 2 are cultivated for human use: *C. sativus* and *Cucumis melo*.

*Cucumis sativus* is cultivated throughout the region. When the cucumber matures and becomes yellow-light-brown and attains a good size, even nearing 60cm, it is known as 'Kalari kakar', which means 'ripened cucumber'. It is used for making nuggets (Bari) and is also believed to be medicinal.

Sometimes, the cucumber is bitter and a phrase is constituted: "Titi kakar titi beli, jas mehtari oose cheli." (A bitter cucumber has a bitter vine; as the mother would be, so would the daughter.) In English, the phrase is "Like father, like son".



Fig. 13. A young *Cucumis*, if left, will grow up to one ft. long with yellow then brown colour, then it will be known 'Kakar Kakar', used for making Bari or used in medicine

**5. Citrus limon (L.) Burm. f. syn *C. medica* L. var. limon (Rutaceae) or Medicinal Lemon, or Nimu, Bara Nimbu.** There are about 33, species of Citrus found in the world, and 11 are found in India and most of these are under cultivation. According to Citrus taxonomist, Tanaka the modern Citrus species originated in NE India and adjacent to North Myanmar (Burma) [29]. In India it is found in the outer valleys of Uttarakhand, Sikkim, the Garo hills and Khasia hills, the Pachmari hills (M.P.), the Satpura Hills, and the Western Ghats [46]. It is a shrub or a small tree found under cultivation from 1000-2500 m. in Uttarakhand and in Kumaon. and every villager or person living in small towns, who have some cultivatable space they grow Lemon. It is also sold in the market, presently, for Rs. 15-20/- each. It is treated as an auspicious commodity and during the marriage ceremony it is offered and exchanged by the bridal and bridegroom parties with each other. It is believed if someone sees a lemon in his dream, it is thought to be very auspicious and luck-rewarding [3].

**A Kumaoni cuisine of Lemon:** During winters, when the house-ladies sit in the sun, they prepare a recipe of lemon in which the pieces of peeled-off lemon are taken in small pieces in a 'Pie', or in a wooden bowl (now, it has become obsolete and seldom seen) or in a steel bowl. Small pieces of *Raphinus sativus*, Mooli, and Radish are cut, and seeds of *Cannabis sativa*, Bhanga (Hemp seed-salt), are prepared by grinding salt mixed with green capsicum (*Capsicum frutescens* L. called Khusani (Mircha)), *Coriandum sativum*, green coriander, Dhani (Dhaniya), Jaggery (Gur) and Dahi (curd). It is mixed thoroughly by hand (this term is known as 'sanam') and then served on plates. This dish is called 'Sani Nimu' and it is thought to be very nutritious and said to be prophylactic for the common cold. It is also preserved in the form of pickles. Shah, has given a detailed account of *Citrus medica*, the lemon, with its common names and various medicinal and other uses, [29].



Fig. 14. *Citrus medica* L. var. *limon*, It is mostly cultivated by the local people in the field Near their houses



Fig. 15. Lime is used for making simple pickles or Achar



Fig. 16. It is also used to make a delicious dish known as 'Sani Nimu'

**6. *Colocasia esculenta* L. Schott syn. *C. antiquorum* Schott F. T. Hubb. & Rehder (*Araceae*) or Pinalu, Ganderi or Taro:** There are 8 species of *Colocasia* found in the world, out of which 5 are found in India. Its origin is attributed to the Indo-Malayan region but ethnobotanical evidence favours India as the place of its origin. The cultivated form is said to have originated in Assam (India) or upper Assam or upper Myanmar (Burma) [15]. It was recorded as an important food crop in China about 100 BC.[16]. It is a tall herbaceous plant with a long stout petiole and dark green big leaves with ovate triangular blades 40-66 cm across, attached in the middle to the leaf-stalk (peltate). Petiole 90-120 cm, stout, green or dark violet in colour, which looks like a stem. It is used in making 'Bari' nuggets. The plant is rarely seen in flower. Rootstock, a corm and cormels. Centre corm (stem) spherical 10-30 cm long and 6-15 cm round, known as 'Ganderi', with 6-10 attached long and stout cormels (tubers). There are many varieties from different regions of Kumaon, which depend on acridness and fibrousness. Those varieties are thought to be good which are soft and ready for cooking and non- fibrous.. The famous varieties are said to come from Totam (near Ramnagar), Kutani (Bhimtal), Takula (Bageshwar), Dunagiri (Ranikhet), and Vinta (Ranikhet). In general, the central corm and the cormels are called 'Pinalu' or 'Pinau'. The plant is propagated by these tubers or cormels. And the unopened leaves are used in making a fried preparation known as 'Gabs' and also used in worship. A paper has been done in detail on the botany, distribution, origin, folk taxonomy, Kumaoni cuisine and its uses in other parts of the world. Kumaoni proverbs and sayings related to Taro [27]. Taro is much used in Uttarakhand (preferably in Kumaon); hence, it has been associated, in proverbs and sayings, etc.,



