

TRADITIONAL USE OF PLANTS IN THE HUMAN DIET IN TIMOK REGION

Jelena S. Matejić¹, Ana M. Džamić²

¹University of Niš, Department of Pharmacy, Faculty of Medicine, Bulevar dr Zorana Đinđića 81, 18000 Niš, Serbia

²University of Belgrade – Faculty of Biology, Institute of Botany and Botanical Garden “Jevremovac”, Studentski trg 16, 11000 Belgrade, Serbia

INTRODUCTION

The Valley of Timok River is located in the Eastern parts of Serbia with a special geographical location and rich biodiversity. There are parts of rural areas with a high percentage of unpolluted nature with a huge potential for the production of healthy food. This is due to the composition of the soil, landscape, climate and geological conditions¹. The most common diseases among the village population of the Timok region are problems with the digestive system and intestinal infectious diseases, respiratory organ disorders and arthritis. Women mostly suffer from chronic uterus and ovary inflammation, urological diseases, as the consequence of hard work both in the field and in the house².



MATERIALS AND METHODS

The investigation was conducted on the territory of 10 Timok villages (located in the valley of the Timok River, Crni Timok and Beli Timok). The survey has included 94 respondents, 33 men and 61 women, which reported 1549 uses of plants.

RESULTS AND DISCUSSION

A semi-structured, anonymous ethnobotanical interview has been used for the data collection. The respondents indicated that they use 108 plants species in total, 52 species in nutrition (Table 1). From 1549 use-reports of the Timok local population 435 use-reports shown that plants are used as fresh, cooked, as juice, jam, marmalade or compote. The most commonly used are the next species: *Armoracia rusticana* Gaertn., C.A.Mey.&Scherb. (33 use-reports), *Sambucus nigra* L. (27 use-reports), *Fragaria x ananassa* Dush.F. (24 use-reports), *Urtica dioica* L. and *Vitis vinifera* L. (22 use-reports). A fresh root of *A. rusticana* is used for treatment of migraine, sinusitis, productive cough, abdominal pains, improvement of appetite, chills, fever and improve immunity. The local population use juice from the flower of *S. nigra* in the case of bronchitis and productive cough. The respondents use the fruit of strawberry in the diet in form of juice, jam, marmalade for improving immunity and cardiac insufficiency. Aerial parts or the leaves *U. dioica* are used fresh or cooked in the diet for immunity improvement, cardiac insufficiency and anaemia. Fruit or fresh juice *V. vinifera* are used in the treatment of abdominal pains, constipation, as well as the improving immunity.

CONCLUSION

This ethnopharmacological survey gives us the possibility to save the knowledge about the use of plants in the Timok region, and increase the awareness of people about the health aspect of these plants.

Reference

- [1] Matejić et al. Traditional uses of autochthonous medicinal and ritual plants and other remedies for health in Eastern and South-Eastern Serbia. J. Ethnopharmacol 261 (2020) 113186
[2] Paunović, P., 2008. Geography of Health (Zaječar).

Acknowledgments: The authors are grateful to the Ministry of Education, Science and Technological Development of the Republic of Serbia for financial support (Grant No: 451-03-68/2020-14/ 200178, 451-03-9/2021-14/200113).

Table 1. Plants in the human diet in Timok region.

| Plant list | No of use-report |
|--|------------------|
| <i>Allium cepa</i> L. | 3 |
| <i>Allium sativum</i> L. | 6 |
| <i>Allium ursinum</i> L. | 10 |
| <i>Amaranthus retroflexus</i> L. | 1 |
| <i>Anethum graveolens</i> L. | 15 |
| <i>Apium graveolens</i> L. | 9 |
| <i>Armoracia rusticana</i> Gaertn., C.A.Mey.&Scherb. | 33 |
| <i>Aronia</i> sp. | 5 |
| <i>Beta vulgaris craca</i> Alef. | 10 |
| <i>Brassica oleracea capitata</i> DC. | 6 |
| <i>Capsicum annuum</i> L. | 12 |
| <i>Chenopodium album</i> L. | 1 |
| <i>Cornus mas</i> L. | 6 |
| <i>Corylus avellana</i> L. | 3 |
| <i>Crataegus monogyna</i> Jacq. | 3 |
| <i>Cucumis sativus</i> L. | 9 |
| <i>Cucurbita pepo</i> L. | 2 |
| <i>Cydonia oblonga</i> Mill. | 6 |
| <i>Ficus carica</i> L. | 1 |
| <i>Foeniculum vulgare</i> Mill. | 3 |
| <i>Fragaria x ananassa</i> Dush.F. | 24 |
| <i>Juglans regia</i> L. | 3 |
| <i>Levisticum officinale</i> W.D.J.Koch. | 2 |
| <i>Malus domestica</i> Borkh. | 17 |
| <i>Mentha piperita</i> L. | 3 |
| <i>Morus alba</i> L. | 3 |
| <i>Morus nigra</i> L. | 2 |
| <i>Pelargonium graveolens</i> Her | 1 |
| <i>Petroselinum crispum</i> Mill. | 3 |
| <i>Phaseolus vulgaris</i> (cultivare) L. | 2 |
| <i>Phaseolus vulgaris</i> L. | 12 |
| <i>Prunus avium</i> L. | 5 |
| <i>Prunus cerasus</i> L. | 4 |
| <i>Prunus domestica</i> L. | 18 |
| <i>Prunus persica</i> (L.) Batsch. | 5 |
| <i>Prunus spinosa</i> L. | 1 |
| <i>Pyrus communis</i> L. | 11 |
| <i>Rosa canina</i> L. | 4 |
| <i>Rosmarinus officinalis</i> L. | 1 |
| <i>Rubus fruticosus</i> L. | 8 |
| <i>Rubus idaeus</i> L. | 15 |
| <i>Rumex patientia</i> L. | 20 |
| <i>Sambucus nigra</i> L. | 27 |
| <i>Solanum lycopersicum</i> L. | 14 |
| <i>Solanum tuberosum</i> L. | 2 |
| <i>Taraxacum officinale</i> Webb. | 21 |
| <i>Triticum aestivum</i> L. | 8 |
| <i>Tropaeolum majus</i> L. | 2 |
| <i>Urtica dioica</i> L. | 22 |
| <i>Vaccinium myrtillus</i> L. | 3 |
| <i>Vitis vinifera</i> L. | 22 |
| <i>Zea mays</i> L. | 6 |
| Grand Total | 435 |