Wild Edible Plants in the five Valley Districts of Manipur State, India: A Review

Moirangthem Sonia Devi[1], Maibam Hripriya Devi[2], Potsangbam Kumar Singh[3*]

[1,3]Department of Botany, Manipur International University, Imphal, Manipur, India

[2]Department of Botany, Manipur College, Imphal, Affiliated to Manipur University, Imphal, Manipur, India

***Corresponding Author**

DOI: https://dx.doi.org/10.51584/IJRIAS.2025.101100035

Received: 24 November 2025; Accepted: 01 December 2025; Published: 08 December 2025

ABSTRACT

Background: The article deals with the status of wild edible plants and their traditional utilization by different villagers of Manipur. The identification of plants useful to man from among naturally found plants do commenced in pre-historic times. Several of these plants are useful in different ways such as food, clothing, shelter, transport, medicine, etc. These useful plants were domesticated by the ancient local peoples in our state.

Objectives: In course of time, the cultivation of many of these plants spread over from the area of domestication to new areas through plant acclimatization and plant breeding. Most of the local peoples of the village purely depend to the wild edible plants for their socio-economic purposes.

Materials And Methods: Study sites were from the five valley districts of Manipur. The authors find out some information on the wild edible plants of Manipur from well-known sources categorizing them into: Wild edible: fruits; medicine; stem, tuber and rhizome; spices and vegetables (Singh and Arora 1978).

Results: The present paper is based on the published records, but findings of wild edible plants are not yet complete. In this paper 15 species were found under the fruit category; 15 species of wild edible plants wer e under medicinal plants. In spices, there were 9 species, in vegetable 14 species there are. Not only were these other 10 species found under the category for both rhizome and tuber eatable wild species.

Conclusion: Most of the valuable wild edible plants became extinct due to over exploitation and several disturbances to the forest ecosystem. Thus, the traditional knowledge of wild edible plants is declined day by day. Therefore, the present study shall be emphasized for the protection and conservation of the extinct wild edible plant species for the welfare of the future generation.

Keywords: Wild – edible plants, socio – economic purposes, overexploitation, extinct, conversion.

INTRODUCTION

The term “wild” when applied to plant species refers to those plants which can grow spontaneously in natural ecosystem. Most of the species which are contributing to the biodiversity of North-East India are found in the state of Manipur. Manipur lies in the Northern part of the India sub-continent. The major portion of the state consists of hilly areas, and the districts of the valley are mainly Imphal-East, Imphal-West, Bishnupur, Thoubal, Kakching and Jiribam. Most of the people in the valley areas purely depend on the wild edible plants for their food shelter, vegetables, medicines and socio-economic purposes. The present study shall be focused on the wild edible plants which are found in the five valley districts of Manipur viz, Imphal-East, Imphal-West, Bishnupur,

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume X Issue XI November 2025

Thoubal and Kakching. Wild foods are incorporated into the normal livelihood strategies of many rural peoples shifting cultivation, continues croppers or hunter gatherers. Indigenous knowledge of wild edible plants is important for sustaining utilization of those species Global studies on wild edible plants.

From the early hunter gatherers across the different adaptation stages, plants have assumed great importance in human societies and many people all over the world have depend on many wild species for the food and medicine. About 800 species of wild edible plants are consumed as food plants mainly by the tribal inhabitants in India (Singh and Arora, 1978). Out of 800 species, about 300 plants species occurred in the North-Eastern region (Kanjilal, 1934-40, 1934, 1936; Singh and Arora 1978; Jain and Rao 1977, Watt 1971). Various articles (Deb 1961a, Elangbam, 2002) were published and give details about the edible wild plants in different countries specific areas.

MATERIALS AND METHODS

Study sites were from the five valley districts of Manipur (Figure 1 & 2). The materials of this review were from the published documents. The authors find out some information on the wild edible plants of Manipur from wellknown sources categorizing them into: Wild edible: fruits; medicine; stem, tuber and rhizome; spices and vegetables (Singh and Arora 1978, Cooke, 1958, Majumdari *et al.*, 2006).

Data on WEPs such as scientific names local names family, parts use and mode of consumption were gathered and compiled after assessing all available documents. Identifying and understanding characteristics of the wild edible plants are very helpful to study the socio-economic problems of the people of Manipur (Sinha, 1987).