Fig. 17. *Colocasia esculenta* or Taro or known as Pinau or Ganderi



Fig. 18. Planted Taro or Ganderi. near a house known as Papar



Fig. 19. Young and un-opened leaves of Taro leaves are used in worship and also for making Gaba, a fried preparation



Fig. 20. After making Bari, it becomes a problem to save these from the birds and monkeys and to save them, so people have made scarer for it



Fig. 21. Paaper Bari, or nuggets, are supposed to be the finest Bari, as these are tasty and are very light

#### Phrases & sayings:

(i). 'Eke kharr a pinau chun'

(The 'Taro' of the same Khar ( field).) Some time, the 'Taros' of the same stock, growing in the same field are acrid, then, whole lot would be acrid and of bad taste.

English phrases, 'Cast in the same mould' or 'Rogues of the same house'.

(ii) 'Khar pinau khare sar' The waste fields growing Taro are not eaten by anyone, so they rot there. No one likes people who like to be left alone and do not want to do anything good for others and they remain aloof. They do not do any good for the society.

(iii) "Ghar pinau, ban pinau, mama yan gayun nau hãth lambã pinau" (Taro in the house, taro in the forest and when visiting his maternal uncle's house, there was a nine-hand-long 'Taro'). Meaning, everywhere, there is the same situation or conditions.

(iv) Na miar pinau, na miki kukel." (If the Taros are not mine, how can you blame me for their acrid taste?) When someone's kith & kin have not done anything

wrong, then why should he worry and bother?

(v) *Pinau ja pat pani* (Like the water drops on the surface of the 'Taro' leaves.) Means, a very unstable (unreliable) person, who can slip any time like the water drop on the surface of the leaves.

### 7. Akhor, Walnut or *Juglans regia* L. *Juglans kamaonia* Dode variety *kumaonica* DC.

(**Juglandaceae**): There are 22, (twenty two) species of *Juglans* found in the world; only 1 (one) is found in India and its origin is said to be Europe. It is a tree, found wild in many parts of the world, mainly in Asia and Europe. It is also grown and cultivated in most parts of the world, including California, Southern Europe, Jammu & Kashmir, China and Turkey. The species, which is cultivated in Kashmir and Himachal Pradesh, is Persian., *Juglans regia* L ssp. *Fallax* (Dode) Popov, known as 'Kagzi Akhrot' [20,24b]. In Kumaon, walnuts are only found wild and sometimes grown near the houses.

The fruit is covered with a green leathery husk which encloses a wrinkled brown shell. The fruit is covered with a green leathery husk which encloses a wrinkled brown shell. The rind of the mature fruit is very hard and can only be broken with a stone or with a heavy and hard thing. The rind is covered with a green leathery coat. It is identified as *Juglans regia* Linn. variety *kumaonica* DC. It is commonly called "Akhrot" in Indian languages. However, in Kumaoni, it is called 'akhor'. People have deciphered the meaning: 'a' means 'no' and 'khor' stands for a disease known as 'alopecia', meaning 'no alopecia'. It is stated that if the paste of the green leathery coat of a walnut is applied on a head having alopecia, it is said to be cured. The dried leaves are often kept in stored grains as an insecticide [20,22,24]. The wood is very costly and was previously marketed from Kumaon for making furniture and the butts of the guns or 'gun stocks'. The Kumaonis have also used the plant in their phrases and idioms, such as

"Dante le phutia akhor jumla par hooncha, dusra ka man bujhania aphi kile runcha." (The walnut, which could be broken by teeth, is said to be found only beyond 'Jumla' (a small village) across the river Kali (in Nepal). The person who consoles others in their grief, then, weeps when he is himself in grief. Not only this, but there is also a philosophical saying about destiny with the walnut: i] *Akhor phori ber sabe cani, karam phori ber ko chan.*" (Anyone can easily see what is inside the walnut but no one can see, the destiny by breaking the forehead.). Brain looks like a walnut. It is supposed the writings of fate are inside the forehead.



