https://doi.org/10.33472/AFJBS.6.2.2024.86-98



The Significance of Wild Vegetables and Fruits toa Diet That Is Nutritious and Well-Balanced

Dr. Surendra Reddy Vinta¹, Dr. Suhas Ballal², Ioana Roxana Codru³, Dr. Raman Batra⁴,

DrM.R.Suchitra*5, Hala Baher6

¹Associate Professor, School of Computer Science and Engineering, VIT-AP University, Amaravati, Andhra Pradesh,India. Email: <u>vsurendra.cse@gmail.com</u>

²Assistant Professor, Department of Chemistry and Biochemistry, JAIN (Deemed to be University), Bangalore, Karnataka, India, Email Id- <u>b.suhas@jainuniversity.ac.in</u>,Orcid Id-0000-0002-6041-8332

³Clinical Emergency Hospital Sibiu, Romania, Lucian Blaga University Sibiu, Romania.Email:<u>ioanacodru.ic@gmail.com</u> ⁴Executive Vice President, Department of Mechanical Engineering, Noida Institute of Engineering & Technology, Greater Noida, Uttar Pradesh, India, Email Id- <u>ramanbatra@niet.co.in</u>.

*⁵Assistant Professor, Department of biosciences, SASTRA(SRC) ,Kumbakonam, Thanjavur, India. Emai id: <u>dietviji@yahoo.com</u>, Orchid: <u>https://orcid.org/0000-0001-6055-7589</u>

⁶Department of Radiology and Ultrasonography Techniques, College of Medical Techniques, Al-Farahidi University, Baghdad, Iraq. Email Id: <u>hala.baher@uoalfarahidi.edu.iq</u>

Corresponding author (*):vsurendra.cse@gmail.com

Article History Volume 6,Issue2, Feb 2024 Received:17Dec 2023 Accepted : 08 Jan 2024 Published : 07 Feb 2024 doi: 10.33472/AFJBS.6.2.2024.86-98

Abstract

Investigating alternate food sources is crucial as the globe faces more and more problems with nutrition and food security. Since ancient times, wild fruits and vegetables have been an essential component of human diets, and they now provide a wealth of health advantages in contemporary civilizations. The current investigation looks at the identification, documentation, and exploration of wild edible fruits used by various indigenous people in four Tripura districts: Khowai (forests of Tablabari, Tulsigarh, and Subalsingh), West Tripura (forest of Barmura), Sipahijala, and Dhalai (forests of Manu, Ambassa). In order for the Tripura tribespeople to maintain a balanced diet and live a healthy lifestyle, wild fruits must continue to be a primary seasonal food. In the aforementioned area, they are easily accessible these fruits are very significant to civilization because of their gastronomic, nutritional, and medicinal properties. Exploration, documentation, preservation, and public awareness of wild fruits are essential because they provide humans with accessible kinds of sustenance. From 13 distinct families, a total of 15 edible wild fruits were found in this area. It is urged to conduct further study and advocate for the use of wild plants in conventional cuisine in order to create a world that is healthier, greener, and more culturally diverse.

Keywords: Nutrition and Food Security, Standard Treatment, Untamed Little Berries.

1. Introduction

Traditional herbs are essential to the sociocultural healthcare system and rural livelihood many indigenous communities in the area. Diet, fuel, and health care are all provided by herbal medicinal plants, which have a significant impact on biodiversity, the environment, and biological heritage (Mabhaudhi*et al.*, 2018). Herbal plants have been used as a source of

