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Nutritional Insights Into Of Some Wild Leafy Vegetables Of Rabha Hasong Autonomous Council Area Of Assam, India.

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Abstract: Wild leafy vegetables (WLVs) play a pivotal role in food stuff and higher nutritional, as well as natural medicinal value. Ethnic communities like Rabha tribes consumed leafy vegetables and used to cure various ailments. The main objectives of this research to investigate nutritional insights into some selected wild leafy vegetables in studied area. The proximate composition analysis, as well as consult with standard literature, Samples were analysis by Standard methods. The key findings are wild leafy vegetables content higher nutritional value other than cultivated vegetables. Leafy vegetables are excellent source of antioxidant, many vitamins, minerals and phytochemicals. Leafy vegetables are source of many classes of bioactive compounds like saponins, vitamin E derivatives, alkaloids, polyphenol anthraquinones, phenolic compounds, flavonoids phenolic acid, and anthocyanidins, and they have biological activity. WLVs content high concentration of crude protein, calcium, phosphorous, zinc, but low in crude fat content. WLVs has ethnopharmacological value. Indigenous tribe communities have traditionally used wild leafy vegetables for their medicinal properties, leveraging their nutritional and therapeutic benefits.
Keywords: Wild leafy vegetables, higher nutritional value, Rabha tribes, ethnopharmacological value.

1. INTRODUCTION:

Wild leafy vegetables (WLVs) play a vital role in food stuff, besides their high nutrition profile and natural medicinal uses. Leafy vegetables are good source of protein, many vitamins, dietary Fiber, micronutrients, antioxidant and phytochemicals in our daily diet. Apart from nutrition, leafy vegetables contain a wide array of potential phytochemicals like anti-carcinogenic principles and antioxidant. In nature, there are many underutilized leafy vegetables of promising nutritive value, which can nourish the ever-increasing human population. A large number of wild leafy vegetables collected from natural wild habitat such as perennial, aquatic and annuals are consumed. WLVs plays a pivotal role for promoting human health, environmental sustainability, and upliftment of socioeconomic development of rural areas. Leafy vegetables are recognized for their high nutritional value, providing essential vitamins, minerals, dietary fibre, and beneficial bioactive compounds that are crucial for well-balanced diet and combating malnutrition, as well as micronutrient deficiency globally (Patra et al.,2024). The health benefits linked to leafy vegetables are extensive, including protection from eye related diseases, iron deficiency and oxidative stress. WLVs possess important Phyto pharmacological properties including antimicrobial, anti-inflammatory, anti-diabetic, anti-hypertensive and anti-cancer. A nuanced understanding of their phytonutrients, bioavailability and post harvesting processing will aid in understanding their utility in human health better. of wild leafy vegetables (Sarma and TR, 2024). GLVs are an essential part of the diet in India, offering a wide range of nutritional, pharmacological and medicinal benefits. They are rich in vitamins (A, C, K) and minerals (calcium, phosphorous, Zinc, iron, manganese), and dietary fibre. Wild leafy vegetables contribute significantly to maintain optimal health. the low caloric value of leafy vegetables makes them ideal for weight management and they are excellent source of plant-based nutrients, high in dietary Fiber, low in lipids and rich in folic acid, vitamin C, vitamin K, Mg, and K (Kumar et al.,2020). Leafy vegetables are source of many classes of bioactive compounds like saponins, vitamin E derivatives, alkaloids, polyphenol anthraquinones, phenolic compounds, flavonoids phenolic acid, and anthocyanidins, and they have biological activity. Medicinally importance of some common WLVs such as Amaranthus spinosus L, Boerhoavia diffusa L, Centella asiatica (L), Coccinia grandis (L),

Hygrophilla auriculata (Schumach), Enhydra fluctuant Lour, Ipomoea aquatica Forrsk, Lasia spinosa (L) Thw, Talinum fruticosum, etc. The Rabha Hasong Autonomous Council area of Assam is the treasure house of leafy vegetables. Tribel communities normally collected leafy vegetables from natural wild habitat, as well as selling them in local market. It is reported that indiscriminate collection and various anthropogenic disturbance leafy vegetables are gradually decreases from natural wild habitat. It is realised that due to high nutritional profile, some traditionally used indigenous leafy vegetables nutritional values were evaluated.

