

Study about the Living Environment of the Wild Herbs Using Like the Medicinal Plants in the Folk at Hilly Area

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Abstract: At the mountain area, the wild herbs are very much, but here, the life of men is difficult; they do not have the foods and medicaments; therefore, they use some wild herbs such as the medicinal plants in Vietnamese folk; besides, they use some wild herbs to eat such as vegetables and cure the diseases, too; mostly, the late night, the remote place, it is far from the market, far from the densely populated area; it is rare of medicines. In the Vietnam country, the men talk usually: "The Vietnamese people died on the pile of medicine", that has a mean: here, there are many herbs which have medicinal uses; the men are near these herbs. But they do not know. Example: we can tell the families: Asteraceae, Euphorbiaceaes, Malvaceae, Poaceae, Zingiberaceae...Specially in one family, it has many medicinal useful plants, too. In this report, we study about the environmental station, the herbs, the plants, vegetables and the uses of the men about those vegetables, their necessary uses.

Key words: Food, vegetables, diseases, folk.

1. Introduction

A place of research, this is Loc Thanh Village, Bao Lam District, Lam Dong Province; it is a district according to the plateau of Di Linh—Bao Loc. Now, at the local region, it is not a big industrial area or a strong industrial company, therefore, it has not a big pollution [1].

2. Necessary Cause of Research

At the plat region, vegetables have more and more, while at the mountain region, vegetables are very rare; here, we study the soil, water, herbs, vegetables, plants which can use in the life of the men. We observe and find the value, especially, to care the diseases in the folk [2, 3].

3. Object of Research

Having the food for people; having the sources of vegetables to eat for the persons; having the sources of vitamins to cure, these wild herbs can be in the homegarden or everywhere on the hilly area [5, 6].

4. Materials and the Methods of Research

4.1 Materials

- A model of mountain soil in Loc Thanh Village, Bao Lam District, Lam Dong Province;
 - A model of water here;
 - Many wild herbs, plants...

4.2 Method of Research

- In the nature: we observed the households and outside, searched for the model of green vegetables, and investigated about epidemics, herbicides, insecticides;
 - In the laboratory: we analyzed models of soil.

5. Results and Discussions

• Model of soil analyzed:

And the water, everyone uses from rainwater.

• The wild herbs: we found 33 species according to 19 families including 2 subfamilies [5, 7-12].

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Table 1 Parameters of soil sample.

No.	Parameters		Concentrations	Methods	Limitation values*
1	pH (H ₂ O) 1:5 pH (KCl) 1:5		6.13	Standard of VN 5979-155	6.5-8.5
2			4.48	Standard of VIN 3979-133	6.0
3	EC (µS/cm)		12.90	Standard of VN 6650-2000	10-20
4	N total (%)		0.077		0.1-0.15
5	P total (%)		0.034	Standard of VN 6440-2000	0.06-0.08
6	K total (%)		0.030		0.3-1.5
7	Al ³⁺ exchange (mg/100 g)		2.37	AOAC 990.08-2000	0.1
8	Ca ²⁺ (mg/100 g) Mg ²⁺ (mg/100 g)		0.073	Standard of VN 6496-1999	4.0-6.0
9			0.049	Standard of VIN 6496-1999	2.0-3.0
		Sand (%)	4.30		
10	Emery	Clay (%)	58.30	AOAC 2000	-
		Flesh (%)	37,40		
11	SO ₄ ² - (mg/100	g)	0,887	Standard of VN 6656-2000	1.0-2.0

^{*}According to Vietnam standard/national technical regulation on the limits of heavy metals (Vietnam Technical Regulation 8-2: 2011/Medicinal Ministry) [4].

Table 2 Names, families and uses of wild herbs.