cures by rural tribal tribes for a long time. These common plants for treating various illnesses were a gift from nature to humans(Calder, 2018). Women have always been the primary manufacturers of plant-based pharmaceuticals in society Women protect economically significant plant species, such as those that are used for food, traditional medicine, and dye, etc., by carrying out various domestic tasks. Nearly 45,000 species with therapeutic qualities have been discovered in India (Gimigliano and Negrini, 2017). Traditional meals are being replaced by so-called "energy-dense diets," which are often high-fat, salty, and that's sweet diets, as part of the nutritional transition (Abah et al., 2015). A study found that respondents were more concerned about not having enough food than about having too much and that basic, starchy staples were what they needed. These foods consequently contributed to an unbalanced diet in terms of nutrients(Abbaset al., 2017). There are no doubt the poor economic conditions (which show restricted access to food) of demographic groups adhering to repetitive diets contribute to distorting and limiting the dietary alternatives available to them. GLVs are vegetables whose early shoots, leaves, and blossoms are edible. Due to their many health advantages that demonstrate their vitamin and mineral richness, green vegetables are frequently referred to be "protective foods" in human diets necessary nutrients include dietary fiber, minerals, amino acids, and fatty acids, as well as several types of necessary bioactive substances. Antioxidants, dietary fibers, minerals, 2-linoleic acid, and vitamins are mostly found in green leafy vegetables. Ferric ions are reduced by antioxidants, which also lessen oxidative stress. Dietary fibers stimulate insulin secretion and slow down the absorption of carbs. Magnesium and phosphorous are two minerals that can prevent gestational diabetes. Within skeletal muscles, 2-linoleic acid regulates insulin sensitivity and phospholipid bilayer composition (Bošnjaković,2012).Vitamins like -tocopherol (vitamin E), -carotene (vitamin A), Because of poverty, increasing crop prices, unemployment, natural disasters, dwindling agricultural land, and rising population, a food crisis has evolved in affluent nations. People employ wild edible plants as a result, which are an excellent source of food and nutrients for their daily activities(Pradeepkumar and Divya, 2022).Ingesting wild edible fruits is a crucial part of maintaining human health when there is a food shortage or when cultivated food plants are not growing well. With fiber, carbs, proteins, and vitamins, these wild fruits and vegetables are nutrient-dense and offer important nutrition only to humans. Fruits are also used as an astringent, diuretic, anthelminthic, and demulcent agent, as well as for coughs, chest problems, sore throats, lung, and spleen illnesses. Fruit tissue can be used as an emollient for the skin (Bongaarts, 2009). It performed a scoping/mapping assessment to determine whether underutilized regional, indigenous, and traditional plant varieties may assist in alleviating the damaging effects of the nutrition transition by enhancing food and nutrition security. Increasing the consumption of processed foods as a means to meet the nutritional demands of households and protect the health of future generations (Nirmala et al., 2022). To determined seafood made from farm-raised and wild salmonids included more VLC PUFA, or omega-3 very-long-chain fatty acids, than other salmonids sold commercially. It was believed that since farm-grown fish consumed controlled food that had been boosted with fish oil PUFA, their levels of omega-3 fatty acids LvPcl could be equivalent to those of wild fish. Fish fillets' lipid composition, fatty acid composition, and omega-3 levels of polyunsaturated fatty acids (PUFAs) were all quantified. Stores used to only offer wild salmon (both brown and rainbow) but today find farm-raised salmon from Omega-3 very long chain PUFA in a salmon sample that had been available on the marketplace while taking into account regardless of if they were wild or farm-raised. It was thought that fish grown on farms would have levels of omega-3 VLC PUFA that are comparable to those seen in wild fish since they eat balanced feed that has been supplemented with fatty acids with an

omega-3 profile PUFA. Pieces of fish were evaluated for fat amount and omega-3 fat levels

(Papastavropoulou*et al.,* 2023).It was hypothesized that humans have depended largely on the gifts of nature for both food and medicine, boosting dietary variety and lowering the chance of hunger. They were utilized for curing a wide range of illnesses in traditional Indian medicine, including Ayurvedic, Unani medicine, or Delta. Most of those untamed, unused species may be found in Ladakh, a frigid area in India. These herbs are essential for helping the inhabitants augment their food (Atta-Delgado *et al.,* 2023). GLV has therapeutic properties as well because of its extensive bioactive and nutritional potential. The nutritive and bioactive potential of GLVs may be considerably changed by various processing methods.(Baumgärtel*et al.,* 2020) Since little research has been done, GLVs have been considered a food fortification agent. All of these data imply that raising GLV consumption may offer the required nutrients for healthy growth as well as an appropriate defense against illnesses brought on by deprivation (Waliat*et al.,* 2023).