RESULTS AND DISCUSSION

Of the total floristic wealth of about 20,000 species of Angiosperms available in India, about 600 fall in the categories for used directly or indirectly as food – stuffs (Singh and Arora, 1978). Many articles of local interest have appeared since the first comprehensive publication dealing with this aspects as also on other economic plants (Watt, 1971) but the main source of further information lies scattered in various regional floristic works (Duthie, 1960, Cooke, 1958; Gamble 1957; Kanjilal *et al*., 1934-40) which deal with the flora of India besides using all the information notes wherever possible, from our own experience are also appended (Singh and Arora, 1978, Devi *et al.*,2013).

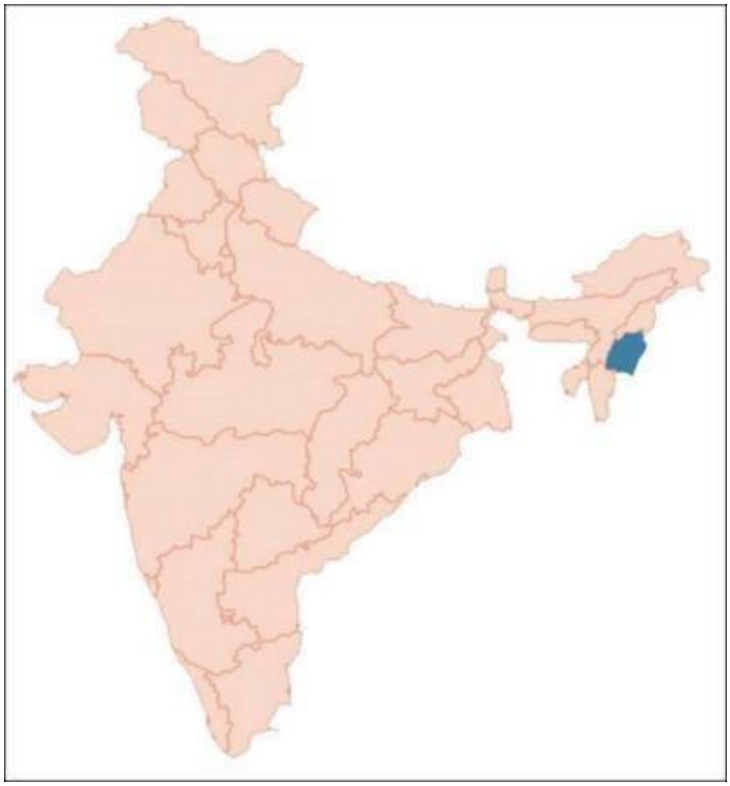

Figure 1. Map of Indian continent showing the location of Manipur state

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume X Issue XI November 2025

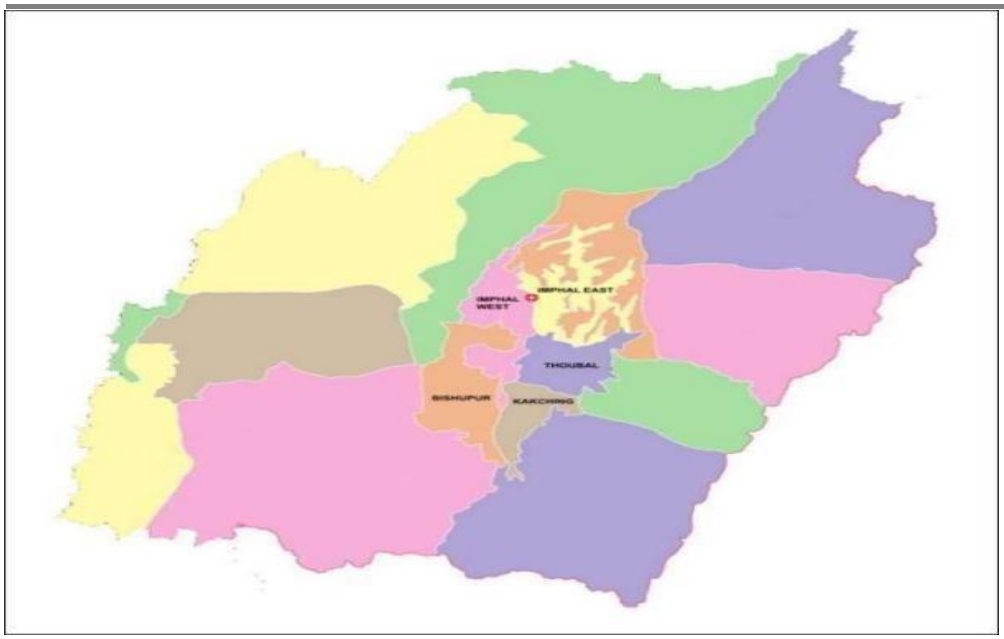

Figure 2. Map of Manipur state showing the study areas of five valley districts.