Order	Quantity	Vietnamese names	Foreign names	Scientific names	Families	Uses
(1)	(2)	(3_	(4)	(5)	(6)	(7)
1	+	Trái nổ	Minnie root; Chandelier	Ruella tuberosa L	Acanthaceae	Roots make cool down, sweats. Treat low urination, constipation
2	++	Dệu, diếc bò	Lotus seed herb	Alternanthera sessile L	Amaranthaceae	-Vegetables -A brewing to drink, treat the organ. India: treat night blindness
3	++	Dền xanh	Amaranth, Josiph coat; Brède de madagasca	Amaranthus viridis L	Amaranthaceae	-Vegetables -The leaves having Vitamin B -Treat flu, dysentery, swelling -Vegetables
4	++	Dền gai	Pigweed; Amarante epineuse, Epinard cochon	Amaranthus spinosus L	Amaranthaceae	-Roots and leaves make detoxin (detoxification), diuretic, having bloods
5	+	Rau má	Penny leaf, Gotukola	Centella asiatica (L) Urb	Apiaceae	-Vegetables -Make cool body -Treat itchy boils, urinary
6	+	Quán chúng	-	Asplenium nidus L	Aspleniaceae	Tonic
7	+	Cỏ cứt lợn	White weed, Goal weed; Ageratum	Ageratum conyzoides L	Asteraceae	Make detoxification, a boil treatment, a menorrhegia
8	++	Cỏ mực = Lọ nồi	Kongolala	Eclipta alba Hassk	Asteraceae	Make nourishing bloods, cool liver, detoxify, and bone hardness
9	++	Từ bi	Camphor plant; Camphrée	Blumea Balsamifera (L) DC	Asteraceae	Make clear nose, a herbal steam, except insects
10	++	Ké đầu ngựa	Cocklebur; Lambourde	Xantium inaequilaterum DC	Asteraceae	Make the toxification, treat runny nose
11	*	Cúc hoang = Cúc mai thảo	Mexican Daisy	Tridax procumbens L	Asteraceae	Leaves are insect killer, treat sore eyes, a dysentery, bronchitis, a bladder stones
12	*	Sơn quỳ biến diệp	-	Tithonia diversifolia (Hemsl)	Asteraceae	A treatment of anti-inflammatory
13	+	Bạch đầu ông	Common iron-weed	Vernonia cinerea (L) Less	Asteraceae	Everyone eats leaves; make sweat, treat stomachache, a cough treatment
14	+	Cỏ sướt	Prickly, Chaflower	Achycanthus aspea	Asteraceae	Treat blood stasis, nourishing the liver and kidneys

Table 2 to be continued

15	++	Cỏ hôi	Jack in bush, Siamweed; Langue the chat	Eupatorium odoratum L	Asteraceae	Flowers treat diabetes, cough; leaves treat the flu. Attention: alcaloic, tixic
16	+	Vòi voi	Indian helitrope, Indian turnsol; Crête à coq	Heliotropium indicum L	Borasinaceae	Make stiff bones and tendons, pain relief
17	++	Muồng hôi	Foetid cassia, sickle senna; Cassia fetide	Cassia tora L	Sub. Family Caesalpinoideae	Leaves cure helminths, scables; the seeds treat glaucoma at eyes, headache
18	+	Màng màng tím		Cleome chelidonii L.f	Capparaceae	Herbs treat about skin; seeds treat helminths
19	+	Cỏ cú	Nut grass, yellow nutsedge	Cyperus rotundus L	Cyperaceae	Treat a diarrhea, regulate the menstrual cycle
20	++	Rau trai	Day-flower	Commelina communis L	Commelinaceae	Make cool body, treat a diarrhea, a fever, eyesore
21	+	Cỏ sữa lông	Hairy spurge, ill bearing spure, asthma herbs; Herbes à pilales	Euphorbia hirta L	Euphorbiaceae	Cure the dysentery, an ice stasis, through meridians
22	+	Cây chó đẻ	-	Phyllanthus urinaria L	Euphorbiaceae	Treat a liver, kidney diseases, a fever, diabetes
23	++	Húng cây	Sweet basil, Basilic	Ocimum basilicum L	Lamiaceae	Treat a fever, kidney stones, a flu, a diuretic, a hypotention
24	+	Cây cối xay	Flowering maple, county malallow, Moon flower	Abutilon indicum (L) Sweett	Malvaceae	An antibiotic, an uterine excitement; Roots treat a dysentery, cough, a fever, a bronchitis
25	+++	Cây chổi đực = bái nhọn	-	Sida acuta Burm.f	Malvaceae	Roots: make to eat edible, nutritious, sweat, anti-worms
26	++	Ké hoa đào	Indian rallow; Cousin rouge	Urena lobata L	Malvaceae	Treat a flu, make diuretic, a stomachache; flowers treat a dysentery, a liver
27	++	Mua lông	-	Melastoma sanguineum Sims	Melastolasceae	Roots treat about a liver disease
28	++	Trinh nữ = Mắc cỡ	Sensitive plant, Shame weed; Sensitive	Mimosa pudica L	Sub family Mimosoideae	Treat an anodine, a difficulty sleeping, a bone pain
29	+	Me đất	Yellow wood, Sorrel, Indian sorel	Oxalis corniculate L	Oxalidaceae	A perforation treatment, a blood loss, a dysentery, an antibacterial
30	*	Cỏ tranh	La lang, Alang alang, Thatch grass; Herbes à pailotte	Imperata cylindrica (L) P. Beauv var Major (Nees) Hubb	Poaceae	Treat scabies, stop bleeding, a refreshment
31	*	Cỏ mần chầu = mần trầu	Crab grass, Yard grass, Goose grass; Pied poule	Eleusine indica (L) Gaertn	Poaceae	Make cool body, detoxification, a refreshment, treating high blood pressure, erythema
32	++	Cây thơm ổi = trăm ổi	Guinea grass; Herbe de coninée	Lantana camara L	Verbenaceae	Make a bonsai Treat an asthma, cough, make cool down, a fever, a numbness
33	++	Gừng gió = gừng đại	Zinger; zingenbre	Zingiber zerumbet (L) J.E.Sm	Zingiberaceae	Treat an asthma, a stomachache, a dysentery, an acute bronchitis

Classifying according to Professor Pham Hoang Ho, book: *Trees of Vietnam Country* (2006), Montreal Publishing. The list of names according to order: A, B, C, D.