Chakma, (2022) aimed to be conducted on a flora that includes a wide range of important culinary ingredients. Wild plants that are tasty and high in nutrients are a valuable resource. Mann and sooch, (2022) achievedecosystemby way of the substance of global security in nutrition and food. They are at present in serious peril since a multitude of creatures collaborate to provide us with a wide variety of veggies, fruits, and meat that are essential for a diet that was nutritious and well-rounded. Medical science still has a crucial place in wellness. Equally planted & untamed ecosystems are employed for extracting plants for therapeutic purposes. Many societies rely on natural resources produced from environments for living as well as for therapeutic and historical uses. Kehinde et al., (2020) performed individuals are increasingly looking for foods that are both healthy and healthy. Customers want more nutritious options that are both safe and friendly to the environment. Blackcurrant fruits are an excellent supply of biologically active substances such as pigment called polyphenols and the antioxidant vitamin C. Blackcurrant fruits now contain different.Królikowski et al.,(2020)performed by investigating the primary biological characteristics of flaws, it investigates how they could offer our surroundings a durable and full of nutrients alternative. Ten species of insects—In terms of worldwide consumption, the most prevalent orders of insects are: Blattodea, Coleoptera, Diptera, Hemiptera, Hymenoptera, Isoptera, Odonata, and Orthoptera. Bioavailability and bioaccessibility of protein, essential amino acids, monounsaturated lipids, minerals, vitamins, chitin, and the main macronutrients and bigger components are all evaluated.Kingsley*et al.*,(2022) suggested that Based on the concept of meals and nutrition-sensitive crops, this overview aimed to clarify the characteristics of Washoku by comparing them against SHD. The materials were grouped under 20 sections that corresponded to those that the Food and Veterinary Organization of the UN had published on nutrient-sensitive food and farming techniques. The categories of biodiversity for food and nutrition and nutrition-sensitive value chains together accounted for almost 17% of the 163 SHD parts.Brahma*et al.*, (2022) determinedalthough eating correctly is the main determinant of how healthy our lives are, the food we consume needs to be prepared to provide the vitamins and minerals needed to support one. Nowadays, analyzed high-energy and low-nutrient dinners are favored over customary, nutritious dietary regimens, resulting in the main contributors to long-term health problems associated with obesity and poor dietary choices. A "triple burden" includes malnutrition, eating disorders, and malnutrition is the effect of this. Potatoes are regarded to be the greatest solution to cure nutritional deficiencies, often known as "covert starvation," as they may include a lot of vitamins, minerals, dietary fibers, and plant compounds. Stofaet al., (2022) Performed assesses how demographic data and food intake affected telomere diameter amongst healthy elderly people in rural and urban settings.Zhang,(2022) suggested the changes to get microbiota also occurred, and these changes had a range of implications on human health. Due to both its detrimental implications on human health and its positive impacts on health, the gut microbiome has attracted interest in recent years. Numerous studies have demonstrated that diet impacts the microbiota and the microbiome as well as the gut microbiota, which influences how nutritious food is for a person.Suggested the acquired findings showed the studied fruit's vitamin plus levels of minerals. It is crucial to understand the technical features of the fruits so that the most effective instruments for operating conditions could be employed for collecting, shipping& treatment. The healthiest versions of locally obtainable food were created using the greatest industrialization–era technologies.Naik, (2020) in industrialized nations, there is a rising attraction to leisurely foods, which are meals consumed for enjoyment as opposed to need.

2. Materials and methods

The research area spans four districts, as shown by the blue circle: Sipahijala, West Tripura, Khowai, and Dhalai (woods of Mann and Ambassa). Khowai includes the forests of Tablabari, Tulasigarh, and Subalsingh.

Interviews with native people

People from the Khowai, Ambassa, Manu, Teliamura, Tulsigarh, Tablabari, and Sipahijal tribes of Tripura, were interviewed verbally as part of a shared research area in remote and forested locations, In 2015, February 2016, and July 2016, a lot of expeditions were made to several communities and wooded areas across various areas of Trang (North East India). Multiple discs of pitch stays were conducted to severalparishes and forested regions in diverse districts of Tripura (Northern East India) in 2015, February 2016, and June 2016. To identify the fruits and get the local villagers' traditional knowledge of wild fruits, interactions with them were held while live specimens and images were being gathered as part of the survey. The local name, availability period, flavor, and usage of food and medicine were all covered via questionnaires that were created. A face-to-face interview process was used.Several government officials from the same community worked for the Tripura Forest Department. To help us understand each other better, these officeholders translated the native tongue into Bengali, Hindi, and English. They set up contacts with knowledgeable locals who had the first experience with wild plants and fruits, which enabled us to conduct an effective study. We traveled to the aforementioned locations with their direction to gather the live specimens depicted as well as comprehensive data on the wild berries and plants.

Collection and identification of fruits

The applications of wild fruits in traditional tribal culture are well known to the tribes21,25. When we met with them, we took note of the demographic traits of the particulars and the local name. There is also documentation of the ways that wild fruit is consumed and how it is used medicinally. In East Tripura, India.