Fig. 22. Wild Akhrot of Kumaon  
*Juglans regia* Linn. variety *kumaonica* DC



Fig. 23. Market variety of walnut or akhrot-kagzi  
*Juglans regia* L ssp. *Fallax* (Dode) Popov, (Website)

### 8. *Myrica esculenta* Buch. Hamilt. ex D. Don syn *Myrica nagi* Thunb. Ssensu Hook. f.

(**Myricaceae**) **Kafal, Himalayan bayberry**: There are 21, species of *Myrica* found in the world but in India only 1 is found. It is a small, evergreen tree. 5-20 m. high. Fruit a succulent drupe, ovoid and fleshy; when young, it is green; when ripe, it is red; and when fully ripe, it becomes black. In Kumaon, it is common in Pine, Oak and Rhododendron forests from 1800 to 2500 m. Its fruiting time is from April to June. It is also distributed within the country in Jammu & Kashmir, Himachal Pradesh, Sikkim, Darjeeling (W.B.), Assam and Meghalaya. In other parts of the world, it is distributed in Nepal, Bhutan, Myanmar (Burma), Thailand, Vietnam, Japan, Malaysia and China. In China, it is found on mountain slopes at 300-2500 m. NW Guangdong, Guangxi, S and W Guizhou, W Sichuan and Yunnan. Regional uses as medicine, etc.: [7]. It is also reported that the bark is used in epilepsy and rubbed into the body after illness. Fruits are eaten throughout the region and also brought to the local markets for sale. Bark decoction is used in digestive disorders. Bark is traded to plains, where it is used in the Ayurvedic system of medicine, [20,22].

In Kumaon folklore, two types of Himalayan 'Kafal' are recognised by the local people, according to the seasons of ripening of fruit: one is 'Chaitya kafal', which ripens in the months of March-April and 'Jethia kafal', which ripens in 'Jeth May-June' [3].

Folk tales, sayings, Proverbs, Songs, etc " "Kafawa vota be sain dikhin".(If you climbed the Kafal tree, you would only see the little plain ground.) And, to see long distances, you have to climb a high tree or a high hill. Meaning, unless you make hard efforts and work hard, you can not achieve your goal.

**Riddle:**There is a riddle in Kumaoni: (*Nanchina hari bhayo. Bhari jawanim lal, Budappm Kalo bhayo kar bhula vichar*). In childhood, it is green; in youth, it is red; and in old age, it becomes black. Now, O'lad, tell me what it is. Answer: Kafal fruit. Which is first green, then red and lastly becomes dark black, [Pandey & Pande,1999].



Fig.24. Myrica esculentai, 'Kafal' fruits, in different stages before ripening; Green, Red and Black fruits

The Kafal fruit is also associated with a bird known as the 'Kafuwa', which is not commonly visible but its call is always heard at the onset of summer and locally it is known as 'Kafuwa' and identified as *Cuculus micropterus* Gould. The bird is associated with the fruit of *Myrica esculenta* 'Kafal' and so named 'Kafua'. It is found in the Himalayas, Kashmir,



Fig. 25. The Cuckoo bird or 'Kafua bird, is named after 'Kafal' fruit identified as *Cuculus micropterus*, (website)

The Kafal fruit is also associated with a bird known as the 'Kafuwa', which is not commonly visible but its call is always heard at the onset of summer and locally it is known as 'Kafuwa' and identified as *Cuculus micropterus* Gould. The bird is associated with the fruit of *Myrica nagi*, 'Kafal' and so named 'Kafua'. It is found in the Himalayas, Kashmir,