Symbol: +: little, ++: average, +++: much, ☆: very much.

6. Conclusions

With the results we have, we see that at the hill area, there are many wild herbs, here, the soil is poor [6], acid, a station of the environment is not good, water is provided because it is rain, everyone does not water, water is rare [1]; therefore, if everyone wants to plant, he must increase a quantity of fertilizer; he uses the organic fertilizer such as: algae, a garbage of vegetables, of animal, a lime powder, a rice husk ash, a shellfish [3, 18]. Especially, we want tell that the wild herbs, everyone does not throw away because he uses them

such as: vegetables to eat and the medicinal plants to cure the diseases; mostly, the area is far from the market, the downtown, the area has no medicine in the drugstore, and he can use these herbal medicines [10-13]. We had many times in the field to observe, to study, here, total 33 species according to 19 families; these wild herbs can treat some of diseases such as: a flu, a cough, a headache, a stomachache, a hypotension... [14-17]. Here there are rats, worms, snacks...We must have a net house in order to cover for the vegetables; and epidemics such as: a green sear, a yellow sear... We must except these epidemics but we do not take insecticides, herbicides because we want to keep having the good soil.

Abbreviations

H₂O: water; Ca₂⁺: Calcium; P: Phosphor; K: Kalium; S: Sulfur; Mg₂⁺: Magnesium; Al₃⁺: Aluminium.

Benefit Conflict

We declare no conflict of interest.

Contribution of the Author

An Nguyen Thi Ngoc: The author observed, investigated, searched everywhere about the trees, controlled the experiments, studied, wrote and prepared, presented a report.

Trang Huynh Nguyen Thuy: investigated, observed on the households, collected data.

References

[1] Bao Lam District. 2015. Document about a Report of Bao Lam District, Lam Dong Province, 16-18.

- [2] An, N. T. N. 1986. *Ecosystem of the Home-Garden*. Ho Chi Minh City: Agricultural Publishing, 7-9.
- [3] An, N. T. N. 1996. *The Necessaries Trees on Garden in the South of Vietnam*. Ho Chi Minh City: Agricultural Publishing.
- [4] Medicinal Ministry. 2011. National Technical Regulation on the Limits of Metals Contamination in Food, 4, 6, 8.
- [5] Tinh, T. 2025. *The Miraculous Remedies of Southern*. Ho Chi Minh City: Knowledge Publishing, 21, 30.
- [6] Xuan, V. T. 1984. Soil and Plants. Hanoi: Vietnam Education Publishing House, 24-25.
- [7] An, N. T. N. 2004. Environmental Study of the Green Vegetable Garden in Ho Chi Minh City. Report was examined by the subject at department level, 17-18.
- [8] An, N. T. N. 2022. *The Rural and Agricultural Environmental Management*. ISBN:987-604-60-3573-2. Ho Chi Minh City: Agricultural Publishing, 14-17.
- [9] Environmental Department. 1995. International Conventions on Environmental Protection. Hanoi: National Politics Publishing, 10-12.
- [10] Ho, P. H. 1991-1993. The Vegetables of Vietnam Country. Montreal: Montreal Publishing, 187, 241, 245, 247, 351.
- [11] Ho, P. H. 2006. *The Medical Trees at Vietnam*. Ho Chi Minh City: Tre Publishing, 114, 438, 439, 453.
- [12] Yen, H. 2025. *500 Good Prescriptions*. Ho Chi Minh City: Knowledge Publishing, 30, 70.
- [13] Loi, D. T. 1997. *The Medicinal Trees of Vietnam*. Ho Chi Minh City: Publishing of Science and Technology, 15, 18, 27, 45.
- [14] Xung, N. V. 1986. 35 Easy to Find Medicinal Plants. Ca Mau: Ca Mau Publishing, 37, 39.
- [15] Binh, N. T. 1963. *Document of Medicament*. Ho Chi Minh City, 19, 20.
- [16] An, N. T. N. 2010. The Trees to Cure the Diseases and an Environment. Ho Chi Minh City: Agricultural Publishing, 30-33
- [17] Chi, V. V. 1998. *Medicinal Plants*. Dong Thap: Dong Thap Publishing, 19-20.
- [18] Chinh, N. M., Quyen, M. V., and Nghia, N. V. 2005. Doctor of the Planting Trees. Ho Chi Minh City: Agricultural Publishing, 18-19.

Appendix



Fig. 1 Pigweed.



Fig. 2 Sensitive plant, Shame weeds, Sensitive.