Characteristics of the respondent's demographics

Interviews were conducted with 60 respondents in Tripura's four districts who were over the age of 28, with a mean age of 55. Demographic data were gathered in accordance. 75 percent (47) of the responses out of 60 were men, and 25% (15) were women. 55.5% of the other visitors worked in a range of positions, however, 75% of the guys ended up unemployed or freelancers.

In essence, five types of food of the WEP's resources were grouped according to the plant-based components that the respondents used. 172 WEPs in all, including 60 green and vegetables grown in shoots, seventy fruits, seeds, and nuts, twenty-three underground tubers, and nineteen fungi. The majority of them had been eaten by populations, and only a small number of in-demand

delicacies were locally marketed to provide family revenue and a means of subsistence The 172 natural plants that produced consumable food were divided among 5 different life forms, with herbs making up 34.9% (60) of them, followed by hardwoods at 28.5% (49), shrubs at 13.9% (24), climbing at 11.6% (20), and fungus at 11.1% (19).

3. Result

Diversity of wild edible plant

In essence, five types of food of the WEP's resources were grouped according to the plant-based components that the respondents used. 172 WEPs in all, including 60 green and shoot veges, 70 nut, seed, and fruit varieties; 23 underground tubers; and 19 fungi (**figure 1 and table 1**). The majority of them had been eaten by populations, and only a small number of in-demand delicacies were locally marketed to provide family revenue and a means of subsistence The 172 natural plants that produced consumable food were divided among 5 different life forms, with herbs making up 34.9% (60) of them, followed by hardwoods at 28.5% (49), shrubs at 13.9% (24), climbing at 11.6% (20), and fungus at 11.1% (19) (**figure 2 and table 2**).



Figure 1: diversity of wild edible plant

Diversity edible plants found in nature	Frequency of individuals
Leaves & Shoots	55
Blossoms, Berries, and Nuts	65
Tubers, and Roots	20
Mushrooms	18
Spices	8

 Table 1: numerical outcomes of wild food plant



Figure 2: The prevalence of WEP-related living types
Table 2: Numerical outcomes of life form WEPs

Frequency of individuals	The WEPs' biota
Trees	60
Herbs	24
Shrubs	45
Climbers	20
Fungi	18

Amount of certain food groups consumed per person

The median calorie intake (g/day) trend showed that, except grain products, other kinds of foods were eaten in fewer proportions compared to the guidelines for healthy eating established by the Indian government's ICMR (Indian Council of Medical Research). On whole, daily consumption of all food groups by professional and inactive males, women, and youngsters in a family (**figure 3 and table 3**).



Figure 3: Amount of certain food groups consumed per person

Food Category	Percent of per capita RDA				
	Core	Buffer	Transition		
Cereals	100	105	103		
Pulses	40	60	70		
VEG	70	75	80		
Fl, Fr	60	65	70		
Nut					
Tub Rt	80	70	75		
Milk and	30	60	70		
product					

 Table 3:Numerical outcomes of food categories



Figure 4: Per capita intake of nutrients **Table 4:**Numerical outcomes of nutrients

Nutrients	Percent of percapita RDA			
	Core Buffer		Transition	
Energy	100	105	115	
Protein	65	70	75	
Carbo	75	80	85	
Fat	80	85	90	
Thiam	50	60	55	

Zones of transition, buffer, and core were higher. At the household level, in all three zones, more people consumed vegetables, fruits, and tubers than meat, eggs, fish, dairy products, pulses, sugar, and other fats. Less than 50% of the necessary dietary limits were consumed in the core zone in terms comprised of dairy products, seafood, meat, beans, sugar, and lipids. Conversely, consumption of fruits, vegetables, tubers, milk, and dairy products in transition zones varied from 70 to 80 percent of RDA. Overall, compared to RDA at the household level (the average of all family members) (**figure 4 and table 4**).The food consumption of indigenous populations in AABR was lower by 39.2%, 10.3%, 23.7%, 30.6%, 44.4%, 71%, 52%, 49.1%.