2. MATERIALS AND METHOD:

Study area:

The Wild Leafy Vegetables (WLVs) were collected from Rabha Hasong Autonomous Council area of Assam, particularly Rabha dominated village Bhoiskhuli, borjuli, Dudhnoi, Urpad beel, and some local market of studied area, which is geographically located at 25° 50' to 26°.10" N and 90° 00E to' 15" E. They are sharing its boundary East Kamrup district, west Dhubri district, North Barpeta, Bongaigoan and Dhubri district of Assam, India. The study area of Rabha Hasong Autonomous Council, Dudhnoi. Autonomous state covering Joyramkuchi G.P. in Goal Para district to Rani G.P. in kamrup district.

Collection and proper authentication of Plant materials: Fresh young leaves were collected and preliminary phytochemical screening analysis done using standard method. The collected leafy vegetables were identified by consultation with Plant Taxonomist in the Department of Botany, Dudhnoi College, Dudhnoi, under affiliation of Gauhati University, Assam, India. Extensive survey on the literature was done abroad and within country. National and international journals of repute and also online journals and relevant website consulted for review of literature.

Survey Method: A survey was conducted during in the month of March 2024 to 2025 April, using standard structure questionnaire. Social survey in randomly selected tribal villages for study purposes. The major rural market yards in the area were surveyed throughout the year.

Nutritional Value: Some of the selected leafy vegetables on the basis of availability and uses by the people were studied for their nutritional potentiality. The standard method as per AOAC (2016) were followed for then analysis. The nutritional value can be calculated using various formulas, depending on the specific nutrients and parameters being evaluated.

The energy value formula using Atwater system: energy (Kcal) = (protein x 4) + (carbohydrate x4) + (Fatx9)

Proximate analysis of selected leafy vegetables: [Proximate/weende's system of analysis was developed by Haneberg and Stohmann in 1865 at weende's experimental station in Germany]

3. RESULTS AND DISCUSSION:

WLVs are the primary sources of dietary requirements consumed by indigenous communities for supplements and medicine across the studied area. Study reveals that WLVs are play in important role in edible vegetables due to high nutritive value. WLVs are used in different forms such as paste, extract, leaf paste, leaf powder and decoction among the people of rural areas for curing different ailments. Here, our study finds out some common wild leafy vegetables, which have medicinal importance. The present study focused ethnopharmacological potent ten (10) WLVs which are commonly consumed by Rabha tribes.

1. Scientific name: Enhydra fluctuant Lour

Assamese name: halacha xaak

English name: Water cress, Buffalo Spinach, March Herb

Division:

Kingdom: Plantae
Family: Asteraceae
Genus: Enhydra
Species: E. fluctuans

Geographical distribution: Enhydra fluctuans medicinal herbs abundantly found in India especially in North East states. This species is gaining lot of importance from the point of view of therapeutic potentials. The plant species are annual, grown in uncultivated aquatic condition. The taste is bitter and edible vegetables. Helen Cha saak L, known as bitter watercress, is predominantly consumed in Assam.

Description of the plant: Enhydra fluctuans vegetables are grown in moist places. It grows up to 30-60 cm in long**.** This leafy vegetable is popular for its unique bitter taste packed and flavors. But beyond taste, it is also commonly used for various medicinal properties, which includes relaxing muscles, improving sleep, weight loss to soothing stomach pain caused by acidity or indigestion. It is also used for treating skin diseases due to its antimicrobial properties. **Nutritional value**: It contains higher amount of protein and (β) beta carotene. The phytochemicals substances are higher number of flavonoids, tannins, saponins, Sito- sterols, stigma sterol etc. alkaloids, enhydrin have medicinal properties. **Antioxidant properties:** Antioxidant act inactive of harmful free radicals and helps improves immunity against infections. It prevents any kind of inflammation of the body. **Anti-inflammatory properties**: Recent studies reveal that it has anti-inflammatory effects, potentially benefiting individuals with conditions such as joint paint. **Digestive health:** The leaves extract is used for hepatic protective properties. It helps in metabolism and control blood sugar level. This vegetable also benefits in diarrhea. **Other uses**: It has antioxidant, antimicrobial, anti-inflammatory, analgesic, antioxidant, cytotropic activity, CNS depression activity, antidiarrheal activity, anti-cancer, hepatoprotective, anthelmintic and cytotoxic activity. The leaves extract is used for hepatic protective properties. This species has lot of properties such as anticancer drugs, anti-diabetic, anti-inflammatory, anti-diarrheal. These activities can be attributing mainly to the presence of Phytochemical such as alkaloids, tannins, phenols, flavonoids and carbohydrate. It helps in digestion and improves appetite. It can cure various skin diseases like prick, leprosy, small pox born etc. other health benefits are improving brightness of skin. It helps in metabolism and control blood sugar level. This vegetable also benefits for bronchitis, asthmas diseases. Traditionally, this vegetable is used to treat various diseases by different caste and communities of Assam. It is used to control blood sugar level in Assam Meghalaya boarder of Garo hills.