Fig.26. Fruits of *Myrica esculenta* or Kafal

#### The Story of the 'Kafua' bird and 'Kafal' fruit :

There is an interesting story in the Kumaoni language about the 'Kafua' bird and the 'Kafal' fruit, stated by [17]. Once upon a time, it was the month of Chaita (Summer) in a forest; 'Kafal' fruits were in abundance. A village woman went to collect the fruits with a 'Dala' (Basket), early in the morning and by midday, she had collected a basket full of fruits. So, she returned to her home, as she had to do other household work, so she went outside. Before going, she measured the collected fruits with a 'Tami', a measuring bowl for cereals earlier used in Kumaon and she asked her daughter to take care of the fruits and also warned her not to taste (eat). It was a hot summer day; the fruits dried up, losing their moisture. The daughter sat by the side of the basket to look after it, and she did not taste even a single fruit. When the mother returned in the afternoon, she again measured the fruits and she found them less, as due to the hot sun, the fruits had lost their moisture and dried them. The mother thought that the daughter had eaten the fruits so she hit her hard in her back and unfortunately, the blow was fatal and instantly, she died. Later, in the evening, due to the cold wind, the fruits regained their lost moisture, and when the woman again measured the fruits, the fruits measured as before. It is said that the daughter transformed into a bird called 'Kafua', and since then, she sings 'Kafal Pakko', "Kafal (first two notes). 'Meile ni chakho' (Second two notes), meaning 'Kafal has ripened and I have not tasted it.'

The call of the Indian cuckoo has been transcribed by different people of different regions, differently. The Maharashtrian people of Maharashtra call it "Paos ala". "Paos ala" means "Rain to come", "Rain to come". In Assam, it is transcribed as 'Orange-Pekoe', 'Orange-Pekoe', or 'Bo-Kotako' [18]. It is further required that the transcription of the call of the Indian Cuckoo from other parts of the country and from other parts of the world be collected and supported with a folk tale, if any?

**9. *Rhododendron arboreum* Smith (Ericaceae) Burans, *Rhododendron nilagiricum* Zenk** was found in the Nilgiri hills in south India. was known to be its synonym, but now its status is unresolved species. There are 500 species of *Rhododendron* found in the world, and in India, about 80 species are found, ranging from tiny herbs to tall trees, with small, unnoticed flowers up to big, red, crimson flowers. The Burans tree is 10-15 m high, common 10 above 1500-3000 m, and often associated with *Quercus* sp. and other shade-loving trees, as it grows on the shady side. It flowers from February to May in Kumaon. It has many folk and traditional uses described in [32].



Fig. 27. A tree of *Rhododendron* or 'Burans' with blooming with flowers

The plant is also used in songs, sayings, etc. The flowers are known as symbols of love and affection and are mentioned in Kumaoni songs, which pierce the heart of a lover, and he states: "*Jageshwar dhura buranso phuli chae, mein kasi tipun meri Hansa rishe chae.*" (At the top of the Jageshwar Hill, the Burans have bloomed, but how can I pick it? My sweetheart is angry and displeased with me.) There is also a riddle: "*Par ka bhira Lal padhanik cheli chu kuni, jael dekhi bhali chae kuni, jael ni dekhi, kasi chu kuni?*" (It is said that on the front hillock, a daughter of a woman farmer, named Lali, lives; those who have seen her say that she is pretty and good and those who have not seen her ask, 'What does she look like?' Answer: Flower of Burans. Further, the botany and folk uses of plants have been dealt with in detail [20,22].

**10. *Rubus ellipticus* Smith (Rosaceae). *Hinsau*, *Hisalu*, or Yellow Himalayan Raspberry:** About 100, species of *Rubus* are found in the world, and 50 in India, and in Kumaon, about 7 species are found. *Rubus ellipticus* is an evergreen prickly shrub up to 2 m high and ash-coloured. Fruit is a drupe, a globular succulent, shining, and pinkish-yellow. It is abundant throughout the submontane region from 1500 to 2500 m. Flowering and fruiting & distribution: March to April. In India, it is found in Jammu & Kashmir, Himachal Pradesh, Sikkim, Darjeeling (W.B.), Assam, Meghalaya and also in South India. In other parts of the world, it is distributed in Pakistan, Nepal, Bhutan, South Tibet (China), Myanmar, South China, Southeast Asia and Sri Lanka.