5. Discussion

Ethnic tribes use wild foods as folk medicine

In the research region, we have discovered some useful information about the use of wild fruits as traditional remedies. We learned nearby the use of someremoteachenes as regional medications and dietary complements for humans through interviews with some knowledgeable tribe members Applications of fruit for human health care purposes are discussed. wild jack fruit is very nutritious and that its seeds may be used to make curry, eaten by roasting, and heal arthritis. Locals also consume the tasty, nutritious fruit thychram (Protium serratum Engl.) as raw food and make chutney from it. According to older individuals, it has also been used as an anti-inflammatory anti-arthritis medication. When ripe, Madhumaloti, also known as Majeelota (Stixis suaveolens (Roxb.) Pierre), is one of the few wild fruits found in the area, with seeds that resemble dates inside a hard shell. It has a sweetness comparable to local dates. It is used as a traditional remedy by tribal people for asthma and chest discomfort. (**Table 5**)When it ripens in a cluster while connected to a creeper, it adds to the natural beauty. **Table 5**:Slant of distant, delectable berries in the learning range of Tripura government

SI	Plant term(IPNI)&personal	Time of	Taste	Voucher	Local name	Uses:
-	term	availability		specimen		Common
Ν				number		Prescriptions
о.						-
1	Artocarpuschama	May-July	Sweet but	SB-20,	B-Chamal K-	Season pod
	buchHam., Moraceae		iittie soui	09.00.2014, Tablahari	Jiaili P. Jorm	is engageu
				Coimbatore	K-Jaim	as underdone
				combatore.		spores are
						disbursed in
						the cooked
						system.
						Spores have
						medicinal
						Properties.
2	ProtiumserratumEnglBurseraceae	May-July	Sour in	Tuesday,	Tablabari,	Rinds track
			taste	July 5,	Coimbatore	for door
				2016,	(SB-	furuncles
					21).Thaichramm	moreover
					(R), Niyar (B),	they
					and Thychrm	drink
					(K)	antioxidant
						money as
						fitting.
<u> </u>				aa		
3	Capparaceae; Stixissuaveolens	May-June	Palate	SB-21,	B- Madhabi K-	Peapods stay
	(Koxb.)		alike	02.07.2015,	Majeelota R-	troupe
			seasoning	Tablabari,	MOONI	tainted
			ume	compatore.		aimed at
			awaru			eating, Likowico
						LIKEWISE,
						widespread
						homework

						for attitude environments and asthma.
4	Cucurbitaceae; Hodgsonia- macrocarpaCogn.	Apr-July	Bitter in taste and oily	Section 25 (SB-25), Manu, Dhalai, 05.07.2016.	K-Thaibai, B- Bon Kumara, and R-Thaibai	Cases cores are taken as a different practice of fat in curry besides likewise booked by forming the adherent besides mined lard later tussle excess as joint capsule.
5	Clusiaceae; Garciniagummi- gutta (L.) N. Robson	May–July	Palate is sour and sweet	SB-28, 24.07.2015, Tablabari, coimbatore	B-Kowagota K- Kouk R-Akouk	Worn as fresh berries as fluid, prepared fixes, use folk preparation for behavior on behalf of diarrhea.
6	Gnetaceae; Gnetumgnemon L.	April–June	Taste like cooked ground nut	SB-29, Dhalai, 07.05.2015.	Badam B-Lota Khlow Kali Khlow, R.	Suitable capsules are used up by cooked as trifles, Practise intended on behalf of Bloody diarrhea.
7	Cilantro in abignoniaceae; jete L.	July–Nov	Vicious	Senate Bill 23, Tulsigarh, Coimbatore, 9.04.2015.	Bolo bael, beltilok, tilokbel, and B- bon bael	Pelt illness, purgatives, croup, solid a missile by way of an appliance.



Figure 5:Images of tasty fruits seen in nature (Artocarpus chama, Protium serratum, Stixis suaveolens, Hodgsonia macrocarpa, Garcinia gummi-gutta, Gnetum gnemon, and Garcinia gummi-gutta are listed.