2. Scientific name: Ipomoea aquatica Forrsk.

English Name: Water amaranths, Water Spinach, River Spinach, Bind wood, blue morning glory, Japanese morning glory, Chinese Spinach, Ipomoea etc.
Assamese name: kolmou xaak
Kingdom: Plantae
Order: solanales
Family: Convolvulaceae
Genus: Ipomoea
Species: I. aquatica

Geographic distribution: Ipomoea aquatic, the origin is unknown but it is believed that it is native in South East Asia. It is found in tropical and sub-tropical area around the world. In India, it is also found in Assam and North east. Ipomoea spp. is soft stemmed aquatic or semi aquatic perennial plant. It is found in wetland, Pond and low-lying damp places or field water. Sometimes it is grown in damp place also. It is abundantly flourished in during rainy seasons. It has nearly 500 species in globe. Ipomoea aquatic is a water spinach that grows like a weed along paddy fields and river banks. It is known to be a go to weight loss food source, being low in calories and fats but rich in vitamins, antioxidants and minerals. For instance, 100 grams of Ipomoea aquatic carries only 19 calories. This green is also known to help prevent osteoporosis and anemic caused by iron deficiency.
Description of the plant: Creeping or floating aquatic herbs, stems hollow, rooting at the nodes. Leaves alternate, varies in form, sally oblong-lanceate, base hastate, petiole 6-10cm. long. Flowers purplish-white, solitary or few in cymes. Ipomoea aquatic is an annual, aquatic plant, generally grown in wetland, pond and swamp area. **Nutritional value**: It has good source of various Chemical substances are namely vitamin A, vitamin B, vitamin C, vitamin E and it has contained carbohydrate and protein. The essentials minerals are phosphorous, potassium, iron, sodium, calcium, manganese, copper, and zinc and rich source of vitamin A, C, B6, B12 and vitamin K. The water content 90%, Protien3%, Carbohydrate 4%, fats 0.9% and dietary fiber 4% only. **Antioxidant properties:** It has detoxifying properties and is rich in anti-oxidant which helps in fighting cancerous cell. It also helps reducing cholesterol level in body. It has anti-oxidant properties which fight against free radical substance which causing ageing. Anti-oxidant substances destroy free radicals and prevent aging. It has detoxifying properties and is rich in anti-oxidant which helps in fighting cancerous cell. **Eye-sight:** The vitamin E improves eyesight. Water spinach is an excellent source of vitamin A and beta-carotene which are very useful for eye sight. The vitamin C also helps in our immune system. **Digestive health:** It has properties of detoxifications. **Other uses**: It has phytoremediation properties. It is use for treatment of piles, nose bleeds, high blood pressure, jaundice and nervous debility. It has properties of reducing of blood pressure. Water spinach is an excellent source of vitamin A and beta-carotene which are very useful for eye sight. The iron helps in prevent anemia and other related diseases. It has detoxifying properties and is rich in anti-oxidant which helps in fighting cancerous cell. It reduces low density level of the body as well as keeps heart healthy. It has properties of detoxifications. It is reported that it increases sperm count and healthy sperm productions. It reduces virginal infections such as pus cells. It is very useful in lactation mothers. These vegetables consumed health benefits are reduced obesity and Cholesterol level. It is reported that it has the properties to increase sperm count. Traditionally, other medicinal uses are such as prevent constipation due to sleep disorder, stings of insect, itching ring worm, small pox and improves mammary gland. The soft tender leaves, hollow stem is used as an edible vegetable part.