In the synthesis presented in the given pages, the edible wild plants have been classified into different categories based on the plant parts used i.e the roots/tubers, used as medicine, fruits and spices, etc. In each category the plants are listed alphabetically according to their botanical names followed by English (Hindi names) and again followed by corresponding families as given in parenthesis.

Wild Edible Plants Used as Fruits

In many parts of the world wild plants serve as alternatives to staple food during periods of food deficit and are the valuable supplements for a nutritional balanced diet as well as one of the primary alternative sources of income for many resources in poor communities, and the source of species for domestication. Most of these fruits have medicinal properties including antioxidants effects. In India, most of the tribal people live in the vicinity of forests and till rely on wild plants to sustain their livelihood (Battacharryya, 1963).

Table 1 List of Edible Wild Fruits of Manipur:

SL.No.	Common Name	Scientific Name/ Vernacular Name	Family	REFERENCES
1	Wild olive	Elaegnus conferta Roxb Hei-yai	Euphorbiaceae	Roxburgh W (1820)
2	India gooseberry	Phyllanthus emblica L. Hei-kru	Euphorbiaceae	Consortium. 2023
3	Meyna	Meyna spinosa Roxb. Hei-bi	Rubiaceae	Jacobsen (1912)
4	Bael	Aegle marmelos L. Hei-rikhagok	Rutaceae	Plummer, J. (2020)
5	Cluster Fig	Ficus racemosa Roxb. Hei-bong	Moraceae	Braby, Michael F. (2005)
6	Star gooseberry	Phyllanthus acidus.L. Gehori	Phyllanthaceae	Gupta, I. C.; S. K. Gupta (1 January 1992).
7	Burmese grape	Baccaurea ramiflora Lour. Motok-hei	Phyllanthaceae	Lour. (1790) In: Fl. Cochinch.: 661
8	Wild mango	Spondias pinnata L.f.Kurz Hei-ning	Anacardiaceae	Amitha Bachan, K.H.; Devika, M.A. (2024)
9	Money fruit	Artocarpus lacucha Buch.-Ham Hei-ri-konthong	Moraceae	Cruz-Garcia, Gisella S.; Price, Lisa L. (2011)
10	Drooping fig	Ficus auriculata Lour Hei-rit	Moraceae	Shao, Q.; Zhao,2019
11	Manjam Hei	Tetrastigma bracteolatum. Wall. Monjam-hei	Vitaceae	A. L. P. P. de Candolle & A. C. de Candolle, Monogr. phan. 5(2):428. 1887

12	Bor thekera	Garcinia pedunculata Roxb. Hei-bung	Clusiaceae	Islam, Jasmin; Devi, Vivekanandini; Langching, Jyoti (November 2021).
13	Pithraj	Aphanamixis polystachya (Wall.) R.N. Parker Hei-rang-khoi	Meliaceae	Barstow, M. (2018
14	Rotan sega	Calamus caesius Blume Hei-ri	Arecaceae	Ginkuhà 26 Mayo 2014
15	Raphal	Myrica esculenta Buch.-Ham Nong-gang-hei	Myrtaceae	Kumari, A. (2012).

Wild Edible Plants Used As Medicine

India is one of the 33 hotpots of the world and rich reservoir of large number of economically important fruits, vegetables, flowering trees and medicinal and aromatic plants (Watt, 1971; Anonymous, 2011). Many wild plants harvested for the uses of ethno-medicine in treating of various ointments in indigenous parts of the rural divisions of the country. Most of the ethnic communities depend on forest resources for this survival purpose (Gamble, 1957, Duthie, 1960).

A study conducted in Zimbabwe revealed that some poor households rely on wild fruits as an alternative to cultivated food for the quarter of all dry season's meals. Knowledge of wild edible plants is important for sustaining utilization of those species. Global studies on wild edible plants. From the early huntergatherers and across different adaptation stages, plants have assumed great importance in human societies and many people all over the world have depended on many wild species for food and medicine. In Swaziland wild edible plants are still of great importance and contribute a greater share to the annual diet than domesticated crops.