One of the most extinct fruits in the Bengal jungle is the tallow vegetation. When fully grown, the fruit resembles the Jhum pumpkin kind. It's throughout contains 6 or 7 papaya stone-shaped grains and is encased by an outer layer of soft skin. The juice is quite bitter to the taste. Traditional medicine has relied on the outer layer of the kernel to treat bacterial and fungal illnesses, including wounds caused by ringworms. People who have this kind of pollution at the base of their toe classically experience dying and find comfort by massaging the affected region with their soft skin. The kernels are also a significant source of fat, which is extracted as oil and used in frying as a replacement for frying. This oil is also used during childbirth. It is applied to pregnant women's naval area to facilitate a pain-free birth of the baby and lessen any subsequent struggle on the part of the mother. Diseases of the skin are treated with it as well. Locally known as Kok [Garcinia gummi-gutta (L.) N. Robson] a rare kind of wild fruit that ripens to resemble a little orange is historically utilized for culinary purposes. The wild vineberrybuff, known as Khlow in the area. It tastes like peanuts and contains a lot of fat. This plant is increasingly scarce owing to deforestation, and young people overlook it since they don't know enough about it. economic significance and might eventually go lost in The state's natural environment. A magnificent fruit with a smooth exterior surface and a round form, known by the tribal people of Tripura as Beltilok (Crescentia cujete L.), is one of the state's wild fruits. Original The inhabitants of Tripura save the shell for later use in crafting salt bowls and folk instruments that produce a melismatic rattle.. It is quite useful as a folk remedy for asthma, cough, analgesia, and laxatives that are expectorant, antibacterial, and bleeding conditions. Wild orange fruit, also known as chakra (Citrus macroptera Montrouz.) In Tripura's hillock region, is used replacement in cookery and its sun-dried rind is used to tenderize tough heartthroughgastronomic. These wild orange fruits are seldom seen in markets throughout the season. Additionally, it is said that consuming the orange peel of this plant helps to dissolve meat and gallbladder stones and flush them out of the figure urine. Consuming this fruit lowers blood sugar levels, which is advantageous for diabetic individuals blood sugar levels.

The infrequently seen white peer-shaped fruit known as panel jamun seeds. having any distinctive flavor—neither bitter nor sour—but the indigenous people utilize the seeds as dust to cure the condition, as well as soothing antibacterial infections, a cold, wounds, a diuretic, and indigestion. Canavalia gladiata (Jacq.) DC., a magnificent soybean often seen in the Tripura jungle, is named "Baikang" by native individuals; the name means "sword" It is eaten as tubers through a dried trawl called Judah. It settled it is kept and applied future. Tripura people harness it as a traditional remedy for a ruptured disc colicky babies, etc. Bengal is home to the uncommon soybean plants known by the Indians as "yangchak" (Parkia timoriana Merr.). The pod of beans is lengthy and has an emerald hue. the region's Manipuri, Debbarma, and Reang tribes normally eat

it. The indigenous people of Tripura use the fruit of a wild fruit plant shrub known as "Asom" (Melastoma malabathricum L.) To treat a variety of sicknesses and diseases, including diarrhea, leucorrhea, slashes, gashes, infections during confinement, toothaches, dysentery. stomachaches, flatulence, sore legs, and more. Furthermore, when "Asom" plants thrive, a high ground water level is thought to exist. Gaubgota, a seldom found and practically destroyed remote pod plant, is plump in outline, greenish in rawness, and yellowish in mellowness. It is historically employed as a colorant material for cast nets (nets used for fishing purposes).In addition to treating constipation, they utilize it as a remedy for diarrhea, colds, acidity, and diarrhea. Locally known as Pamuk, the little black jamun fruit is Syzygium assamicum. Raizada has a somewhat bitter flavor. This fruit is popular with birds. lastly, in our survey During our inspection, we discovered odd, rare plants on the ground known as ground cherry and chirp ti, which are known in the area as that. As a diuretic, laxative, and anti-inflammatory agent, it is utilized. A high nutritional value chemical like carotene is present in some weeds that may be eaten, however, the younger generation is ignorant of this. It is important to highlight that if appropriate actions are not taken Due to destruction, ignorance of the culinary and folk medical benefits of fruits. and rarity, the majority of the declaredsporadicremotedrupeswillpowerconvertvanished from the vegetation of the Tripura plantation province.

Wild fruit preservation at room temperature

Only 11 of the 15 types of bleak fruit were scrutinized for bookshelflifecycle at the Krishi Vigyan Kendra (KVK) in West Tripura. Every wild fruit has a longer shelf life than cultivated fruits like peaches (2–3 days), bananas (5–6 days), oranges (1–2 days), pineapples (2–3 days), etc. They have a lifespan of 4 to 8 days, during that, they remain essentially current, but following that they gradually begin to deteriorate. Because they develop on their private frequently in the months of fall, They have a lifespan of 4 to 8 days, during that they remain essentially current, but following that they gradually begin to deteriorate. They have a 4 to 5–day lifespan. Fragile apples have little shelf life due to the season's high temperatures and humidity since they begin to rot as soon as they mature. When mature, chamal (Artocarpus chama Buch.–Ham.) has a shelf life of 5–8 days, which is longer than the average jackfruit's (3–4 days). With its strong shell. Thaibai, the mature fruit of the fat vine (Hodgsonia macrocarpa Cogn.), may be kept in storage for up to 23 days. while it monitors their self–lives.