3. Scientific name: Lasia spinosa (L) Thw.
Assamese name: sengmora xaak sengamur, jonga xaak
Bodo name: sibru,
Ahom: faki-sik-nam
English name: Spiny Arum.
Division: Angiosperms
Kingdom: Plantae

Order: Alismatales
Family: Araceae
Genus: Lasia
Species: L. spinosa

Geographical distribution: Lasia spinosa perennial herbs that is mostly distributed in India, Sri Lankan, south East Asia and Malaysia. It is mostly found in Asia and Newgunia. It is an evergreen, herbaceous perennial plant growing 1-2 meters tall, spreading by means of a long, creeping, stoloniferous stem. In Assam, this plant is commonly grown in near the site of wetland, particularly channel, swamp area, riverbanks, ditches, moist places etc.
Description of the plant: The plant is height up to 1 to2 meter, leaf stalk thorny. Leaves rosette, simple, lanceolate, sagittate, and thorny along the veins, 30-45cm long, up to 25cm wide. The plants are normally collected from natural wild habitat. Sengmora xaak, also known as "sibru" in Boro language and spiny Arum in English, grows wild in marshy areas in different part of Assam. Rich in antioxidant and dietary fiber, it is believed that to have healing properties for open wound and is also known to help patient suffers from hemorrhoids, diabetes and even hypertension. **Nutritional value:** L. spinosa. are good sources of carbohydrate besides it has bioactive phytochemicals compounds. This contributes to several potential health benefits such as improves liver function. **Weight management:** Due to their low carbohydrate and fat content, they're very low in calories, making them an excellent food to help promote a healthy body weight. It reduces obesity and weight loss. It has rich dietary fiber which may have potential health benefits of weight management. **Chemical constituents:** It contains bio active Phytochemical such as alkaloids, sterols, terpenoids, tannins and phenols, flavonoids, glycosides, amino acids, volatile oils, saponins, mucilage, carbohydrate, fats and oils, phenolic compounds, polyphenols, Ascorbic acid etc. It has rich dietary fiber which may have potential health benefits of weight management. **Other uses**: Lasia spinosa, ethnomedicinally, is the entire plant used in folklore medicine for many medicinal uses such as constipation, cancer and rheumatism. the plant possesses the major pharm logical properties including anthelminthic, anti-bacterial, anti-inflammatory, antioxidant, anti-diabetic, anti-tumors and various other diseases preventives factors. The young leaves and petioles cooked and used as vegetables. It prevents colic pain and abdominal troubles. It reduces bad low-density lipids (LDL) level and keeps heart healthy and fit. It is a blood purifier, increase hemoglobin level and protects lungs. Other health benefits are cough, cough with bleeding and asthmas diseases. It is useful to cure piles, fistula, uric acid, urinary troubles, sexual weakness, and muscle contraction of uterus. It has the properties of reduce obesity. It is suggested that it should not be consume those who have allergy because due to the presence of refides which stimulates itching in oral cavity and allergy. It should be consumed very less amount during pregnancy period and lactation mothers. Traditionally, it is widely used staple vegetables in various parts of the world such as Assam, Arunachal Pradesh, Sikkim, west Bengal, south India, Asia, Vietnam, Thailand, and Malaysia. The part of the stem is used in medicinal purposes in various parts of the world.

4. Scientific name: Talinum fruticosum
English name: Ceylon spinach/ garden spinach
Assamese name: Pirelli paleng
Kingdom: Plantae