Alesma Plantego (Kaothum) – From the medicinal point of view, its root can be used for the cure of hydrophobia (Singh et al., 1998, 2001). Amarathus viridis L. (Chengkruk) - The plant possesses antiproliferative and antifungal lectin properties (Sundriyal et al., 2004), Alpinia nigra (Pullei) – It is used as a folk medicine for the treatment of aphrodisiac, tonic, diuretic, expectorant, appetizer and analgesic (Das & Dutta, 2010; Singh and Singh, 1985; Maheshwari and Singh, 1965).

Table 2 List of the wild edible medicinal plants:

Sl. No	**Botanical name**	**Family**	**Common name/Local name**	**Medicinal value**	**References**
1	*Senegalia catechu* (L.f.)P.J.H.Hurter &Mabb.	Fabaceae	*Babul bare & Chinggong lei*	Mascular pain, cough, fever	Plummer, J. (2021)
2	*Acorus calamus* L.	Acoraceae	*Sweet Flag & O-Hidak*	Cough & fever	Lansdown, R.V. (2014)
3	*Andrographis paniculata* (Burm.f.) Nees	Acanthaceae	*Bhubati & King of bitters*	Fever	Anil Kumar, Jyotsna Dora, Anup Singh and Rishikant Tripathi (2012)
4	*Clerodendrum indicum* (L.) Kuntze	Verbenaceae	*Turkis turban & Charoitong*	Cough, fever, dysentery, asthma	David J. Mabberley. 2008.
5	*Cinamomum verum* J.Presl	Lauraceae	*Cinnamo n & Ushingsha*	Cold, cough	de Kok, R. (2024).
7	*Curcuma caesia* Roxb.	Zingiberaceae	*Yaimu*	Fever, cough	Syamkum ar, S.; B. Sasikumar (March 2007).
8	*Cymbopogan flexuosus* Nees	Poaceae	*Houna*	Throat problem, back pain	Singh, M.; et al. (2008
9	*Cynodon dactylon* L.	Poaceae	*Tingthau*	Throat pain	Kandwal, Manish K.; Sharma, M. L. (2011)

10	*Eclipta prostrata* L.	Asteraceae	*Uchisum bal*	Fever & cough	Puri, H. S. 2003
11	*Houttuynia cordata* Thunb	Sauraceae	*Toningkh ok*	Dysenry, muscular pain	Kumar, M; Prasad, S. K; Hemalatha, S (2014).
12	*Jatropha curcas* L.	Euphorbiaceae	*Awa-kege*	Cough, fever, diaarhaea	Janick, Jules; Robert E. Paull (2008)
13	*Plantago erosa* Wall.	Plantaginaceae	*Yempat*	Fever, muscular sprain	Albach, D. C., Meudt, H. M. & Oxelman, B. 2005
14	*Santalum album* L.	Santalaceae	*Chachandan*	Headache, high fever	Arunkumar, A.N.; Dhyani, A.; Joshi, G. (2019)
15	*Wendlandia glabrata* DC.	Rubiaceae	*Pheija*	Cough, dysentry	De Wever A., Didžiulis V. (ed) (2014

Table 3 Stem, tuber and rhizome edible wild plants:

Sl. No	**Botanical name Local name M. Manipuri**	**Family**	**Part use**	**REFERENCES**
1	*Bambusa arundinacea* L., M. *Saneibi wa*	Poaceae	Young stem	Hussain, A., 2008
2	*Dioscorea alata* L., M. *Haa*	Dioscoreaceae	Rhizome	Barker G, Hunt C, Barton H, et al. (2017)
3	*Hedychium coronarium*Koen., M. *Loklei*	Zingiberaceae	Rhizome	Olander, S.B. (2020).
4	*Alpinia allughas* Rosc, M. *Pulei*	Zingiberaceae	Rhizomes	Das BN, Biswas BK (2012)
5	Sagitaria sagitifolia L., M. *Koukha*	Alismataceae	Undeground tuber	Lansdown, R.V. (2014).
6	*Cyperus esculentus* L., M. *Kaothum*	Cyperaceae	Undeground tuber	Kumar, B. (2013).
7	*Alpinia galanga* (L.) Willd, M. *Kanghu*	Zingiberaceae	Rhizome	K. V., Peter, ed. (2012)
8	*Curcuma caesia* Roxb., M. *Yaimu*	Zingiberaceae	Rhizome	Syamkumar, S.; B. Sasikumar (March 2007
9	*Alocasia cuculatta* Schott, M. *Singju pan*	Araceae	Stem, rhizome	Romeiro, R. S., et al. (2006)
10	*Alpinia officinarum* Hance, M. *Pullei - manbi*	Zingiberaceae	Rhizome	Nguyễn Tiến Bân (2005).