The fruits are eaten by the village boys, as they are pleasant and sweet in taste but short-lived. The stem pit is used in digestive disorders, [22]. It is considered the tastiest and best-flavoured wild fruit next to *Myrica esculenta*. Nowadays, the fruits are sold in the market of Nainital and Bhowali during the summer season, like 'Kafal'.



Fig. 28. The plant *Rubus ellipticus* is full of spines and Whosoever, would like to taste the berries, then he should be ready to be injured by the spines



Fig. 29. The berries look like a golden cap

i. Riddle (Ana): "*Bhidaru bamuna ki sune ki topi.*" [A ragged brahmin (priest) with a golden cap (headwear)] Answer: Hinsau, Actually, the plant has an ashy, dirty withered look and so it is compared with a ragged Brahmin and the fruit is bright golden and taken as a golden cap. It is very difficult to collect the fruits from the shrubby thorny plant. That is why there is a saying in the Kumaoni language, "*Tu khale meri topi mein khoni teri loti*" (You would eat my cap and I would eat your skin). It is certain that one who would try to pick up the fruits (cap) – it is certain that his skin (loti) is deeply scratched and the clothes are torn.

**11. *U. parviflora* Roxb. and *Urtica dioica* L. (*Urticaceae*) *Shisooona*, or Stinging nettle:** There are about 58, species of *Urtica* found in the world and only 4 are found in India, only in the Himalayas. *Urtica parviflora* is distributed eastward to Pakistan, Kashmir, Himachal, Uttarakhand, Nepal, Sikkim while *Urtica dioica* is said to be indigenous to Africa

and Western Asia but now it is distributed in almost many parts of the world., Bhutan and Assam. In most of these regions it is called 'Shishona', 'Shishuna', or 'Shishno'. Possibly, these are the remnant words of an ancient language, which existed in these regions, and most possibly, the language of the 'Khasa', who ruled in these regions in the very early past. The most common are the above-stated two species, which are anthropophilous, i.e., which love humans and are found near them in their habitations. Both species grow preferably in nitrogen-rich soils often found near human surroundings and are known as anthropophilous species, (human- loving species), which like to grow near human surroundings. Shah has worked out in detail its ethnomedicinal uses and the modern uses of stinging nettles. The etymology of 'Shishoona': 'shi' in Kumaoni and Nepali refers to the burning and to the painful sensation and 'shoona', possibly meaning 'there', means "painful sensation is there" [25].

A saying in the Kumaon language is: "*Madua ka roti shishoona ka sag; khache rankara you tero bhag.*" (O'lad, what a pity for your fate that you have to eat the cooked vegetable of the nettle with a bread of 'finger millet' (*Eleusine corcana* (L.) Gaertn.). In early days, it was known to be the food of the poorest people. Another saying is "*Shisoona ja pat ulta le lagu sult le*" (Like the leaf of the stinging nettle, which stings from both sides, lower and upper). It means the wicked people would hurt and harm you if you agree with them or do not agree with them. In Kumaon, earlier it was used as a vegetable, as a cure for rheumatic pain of joints and also for punishing children. In early days, it was used to punish children doing mischief [20,22]. It is now collected from Kumaon for the use of pharmaceutical companies.



Fig. 30. *Urtica parviflora* known Shishuna or stinging nettle



Fig. 31. Cooked as a vegetable, which is nourishing and tasty like the leaves of Spinach



Fig. 32. *Elusine coracana* or Madua bread



Fig. 33. A child is being punished for his mischief'

**12. *Hypericum cernuum* Roxb. (Hypericaceae)**  
**Piunly, Basanti:** The plant is the first to flower after winter, at the onset of the Spring. The flowers are yellow-coloured, hence called 'Piuli' or 'Basanti'. These are used in 'Basant Panchami', a local festival observed on the fifth day of the month of Magha (January-February) to herald the ensuing of Spring.

On this day, people wear a yellow cap or bear a yellow hankie and offer the local deities the yellow flowers, either *Hypericum cernuum*. On the first day of the Chaita month (March-April), a local festival of 'Phool Dei' is celebrated, when every doorsill of the house and the neighbour's house is revered and decorated with the 'Piuli' or 'Basanti' and other available flowers like *Rhododendron arboreum*, 'Burans' and with the leaves of *Prunus cerasoides*, 'Payan'. The 'Basant Panchami' and 'Phool Dei' festivals are dealt with in detail along with the 'Holi', 'Khatarwa Sankrat', 'Nanda Devi', and 'Harela' festivals and the routine domestic rituals, in which different flowers and leaves of the wild and cultivated plants are used [21,22]. On the 'Piuli' flower, there is a phrase, "Bhainsk khapari mein peolik phool" (The flower of *Hypericum* in the mouth of a Bos Babulus or 'Bhainsa'). English phrase, 'A drop in the ocean...'