Order: Caryophyllales
Family: Talinaceae
Genus: Talium
Species: T. fruticosum

Geographical distribution: This plant species is native to Mexico, west America, Central America and much of South America. The plant grows erect, reaching a height 0f 30-100cm. it bears small, pink color flower and broad fleshy leaves. It is an herbaceous perennial plant. It is widely grown in tropical regions as leafy vegetables. The plant is grown in not confined water area, which can be grown in drought or arid region in various parts of Assam.
Description of the plant: It is a perennial, herbaceous plant. Leaves are thick and greenish in color. Leaves are slightly bitter in taste. Flowers are very small and pink in color.
Nutritional value: The Phytochemical constituents such as alkaloids, flavonoids, saponins, tannins, protein and carbohydrates. It contains minerals such as calcium, magnesium, potassium and enrich amount of beta carotene. The vegetable has Phyto nutrients such as carotenoids, Phytosterols, flavonoids, glycosides, allicins, phenol, terpenoids, and steroid. As leafy vegetables, T. fruticosum is rich contain of vitamins, including vitamin. A and C, minerals such as iron and calcium it has been uses as an herbal medicine. Talinum fructicosum is extremely nutritious vegetables. The excellent source of calcium and phosphorous, both of which are essential for bone health. It is also good source of vitamin A, which is beneficial for eye sight. **Digestive health:** The leaves are good source of calcium, magnesium, potassium, and beta carotene which contributes to several potential health benefits such as nutritious and easily digestible and promotes healthy digestion. **Other uses:** It improves sexual debility and increase fertility of man. It removes physical weakness. It keeps strong lung function. It is very useful in any kind of inflammation of the body. This vegetable consumes regularly in large amount its feelings vomiting and respiratory short breathiness. Traditionally, the leaf juices are used in skin injury, inflammation etc.

5. Scientific name: Leucas aspera (Roth) Spreng
Assamese name: Dronful.
English name: common Leucas
Kingdom: Plantae
Order: Lamiales
Family: Lamiaceae
Genus: Leucas
Species: L. aspera
Geographical distribution: Leucas aspera is a kind of weed very small plant species within the Genus Leucas and the family Lamiaceae is found in throughout India, it is known in its various medicinal properties L. aspera commonly found in India and Philippines as well as the plains in Mauritius and java. It is abundantly distributed in states North East, West Bengal, Karnataka, Maharashtra, Kerala and Tamil Nadu in India. It is also distributed other countries like Bangladesh, Nepal, Sri Lanka, Philippines, Malaysia, China and Indonesia.

Description: common Leucas are distributed uncultivated agricultural land. It is an herbaceous plant. Herbs stem obtusely quadrangular, leaves ovate flowers white in verticillate inflorescence. It reaches 15-60 cm in height, leaf thick dark green in color, flowering seasons July-October. Generally, it is grown in cultivated agricultural farmland, but it is considered as weed. The tender leaves are used as vegetables. It has very negligible side effects. **Nutritional value**: The leaves are triterpenoids, deanolic acid, ursolic acid, nicotine, sterols, glycosides, diterpenes, and phenolic compounds. Common Leucas are a good source of vitamin B-complex and vitamin K, as well as minerals such as zinc, iron, and chromium. The Phyto nutrients are carotenoids, beta carotenoids, tocopherols, triterpenoids, olionic acid, benzoic acid, glycosides, flavonoids and tannins. **Antioxidant properties:** common Leucas contain rich antioxidant, which help protect the body cells from harmful free radicals. **Anti-inflammatory properties:** Some studies reveal that**:** common Leucas may have anti-inflammatory effects. **Antifungal, antimicrobial and cytotoxic:** It has antifungal, antimicrobial and cytotoxic activities. **Traditionally uses**: It is an herb, leaves stem branch, and flower and root are used for medicinal purposes. Used in food to provide fragrance to food. It has antifungal, antimicrobial and cytotoxic activities. It is used for prevent worms. This plant species has antifungal, prostaglandins inhibitory, anti-oxidant, anti-microbial, antinociceptives and cytotoxic activities. It has ability to reduce fever. The juice of the flowers can also be used for intestinal worm infections in children. Leaf juice is used as appetizer as preventive for pox and as vermicide. Leaf juice is given as cooling agent (about 20ml twice daily). It is also used for sinus troubles, rheumatism and skin diseases. Decoction of 6-7 leaves of it and 10-12 leaves of Osmium sanctum mixes with honey is given in hoping cough. It improves immunity. It is also used to correct irregular menstruation cycle and Dysmeneria. It protects or resists lymphoma tumors. It is traditionally used to cure insect bite, Scorpion bite and Snake bite. Traditionally it has been used in asthma, respiratory troubles, and diabetes. It is reported that it has no side effects, so it can be consumed all age groups of people. Even high-pressure patient also can consume as a green leafy vegetable. But regular consumption cans bad impact in health.