The traditional value of education to society

Urban and ethnic individuals struggle to communicate effectively when discussing eating habits and lifestyle choices. Due to some form of contemporary cultural inbreeding, the younger group of this pastoral public is less involved in keeping out-of-degen. Only the mature devours have been antifungal familiarity with how to use harshpods and shrubberies for food and outmoded curing, and they are still used to collecting and concocting bar pods. These mentors can be used both as food and as folk remedies. Some uninhabited pods, in the verdict of some racial sets, are soon intermittent and on the approach of loss in Tripura's natural environment. For documentation purposes, we have also grouped snapshots of wild fruits as well as their names in a variety of provincial speeches, comprising Debbarma, Reang, and Bengali. This may spur people's interest in protecting the plants for future groups. Finding out an immeasurable amount of antiquated information on a few wild edible fruits and their traditional uses for medicine that were collected from this research location, also. as to transfer the knowledge to the scientific community and/or launch for future scrutiny and conservancy. Due to their alimentary and tranquilizing doles, these diminutive achenes have a bulky socioeconomic outcome. As a result, extra homework is mandatory to analyze their dietary and salutary impending for the value of people to protect them via germplasm groups for proliferation and to sort them standard midst the society.

6. Acknowledgement

The writers would like to acknowledge the kindness of the neighborhood vegetable companies, the residents An ex-forest officer and current workplace carrier named Swapan Debbarma, and the Tripura government's Ministry of Forestry and others who have a relationship to them. They also acknowledge Dipankar Dey, and Ardhendhu Cha They owe an apology of gratitude to the Division of Biochemistry at the Agartala-based National Institute of Technology- for providing them with helpful advice, direction, and academic resources.

References

Abah, R.O., Okolo, S.N., John, C. and Ochoga, M.O, *et al.*, 2015. Prevalence of zinc deficiency among school children in a rural setting in north-Central Nigeria. Int J Pub Health Res, 3(5), pp.214–217.

Abbas, F., Hammad, H.M., Fahad, S., Cerdà, A., Rizwan, M., Farhad, W., Ehsan, S. and Bakhat, H.F, *et al* 2017. Agroforestry: a sustainable environmental practice for carbon sequestration under the climate change scenarios—a review. Environmental Science and Pollution Research, 24, pp.11177–11191.

Atta-Delgado, M.X., Lozano, S.P.G. and Torres, J.A., 2023. A survey on the prevalence of sustainable diets and the eating experience satisfaction. Innovative Food Science & Emerging Technologies, 84, p.103305.

Baumgärtel, C., Götzke, L., Weigand, J.J., Neinhuis, C., Panzo, M.H., Afonso, F. and Lautenschläger, T., Beneficial, *et al.*, or hazardous A comprehensive study of 24 elements from wild edible plants from Angola.

Bayata, A., 2019. Review on the nutritional value of cassava for use as a staple food. Sci J Anal Chem, 7(4), pp.83–91.

Bongaarts, J., 2009. Human population growth and the demographic transition. Philosophical Transactions of the Royal Society B: Biological Sciences, 364(1532), pp.2985–2990.10) Biswas, **S.C., Majumdar, M., Das, S. and Misra, T.K., 2018.** Diversity of wild edible minor fruits used by the ethnic communities of Tripura, India.

Bošnjaković, D., Ognjanov, V., Ljubojević, M., Barać, G., Predojević, M., Mladenović, E. and Čukanović, J, *et al* 2012. Biodiversity of wild fruit species of Serbia. Genetika, 44(1), pp.81–90.

Brahma, S., Basumatary, M.U., Nath, R.K. and Pegu, L., 2022. A Study on Wild Underutilized Edible Plant Species of Kokrajhar District of Assam (India) Consumed as Vegetables Having Ethno Medicinal Properties.

Calder, P.C., 2018. Very long-chain n-3 fatty acids and human health: fact, fiction, and the future. Proceedings of the Nutrition Society, 77(1), pp.52-72.

Chakma, S., Rahman, M.A., Siddik, M.A., Hoque, M.S., Islam, S.M. and Vatsos, I.N, et al., 2022. Nutritional Profiling of Wild (Pangasius pangasius) and Farmed (Pangasius hypophthalmus) Pangasius Catfish with Implications to Human Health. Fishes, 7(6), p.309.

Gimigliano, F. and Negrini, S., 2017. The World Health Organization" Rehabilitation 2030: a call for action". European Journal of Physical and Rehabilitation Medicine, 53(2), pp.155–168.