Fig. 34. *Hypericum oblongifolium*. 'Peoli' or 'Basanti', the first yellow flower to appear after the winters used in the Spring festival or 'Basant' festivals' and 'Phool dei'

### 13. *Nardostachys jatamansi* DC. syn. *N. grandiflora* (DC) Royle (Valerianaceae), Jatamansi, Indian Nard:

It is a well-known medicinal and incense plant from ancient times, known as Mansi or Jatamansi. The plant grows at high altitudes ranging from 3000 to 4000 m in the wet alpine zone in the Kumaon Himalayas. The *Atharveda* (c. 1000-800 BC), it is mentioned as 'nalada' [Sarma, 1969]. Further, it is also mentioned that around 2500 B.C. it was a commodity of export from India to Assyria, Egypt, and Greece under the name 'nardus'. In Mesopotamia, its name has been found in cuneiform wedge-shaped script. [33]. It is speculated and erred that the word 'NARDUS' is likely derived from 'NALADA', the Sanskrit word used in the *Atharveda* and earlier.

It has been reported from the times of Hamurabi, about 2000 BC as the chief ingredient in very precious ointments, as best known from the Gospels [36].

The plant books of the mediaeval period in Germany mention *Nardus indica* as a costly fragrant 'Indian Nard' and there is an interesting reference that *Nardus indica* grows near the river Ganga (possibly Gangotri, the source of the river Ganges) and was brought to Germany by Alexander the Great and the internal and external uses of the plant are also described. The plant is mentioned in the Bible as 'Spikenard' and stated that when groups of people gathered for religious or social functions, they made the burning of incense of this herb [12].

It is well mentioned in *Charak* (ca 100A.D.) & *Sushruta Samhitas* (ca 900-100 A.D.), the main Ayurvedic texts. The Unani physicians had also mentioned its medicinal uses in their ancient books.

The plant is offered to many local deities and there is a folk song entirely based on the plant and the song praises its sanctity and tells about its habitat and habits and other characteristics of the plant and about its environment, where it grows. The plant's medicinal uses and ethnobotany and the song have been dealt with in detail, [26, 31].



Fig. 35. Flowers of *Jatamansi*

### Roman transliteration of the song:

The Song of Jatamansi is as under:

Ke seri mucai pāni ko kool?  
 Ko jaga hunolo 'manshi' ko phool  
 Je jaga hunolo 'néir', 'guggul'  
 Wu jaga hunolo 'manshi' ko phool  
 Je jaga hunolo 'longa', 'dafia'  
 Wu jaga hunolo 'manshi' ko phool  
 Dhen kasa hunolo 'manshi' ko phool  
 Ke ranga ko hunolo 'manshi' ko phool  
 Haria rang ko hunolo 'manshi' ko phool  
 Pingal varana 'manshi' ko phool  
 Safed ranga ko 'manshi' ko phool  
 Ke seri mucai pani ko kûl  
 Ko dhuro phulo 'manshi' ko phool  
 Pinyuri bugiyala 'manshi' ko phool  
 Ku Nanda himala 'manshi' ko phool  
 Bhi uncha himala 'manshi' ko phool  
 Dhen ko tipi lalo 'manshi' ko phool  
 Jo jalo bugiyalo 'manshi' ko phool  
 So tipi lalo 'manshi' ko phool  
 Ko deva cadalo 'manshi' ko phool  
 We deva cadalo 'manshi' ko phool  
 Bhumi ko bhumiya 'manshi' phool  
 Thoti ko thatyalo 'manshi' ko phool  
 Mori ko naryano 'manshi' ko phool  
 Shikhar mulyano 'manshi' ko phool  
 Ko deva cadalo 'manshi' ko phool  
 Yo deva cadalo 'manshi' ko phool  
 Kumbi ki malika 'manshi' ko phool  
 Kailash chadeolo 'manshi' ko phool  
 Shiv parvati cadalo 'manshi' ko phool

*Khutuka hanselo 'manshi' ko phool*  
*Thumuk nachlo 'manshi' ko phool*  
*Sabon ko pyaro 'manshi' ko phool*  
*Sabon ki taraf 'manshi' ko phool*  
*Sufal hai jaiyo 'manshi' ko phool*  
*Var deina hai jaivo 'manshi' ko phool*

#### English translation by author:

Which is the rice-field that refrains from the water channel?