6. Scientific name: Polygonum esculentumD. Don
Assamese name: mduxuleng
Creeping smartweed, Chinese knotweed (Eng)
Kingdom: Plantae
Order: Caryophyllales
Family: Polygonaceae
Genus: Polygonum
Species: esculentum.

Geographical distribution: It is available in East Asia, Himalayas, Assam, and Nepal etc. which are grown wildly and abundantly throughout Assam particularly during spring season in damp or shady places.
Description of the plant: Polygonum esculentum is a perennial edible shrubs plant, locally known as modhuxuleng. It can grow up to 0.50 meters tall, size of the leaf is 5-10cm long with a shape of oval blade and tip is pointed. Stems are reddish green in color and soft. It is harvested from the wild for local use as a food. It is available in East Asia, Himalayas, Assam, and Nepal etc. which are grown wildly and abundantly throughout Assam particularly during spring season in damp or shady places. **Nutritional value:** Chinese knotweed is a good source of protein, carbohydrate, as well as minerals such as calcium

and phosphorous. **Antibacterial and anti-fungal activities:** It has antibacterial and anti-fungal activities. **inflammatory properties:** Some studies reveal that Chinese knotweed may have anti-inflammatory effects. **Other uses:** Traditionally this herb used for medicinal purposes as well as tasty leafy vegetable. It is very useful for dysentery and gastro intestinal disorder. It is said to be good for lung ailments like bronchitis, cough also. It is reported that it has diuretic, cooling, tonic and laxative properties. It is used for dysuria and hemorrhoids. It has antibacterial and anti-fungal activities. It can prevent bad cholesterol that is low density lipid (LDL). Traditionally, it has been used to treat eye related diseases.

7. Scientific name: Ipomoea batatas Linn. (Convolvulaceae)
Assamese name: mitha alu
English name: sweet potato leaf
Kingdom: Plantae
Family: Convolvulaceae
Genus: Ipomoea
Species: I. batatas

Geographical distribution: The sweet potato actually a perennial herb plant is known only in cultivation. It probably originated in tropical America. Sweet potatoes are cultivated throughout the tropics. The crop can be grown in a wide range of soils. Sweet potatoes are cultivated throughout the tropics. The major producers are Africa, China, Indonesia, India, Korea, Japan, southern united states, Polynesia and New Zealand. It grows best where the mean temperature is around 25 c or higher. The crop can be grown in a wide range of soils. A well-drained sandy loam with a sunny climate and a liberal supply of moisture in growing seasons is ideal for cultivation of the sweet potato. This is a short-day plant and a photoperiod of 11 hours or less promotes flowering. The plant has an extensive fibrous root system.
Nutritional value: The leaves contain vitamin B, beta carotene, iron, calcium, zinc and protein. It has good source of polyphenols compounds. The presences of antioxidant substance contribute to several potential health benefits. Each tuber consists of large amounts of parenchyma cells, the vascular tissue and Latex vessels. The outer region is called the periderm and it replaces the ruptured epidermis. About 70% of the weight of the fresh tuber is due to moisture. The solid matter consists of starch, sugars, proteins, vitamin A and C, small amounts of fat and minerals. **Antioxidant properties:** Sweet potato leaves contain antioxidant, which help protect the body cells from damage caused by free radicals. Leaves contain fifteen types of indocyanine and six types' polyphenolic compounds. **Digestive health:** Sweet potato leaves can promote healthy digestion and help prevent constipation. Sweet potatoes are high in fiber which can improve gut health. **Helps manage diabetes:** the glycemic index of sweet potatoes is low, which means they release sugar slowly into the blood stream. This continuous phase of mixing sugar in the blood helps reduce high blood sugar levels. **Keeps heart healthy:** sweet potatoes fiber and antioxidant help lower the risk of cardio vascular heart disease and the high content of anthocyanin in purple sweet potatoes helps lessen the risk of coronary disease. **Enhance brain function:** Purple-fleshed sweet potatoes are beneficial for maintain regular brain activity. Purple-fleshed sweet potatoes include anthocyanin, which can protect the brain by lowering inflammation and avoiding mental deterioration. **Healthy vision:** Sweet potatoes are rich source of beta-carotene, which is a type of vitamin A. in our body; beta-carotene