KEHINDE, A., ADELAKUN, K., HALIDU, S., BOBADOYE, A., BABATUNDE, T. and FADIMU, B.,*et al.*,2020.NUTRIENT QUALITIES OF SELECTED BUSHMEAT IN NEW BUSSA AND ITS ENVIRONS, NIGERIA.Ethiopian Journal of Environmental Studies & Management.

Kingsley, E.N., Cyril, O.U. and Patience, O.I, *et al* 2022. The potential contribution of selected wild fish species to the minerals intake of Pregnant and Lactating Women, Children and Adults in Rural Riverine Communities of Edo State: Insights and Outcomes. Measurement: Food, 8, p.100063.

Kingsley, E.N., Cyril, O.U. and Patience, O.I., 2022. The potential contribution of selected wild fish species to the minerals intake of Pregnant and Lactating Women, Children and Adults in Rural

Riverine Communities of Edo State: Insights and Outcomes. Measurement: Food, 8, p.100063.

Królikowski, T. and Deptuła, K., 2020. Game meat in a well-balanced diet is an attractive alternative to livestock meat[®]. Postępy Techniki Przetwórstwa Spożywczego.

Mann, M.K. and Sooch, B.S., 2022. Utilization of Fruit and Vegetable Wastes for the Cultivation of Edible Mushrooms. In Fruits and Vegetable Wastes: Valorization to Bioproducts and Platform Chemicals (pp. 117–138). Singapore: Springer Nature Singapore.

Naik, A.S., Jamakhani, M., Vernekar, M.R. and Lele, S.S., *et al.*, 2021. Animal-and Plant-Based Food for Health and Longevity. Nutrition, Food, and Diet in Ageing and Longevity, pp.155-177.

Nirmala, C., Shahar, B., Dolma, N, Santosh, O,*et al*, 2022. Promising underutilized wild plants of cold desert Ladakh, India for nutritional security and health benefits. Applied Food Research, 2(2), p.100145.

Papastavropoulou, K., Xiao, J. and Proestos, C., 2023. Edible insects: Tendency or necessity (a review). eFood, 4(1), p.e58.

Peng, M., Tabashsum, Z., Anderson, M., Truong, A., Houser, A.K., Padilla, J., Akmel, A., Bhatti, J., Rahaman, S.O. and Biswas, D., et al., 2020. Effectiveness of probiotics, prebiotics, and prebiotic-like components in common functional foods. Comprehensive reviews in food science and food safety, 19(4), pp.1908–1933.

Pradeepkumar, T. and Divya, K.I., 2023. Underexploited Vegetables of Coastal India for Nutrition and Entrepreneurship. In Vegetables for Nutrition and Entrepreneurship (pp. 463–479). Singapore: Springer Nature Singapore.

Rinninella, E., Cintoni, M., Raoul, P., Lopetuso, L.R., Scaldaferri, F., Pulcini, G., Miggiano, G.A.D., Gasbarrini, A. and Mele, M.C, *et al* 2019. Food components and dietary habits: keys for a healthy gut microbiota composition. Nutrients, 11(10), p.2393.

Sage, C., Kropp, C. and Antoni-Komar, I.,*et al.*, 2021. Grassroots initiatives in food system transformation: The role of food movements in the second 'Great Transformation'. In Food system transformations. Taylor & Francis.

Stofa, A., 2022. Interconnections between agricultural diversity, food supply diversity, and native species and their impact on health in the European Union (Doctoral dissertation).

Teixeira, B. and Mendes, R., 2020. The nutritional quality of dried salted cod: the effect of processing and polyphosphates addition. J. Food Nutr. Res, 8, pp.304–312.

Waliat, S., Arshad, M.S., Hanif, H., Ejaz, A., Khalid, W., Kauser, S. and Al-Farga, A, *et al.*, 2023. A review on bioactive compounds in sprouts: extraction techniques, food application, and health functionality. International Journal of Food Properties, 26(1), pp.647–665.

Zhang, **P.**, **2022.** Influence of foods and nutrition on the gut microbiome and implications for intestinal health. International journal of molecular sciences, 23(17), p.9588.

Cite this article as: Dr. Surendra Reddy VintaThe Significance of Wild Vegetables and Fruits to a Diet That Is Nutritious and Well-Balanced, African Journal of Biological Sciences. 6(2), 86-98. doi: 10.33472/AFJBS.6.2.2024.86-98