Which is the place where the flower of spikenard will be?

Where the 'nair' (Skimmia) and 'Guggul' (Jurinea) are found.

There will be the flower of 'spikenard'.

The place where there are 'Longa' (Impegan pheasant male) and 'Dafia' (Impegan pheasant female).

There will be the flower of spikenard.

Let's see! What does the flower of 'spikenard' look like?

What would be the colour of the flower of 'spikenard'?

The flowers of 'spikenard' may be green in colour.

The flowers of 'spikenard' may be yellow in colour.

The flowers of 'spikenard' may be of white.

Which is the rice field that not irrigated by the water channel?

At what summit has the flower of 'spikenard' bloomed?

The flower of 'spikenard' at the Pinyuri bugiyala (Pindari meadow).

The flower of 'spikenard' at the Nanda Devi Himalaya.

The flower of 'spikenard' in the high Himalayan Mountains.

Let's see! Who can pick up the flower of 'spikenard'?

The one who would visit the alpine meadows

He would pick up the flower of 'spikenard'.

Who are the deities to whom the flower of 'spikenard' is to be offered?

Here are the deities to whom the flower of 'spikenard' is to be offered.

The flower of 'spikenard' is to be offered to the Lord of the Earth. (Bhumia)

The flower of 'spikenard' is to be offered to the Lord of the Villages. (Thoti)

The flower of 'spikenard' is to be offered to the God of Mori.

The flower of 'spikenard' is to be offered to the summit of Mulyand.

Who are the deities to whom the flower of 'spikenard' is to be offered?

Here are the deities to whom the flower of 'spikenard' is to be offered.

The flower of 'spikenard' is to be offered to the Goddess Kalika of Hat.

The flower of 'spikenard' is to be offered to the Queen of Kumbi.

The flower of 'spikenard' is to be offered to Mt. Kailash.

The flower of 'spikenard' is to be offered to Lord Shiva and Goddess Parvati.

The flower of "spikenard" will laugh like a child.

The flower of 'spikenard' will dance like a child.

The flower of "spikenard" is loved by all.

The flower "spikenard" is found everywhere among the people.

O 'Flower of Spikenard', may God bless you.

O 'Flower of Spikenard' bestows Good luck to everyone.

**Discussion & Conclusion:** Kumaon has its own culture, which includes the living traditions, language, food, medicine, recipes and cuisines, local festivals, and religious rites and ceremonies, among others. The plants and birds and other animals play an important role, mainly the plants, which are discussed as above, in becoming a part of its culture and traditions. In the past these were much used in day-to-day conversations. In food culture Kumaon is also good. Their culture has converted the neglected Dolichos beans or Kulath horse gram, and Bhat, or Black beans into tasty cuisines of Kumaon. However, the author tried to find in this link similar phrases and idioms but he failed. [https://en.wikipedia.org/wiki/List\\_of\\_proverbial\\_phrases](https://en.wikipedia.org/wiki/List_of_proverbial_phrases).

**He only got one phrase on Walnut, i.e., 'Walnuts and pears you plant for your heirs [a]'** ["Meanings and Origins of Phrases, Sayings and Idioms"](#).

The author being a Kumaoni is well acquainted with the Kumaoni language, culture, traditions, festivals, and more. He had watched its environment from his childhood and knew the plants and animals with their Kumaoni names, and it helped him to understand the intricacy of the language as well as the culture. And, for this, he quotes A. Barrea, one of the first promoters of ethnobotany in Mexico, who stated, "*The best ethnobotanist would be a member of an ethnic minority who, trained in both botany and anthropology, would study the traditional knowledge, cultural significance, and the management and uses of the flora. And it would be even better for him and his people if his study could result in economic and cultural benefits for his own community*" [11].

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