is converted into vitamin A and used to produce light detecting receptors inside our eyes. **Prevents risk of cancer:** Purple-fleshed sweet potatoes are critical in the fight against cancer. Carotenoids found in Purple-fleshed sweet potatoes leaves, can help prevent cancer, particularly prostate cancer in man. **Other uses**: The tubers are used for manufacturing starch, flour, glucose, or alcohol. The leaves of Ipomea batatas have anti-oxidation, antimutagenicity, anti-inflammation and anti-carcinogenesis properties. It has promoted blood coagulation. Due to their favorable nutrition profile, leaves may provide several potential health benefits such as it supports corneas muscle and protect from eye cataract. It promotes peristalsis movement and prevents constipation. It has anti-bacterial properties. This contribute prevent food poison which are caused by.E. Coli. Sweet potato is a vegetable with large, fleshy edible roots. These tuberous roots are used as an important source of food in many parts of the world. They can be eaten after boiling or roasting. The tubers are also used for manufacturing starch, flour, glucose or alcohol.

8. Scientific name: Hydrocotyle sibthorpioidesLam (water Pennywort)/Centella jevinica.
Assamese name: Horu manimuni
English name: lawn mass pennywort
Kingdom: Plantae
Order: Apiales
Family: Apiaceae
Genus: Hydrocotyle
Species:H. sibthorpioides

Geographical distribution: Hydrocotyle sibthorpioides is a small plant native to South Eastern Asia. It is generally grown in fertile soil. It is a 30-50cm.length climbing annual plant.
Description of the plant: The lawn mass pennywort stems are slender, green to reddish-green in color, connecting plants to each other, creeping mode of plants. It has long stalked, green, rounded apices which have smooth texture with palmately netted veins. The leaves are borne on pericldial petioles. The flowers are white or pinkish to red in color. **Nutritional value:** The leaves contain Asiatic side glycosides, pectic acid, ascorbic acid, tannins, resin, fats and oils substance. **Other use**: The whole plant is used vegetable as well as medicinal purposes. Hydrocotyle spp. has been used for medicinal purposes in Asia. Traditionally it has been used as bone fractures. It has been external use for wound healing. It is widely used for gastro intestinal, dysentery disorder, abdominal pain. It enhances the memory power. It promotes cure of internal ulcer in the body. It can cure any kind of skin related diseases such as pimple, ringworm, itching, and eczema, leprosy and allergy. The leaves have potential benefits of liver cirrhosis, blood pressure, the urinary tract infection of female, irregular menstruation cycle and act as contraceptive. It promotes sexual activity in male. Traditionally, the leaves juice has been used to treated skin ringworm, itching and any kind of skin related diseases. The leaves curries are used to prevent bad smell of sweat. It is preferable in empty stomach of the morning time. It is believed that the leaves juices of one drop can enhance eyesight. It is preferable to use from middle age. The leaves juices of 20-25 gram with honey can improve heart function.
It is suggested that it should not be consume new born baby and pregnant women. Moreover, it should not be consuming large amount those who are suffering from liver diseases.

9. Scientific name: Solanum nigrum L
Assamese name: Laskowski
Kingdom: Plantae
Order:
Family: Solanaceae
Genus: Solanum
Species: S. nigrum

Distribution: S. nigrum is found mainly around waste land, old fields, ditches, and roadsides, fence rows, or edges of woods and cultivated land.
Description of the plants: Solanum nigrum Linn. (Sn) commonly known as Black Nightshade is a dicot weed in the Solanaceae family. It is an Annual branched herb of up to 90 cm high, with dull dark green leaves, juicy, ovate or lanceolate, and toothless to slightly toothed on the margins. Flowers are small and white with a short pedicellate and five widely spread petals. Fruits are small, black when ripe. S. nigrum is found mainly around waste land, old fields, ditches, and roadsides, fence rows, or edges of woods and cultivated land. **Nutritional value:** Solanum nigrum contain good source of Acetic acid, tartaric acid, malic acid and citric acid were identified as the major nutrient component. Six new steroidal saponins collectively called solanigrosides and a one known saponins degalactotigonin were identified. It contains protein, fat, calcium, phosphorous, iron, riboflavin, niacin, and vitamin C. **Antimicrobial properties:** some studies suggested that it has antimicrobial properties. **Antioxidant properties:** A Solanum nigrum content carotenoid, phenolic, flavonoids and tannins content has been reported, indicating the fragility of this plan **Hepatoprotective Effects**. nigrum L. (SN) is an herbal plant that has been used as hepatoprotective and anti-inflammatory agent in Chinese medicine. **Hypotensive potential** S. nigrum L which has been used as an antipyretic and anticancer in folk medicine was investigated for its antihypertensive properties. **Other uses**: it is a nutritious leafy vegetable grown for its tender greens and ripe fruits to be used in a dried form. It contains protein, fat, calcium, phosphorous, iron, riboflavin, niacin, and vitamin C.