Plants Uesd As Spices:

A country report on the plant genetic resources prepared by the National Burean of plant Genetic Resources (India) (2007) states around 8900 species are used by tribal communities of India of which 3900 are used as food around 50% of these WEPs species are found in the Northeastern region of India (Singh & Arora, 1978).

The ethnic people in the rural areas sell some WEPs in the local markets for livelihood and life support (Singh and Singh, 1985; Maheshwari and Singh, 1965; Das and Dutta, 2010) highlighted around 102 neglected and underutilized species (NUS) of edible plants from different regions of the world which could be key for a more resilient, sustainable biodiverse and community participation-driven new “green revolution”. Devi and Salam (2013) reported 56 wild edible plants species used by the Monsang Naga tribe of Manipur.

Table 4 Wild edible plants which are used as a spice:

Sl. No	Family	Botanical name	Vernacular Name M. Manipuri	Mode of consumption	REFERENCES
1	Lauraceae	*Cinnamomum verum* J.Presl	*Ushingsha*	Used as spices	de Kok, R. (2024)
2	Rutaceae	*Zanthozylum acanthopodium* DC.	*Mukthrubi*	Fruits are used as spices	Germplasm Resources Information Network.
3	Rutaceae	*Citrus hystrix* DC.	*Haribob*	Used as spices	D.J. Mabberley (1997), "
4	Apiaceae	*Eryngium foetidum* L.	*Awa phadigom*	Used as spices	Singh BK, Ramakrishna Y and Ngachan SV. 2014.
5	Rutaceae	*Bergera koenigii* L.	*U-maroi*	Used as apices	Plummer, J. (2021).
6	Lamiaceae	*Elsholtzia communis* (Collett and Hemsley) Diels, Notes Roy.	*Lomba*	Used as spices	Royal Botanic Gardens, Kew.
					Retrieved 202 4-03-15.
7	Lamiaceae	*Pogostemon purpurasens* Dalz	*Tekta*	Used as spices	Thoppil, JE; Tajo, A; Minija, J; Deena, MJ; Sreeranjini, K; Leeja, L; Sivadasan, M; Alfarhan, AH (September 2014)
8	Rutaceae	*Zanthozylum alatum* Roxb.	*Mukthrubi achouba*	Used as spices	Barstow, M. (2019)
9	Rutaceae	*Aralia armata* Seem	*Naosek nambi*	Used as spices	Seem. (1868) , In: J. Bot. 6: 134

Plants Used As Vegetables:

Wild edible plants (WEP)s is those with one or more edible plants that can be used as food if collected at the appropriate growth stage and prepared approximately (Sinha, 1987). The ethnic communities have indegeneous knowledge of recognizing, processing and utilizing various edible plants (Singh et al., 2001). These plants are integral part of the regular diet, culture and tradition of many indigenous community of the world (Watt, 1971). They play a significant role in the food security and livelihood of the forest dwellers and tribal communities (Sundriyal et al., 2004). Wild edible plants help in enriching the diets, creating employments and diversifying the livelihoods of the communities in Jeso-Karamoja region, Uganda (Elangbam, 2002). The communities in the Sikkim Himalayan region of India use 190WEPs for food and other subsistence needs (Sundriyal et al., 2004). Most of the tribal community's resident in Senapati district of Manipur, India use various WEPs for their food and livelihood (Majumdari et al., 2015). Kanjilal et al. (1936) stated that the major populace of Lesser Himalayan Pakistan uses WEPs as food and medicine for various ailments. The wild edible also contributes to the attainment of the sustainable development goal of eradicating poverty (Singh *et al*., 1998). The different communities of Manipur have deep traditional knowledge regarding the preparation of nutritionally rich food such as champhut, hei thongba, eromba, kangsoi, Sangju, etc. from various indigenous crop plants. Devi et al. (2013) reported 46 wild leafy vegetables being sold in local markets in Ukhrul districts of Manipur, while Gamble et al. (1957) documented 89 wild edible plants used by the Naga and Kuki tribes of the Senapati districts of Manipur.