10. Scientific name: Houttuynia cordata Thunb
Assamese name: Mochundori
English name: Fish mint

Division: Angiosperms
Kingdom: Plantae
Order: Piperales
Family: Saururaceae
Genus: Houttuynia
Species: H. cordata.

Geographical distribution: It is flowering plants habitat native to Southeast Asia. Which is indigenous to north east India and the species first recorded by Martinus Houlluyan and hence named as Houttuynia. **Description of the plant**.: H. cordata is a creeping herb 30-60 cm high, with thin, spreading rhizomes. The stems are smooth, green or sometimes purplish red in color. In generally grows in shadow moist damp places, perennial plant. It is reported that it has anti-viral and other germ kill properties. It is an herbaceous perennial plant. Leaf blades are broadly ovate or ovate-cordate, 4-10cm long, 2.5-6cm. wide, thinly papery, densely glandular, sally glabrous. Flowers are naked with dense spikes. **Nutritional value:** The phytoconstituents are Aristo lactams, ox aporphines, 5,4-dioxoaporphines, Amides, Benzenoids, indoles, ionone's, phenolic compounds, steroids, triterpenoids and volatile oil. **Antioxidant properties:** H. cordata contain rich source of antioxidant, which support the body cells from damage caused by harmful free radicals. **Digestive health**: It improves digestive system. However, it inactive harmful bacteria. The leaves juices are beneficial to cure gastric acidity and heart burning. The leaves are recommended for the treatment of measles, dysentery and sexually transmitted diseases gonorrhoea. Tender parts of stem and leaf are eaten in indigestion problem and to purify blood, as remedy for urinary troubles like burning sensation etc. H. cordata is eaten as a medicinal salad for lowering the blood sugar level. **Other uses**: H. cordata has immense therapeutic value. The medicinal herbs used to treat pneumonia, hypertension, constipation and hyperglycaemia via detoxification. This plant species is used to strengthen immune system. It is also used snake bite and skin disorders. Leaf juice or decoction is taken for the treatment of cholera, dysentery, curing of blood deficiency and purification of blood. It is also used eye troubles, skin diseases, haemorrhoids, relieving fever, resolving toxin, swelling, draining pus, promoting urination and in certain diseases of female. It cures upper respiratory and lower respiratory infections. It improves and efficiency of liver function. It reduces obesity and prevents urinary tract infection. It is traditionally use by tribal peoples of Assam, particularly missing tribal for lactation mothers. The leaves juices are beneficial to cure gastric acidity and heart burning. The leaves are recommended for the treatment of measles, dysentery and sexually transmitted diseases gonorrhoea. This vegetable has properties of correct irregular menstruation and removes toxin substances from the body. In the North east region of India, whole plant is eaten raw as a medicinal salad for lowering the blood sugar level. The young shoots and leaves are eaten raw or cooked.

CONCLUSION AND FUTURE PERSPECTIVE:

Based on the results obtained in the present insight investigation into wild leafy vegetables, it may be concluded that the WLVs content higher level of nutritional value, which offer optimal health benefits. The article focuses on the significance of WLVs. Hence, WLVs are a component of the human diet and promoting health benefits substances and food security, generate employment and reduce poverty, malnutrition and micronutrient deficiency. But due to lack of scientific management and other anthropogenic disturbances gradually decline GLVs from natural habitat. Further research is urgent to need insight exploring of ethnopharmacological characteristics of wild leafy vegetables.

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Authors contributions: All authors participate in research work, data collection and analysis and wrote final version of the manuscript.

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