Table 5 Wild edible used as vegetables by the people of Manipur:

Sl. No	Family	Botanical name Vernacular name M. Manipuri	Mode of Consumption	References
1	Zingiberaceae	*Alpinia galanga* L. *Kanghu*	Young shoots, flowers and rhizomes are cooked as vegetables	Hoogervorst, Tom (2013).
2	Zingiberaceae	*Alpinia nigra* Gaetn. *Pullei*	Young shoots, flowers and rhizomes are cooked as eromba	Qiao CF; et al. (2007).
3	Amaranthaceae	*Alternanthera philoxeroides* Mart *Kabo-napi*	Cooked as vegetables	Cuellar, Henry (2020-12-27)

4	Amaranthaceae	Alternanthera spinosus L. Chengkruk	Cooked as vegetables	Caton, B. P.; M. Mortimer; J. E. Hill (2004)
5	Amaranthaceae	Alternanthera sessilis L. Phakchet	Cooked as vegetables	Lansdown, R.V.; Beentje, H.J. (2019).
6	Araliaceae	Aralia armata Wall-ex G.. Don Naosek nambi	Eaten raw or Cooked as vegetables	Govaerts R. (ed). For a full list of reviewers see: http://apps.kew.org/wcsp/compilersReviewers.do (2019).
7	Fabaceae	Bauhinia variegata L. Chingthrao	Eaten raw or cooked as vegetables	Baza Mendonça, Luciana; dos Anjos, Luiz (2005).
8	Phyllanthaceae	Bischofia javanica Blume Uthum naraobi	Young shoots and tender leaves are Cooked as vegetables; ripe fruits are eaten raw	Keppel, Gunnar; Ghazanfar, Shahina A. (2011).
9	Arecaceae	Calamus floribundus Griff. Lee	Young shoots and soft stem, piths Cooked as vegetables	

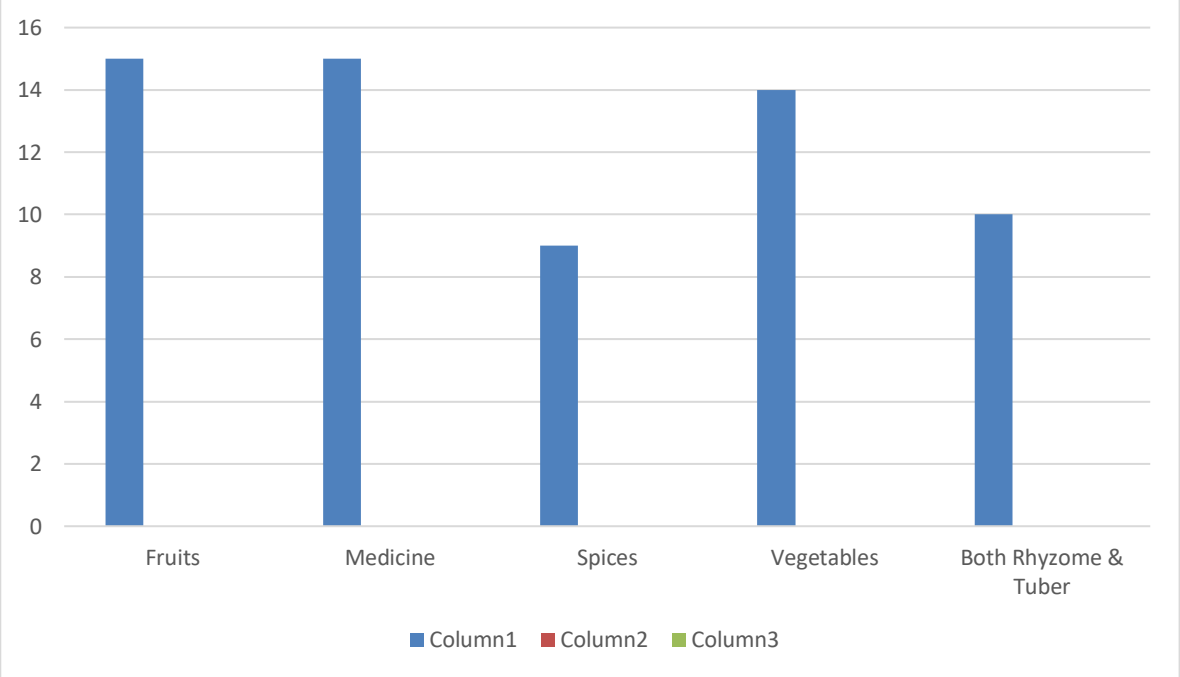

Figure 3 Number of species on the basis of their different forms of uses

CONCLUSION

The present article is an attempt to review the available information regarding the nutritional contribution, supplementary role and medicinal value of wild edible plants in Manipur. Wild edible plants have the potential to improve food security by providing alternative sources affordable and nutritious food wild edible plants have a major contribution to the dietary intake of the local peoples.

ACKNOWLEDGEMENTS

(Authors are very grateful to all the local people who share information about the wild edible plants used to strengthen the food system).

From various published resources the review article collected information about the wild edible plants, thus, we would like to thank the authors for the references used in this review.

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume X Issue XI November 2025

REFERENCES

1. Anonymous, 2011. Census of Manipur 2011. Directorate of Census Operations, Government of Manipur.
2. Battacharryya, M. 1963. Manipur. Gazetear of India, Anusshilan Press, Indian Mirror Street, CulcuttaPp101-201
3. Cooke, T. 1958. The Flora of the Presidency of Bombay, 3 vols, (Reprint Ed.) Botanical survey of India, Calcutta.
4. Elangbam, V.D.2002. Studies on various aspects of wild edible plants of Manipur valley Ph.d. Thesis, Manipur University, Chanchipur, Imphal
5. Das, S, & Dutta Choudhury, M. 2010. Plants used against gastro-intestinal disorders and as antihaemorrhagic by three tribes of North Tripura district, Tripura, India.
6. Deb, D.B.,1961 a. Monocoty ledonons Plants of Manipur Territory, Bull. Bot. Surv. India
7. Devi. M.R. Salam, S, Dutta, B.K & Singh, P.K., 2013. Biodiversity of Medical plants used by the Monsang Naga Tribe of Manipur India Bioresources and Traditional of Kmowledge of Northeast India, Mozo Post Gaduate Science Society Pp299-302.
8. Duthie, J.F. 1960. Flora of the Upper Gangetic Plains 2 vols (Reprint Ed), Botanical Survey of India, Calcutta.
9. Gamble, J.S. 1957. Flora of the Presidency of Madras, 3 vols (Reprint Ed), Botanical survey of India, Calcutta.
10. Jain, S.K., Rao, R.R., 1977. A Handbook of Field and Herbarium Methods. Today and Tomorrow's Printers and Publishers, New-Delhi.
11. Kanjilal, V.N: Kanjilal P.C.; Das,A &Purkayastha, c.1934. Flora of Assam, Vol-1 Govt. of Assam, Shillong
12. Kanjilal,U.N.; Kanjilal.P.C.& Das, A.1936. Flora of Assam,Vol-II, Govt of Assam, Shillong
13. Kanjilal, U.N, et al 1934-40. Flora of Assam, 4 vols, Government of Assam, Shillong.
14. Maheshwari, P and Singh, U, 1965. Dictionary of Economic plants in India, IGAR, New Delhi.
15. Majumdari, K.R. Saha. Datta and T. Bharta,2006. Medicinal plants prescribed by different tribal and non-tribal medicine men Tripura state.
16. Singh,P.K., Elangbam, B. & Singh, H.B.K 2001. Wild edible Aquatic Plants of Manipur valley, India. In P.C. Pande & S.S. Samant(eds) Plants Diversity of the Himalaya Gyanadaya Prakashan, Nainital. Pp. 513 – 522.
17. Singh, P.K. Singh. N.I & Singh, L.J. 1998. Ethno-botanical studies on wild edible plants in the market of Manipur -II. J.Econ.Jax. Bot. 12(I): 113-119
18. Singh,H.B, Arora,R.K., 1978. Wild Edib,le Plants of India,ICAR, New-Delhi
19. Singh,S.R. &Singh, N.I., 1985. A preliminary ethnobotanical studies of wild edible plants in the market of Manipur-1 Journal of Economy and Taxonomy Btany 6(B0, 699703
20. Sinha,S.C. 1987. Ethno-botany of Manipur; medicinal plants Front.bot.1: 123-151
21. Sundriyal, M. Sundriyal, R.C, Sharma, E.2004 Dietary use of wild plant Resource in the Sikkim Himalaya. Indian Journal of economy and Taxonomy Botany 58(i), 626638.
22. Watt, G.1971. A Dictionary of the Economic Products of India (Reprint Ed), Cosmo Publication Delhi, India.