

HONEY POTENTIAL OF GRASSLANDS IN SUBCARPATHIANS IALOMITA

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Abstract

Grassland vegetation is relatively rich and varied. Many of the species present in the floristic composition of grasslands may have other uses than the feed, they represent an important resource for honey.

Keywords: grasslands, honey production, green technology

1. INTRODUCTION

The view of pastoral heritage is intended solely as a resource use and exploitation fodder no longer meets the imperative of sustainable development of the countryside in general and the rural areas in particular. Applying technology and culture rational exploitation of these areas to feed, you can achieve a harmonious blend of the traditional role of grasslands to support livestock development, the valences of the multifunctional use of their carpet plant. In this new design, the usefulness of the lawn gets another dimension, perfectly integrated system of sustainable development. Using Multifunctional grasslands does not diminish their role so far, but on the contrary, it develops into an integrated operating system, the principles of organic agriculture, with many advantages arising from this in perspective.

Operation of the vegetation cover in sustainable agriculture should be on the principle of using multifunctional. In this system, the productive potential of a type of grassland is not only the production of feed, but a complex feature of the vegetation cover. It is about extending the use of grasslands in pastoral areas complementary field, such as environmental protection, biodiversity and natural ecosystems, resource exploitation of natural flora and medicinal honey unpolluted eco-tourism development and heritage tourism in the pastoral area and some parts human health sector infrastructure.

2. MATERIAL AND METHOD

To achieve the research objectives were investigated in the area Subcarpathians Ialomița routing. During the field trips were conducted floristic surveys. There were forage species but also use honey, the stationary conditions for each

mapping, plant phenological phase identified, flower color, height of vegetation and other ecological and biological characteristics. It was also noted maintenance condition of grasslands investigated, works to improve the system applied in the determination, as in previous years. For the honey production assessment was envisaged that the real potential of each bee species by exploiting the vegetation cover is reduced primarily feed purposes.

Therefore, it was considered appropriate average production honey potential of the least productive species: 10-20 kg / ha honey (equivalent to from 0.1 to 0.2 kg / ha for each percent of vegetation coverage in the carpet).

3. RESULTS AND DISCUSSIONS

On permanent grassland from Subcarpathians area was identified 99 bee species (table 1), most of forage utilization.

Some species can be identified and which are known to use herbal medicinal plants.

Table 1. The main bee species of grassland Subcarpathians Ialomita

Nr.u nit	SPECIES NAME	USE
1.	<i>Adonis vernalis</i>	M, MF
2.	<i>Allium sphaerocephalon</i>	MF
3.	<i>Anthyllis vulneraria</i>	MF
4.	<i>Aster amellus</i>	MF
5.	<i>Carduus acanthoides</i>	MF
6.	<i>Carduus nutans</i>	MF
7.	<i>Carum carvi</i>	M, MF
8.	<i>Centaurea jacea</i>	M, MF
9.	<i>Centaurea orientalis</i>	MF
10.	<i>Centaurea phrygia</i>	MF
11.	<i>Centaurea scabiosa</i>	MF

12.	<i>Centaurea stoebe</i>	MF
13.	<i>Chamaecytisus albus</i>	MF
14.	<i>Chamaecytisus austriacus</i>	MF
15.	<i>Cichorium intybus</i>	M,MF
16.	<i>Cirsium vulgare</i>	MF
17.	<i>Coronilla varia</i>	M,MF
18.	<i>Crataegus monogyna</i>	M,MF
19.	<i>Cytisus nigricans</i>	MF
20.	<i>Daucus carota</i>	MF
21.	<i>Echium maculatum</i>	M,MF
22.	<i>Echium vulgare</i>	M,MF
23.	<i>Genista tinctoria</i>	MF
24.	<i>Genistella sagittalis</i>	MF
25.	<i>Geranium pratense</i>	MF
26.	<i>Leucanthemum vulgare</i>	MF
27.	<i>Linum austriacum</i>	M,MF
28.	<i>Linum catharticum</i>	M,MF
29.	<i>Linum flavum</i>	MF
30.	<i>Linum hirsutum</i>	MF
31.	<i>Linum perenne</i>	MF
32.	<i>Lotus corniculatus</i>	MF
33.	<i>Marrubium perregrinum</i>	M,MF
34.	<i>Medicago falcata</i>	MF
35.	<i>Medicago lupulina</i>	MF
36.	<i>Medicago minima</i>	MF
37.	<i>Melilotus officinalis</i>	M,MF
38.	<i>Myosotis arvensis</i>	MF
39.	<i>Nepeta pannonica</i>	MF
40.	<i>Oenanthe silaifolia</i>	MF
41.	<i>Onobrychis arenaria</i>	MF
42.	<i>Onobrychis vicifolia</i>	MF
43.	<i>Ornithogalum umbellatum</i>	MF
44.	<i>Pastinaca sativa</i>	MF
45.	<i>Pedicularis limnogenia</i>	MF
46.	<i>Peucedanum arenarium</i>	MF
47.	<i>Phlomis tuberosa</i>	MF
48.	<i>Pimpinella saxifraga</i>	M,MF
49.	<i>Pulmonaria officinalis</i>	M, MF
50.	<i>Rosa canina</i>	M, MF
51.	<i>Salvia austriaca</i>	MF
52.	<i>Salvia nutans</i>	MF
53.	<i>Salvia pratensis</i>	MF
54.	<i>Salvia transsilvanica</i>	MF
55.	<i>Salvia verticillata</i>	MF
56.	<i>Scabiosa ochroleuca</i>	MF
57.	<i>Serratula radiata</i>	MF
58.	<i>Stachys germanica</i>	MF
59.	<i>Stachys officinalis</i>	M, MF
60.	<i>Stachys recta</i>	MF
61.	<i>Symphytum officinale</i>	M, MF
62.	<i>Taraxacum officinale</i>	M, MF
63.	<i>Taraxacum serotinum</i>	MF
64.	<i>Teucrium chamaedrys</i>	MF
65.	<i>Teucrium montanum</i>	MF
66.	<i>Teucrium polium</i>	MF
67.	<i>Thymus comosus</i>	MF
68.	<i>Thymus glabrescens</i>	MF
69.	<i>Thymus pannonicus</i>	M, MF
70.	<i>Thymus serpyllum</i>	MF
71.	<i>Tragopogon dubius</i>	MF
72.	<i>Tragopogon pratensis</i>	MF
73.	<i>Trifolium alpestre</i>	MF
74.	<i>Trifolium arvense</i>	MF
75.	<i>Trifolium aureum</i>	MF

76.	<i>Trifolium campestre</i>	MF
77.	<i>Trifolium dubium</i>	MF
78.	<i>Trifolium fragiferum</i>	MF
79.	<i>Trifolium hybridum</i>	MF
80.	<i>Trifolium medium</i>	MF
81.	<i>Trifolium montanum</i>	MF
82.	<i>Trifolium ochroleucon</i>	MF
83.	<i>Trifolium pannonicum</i>	MF
84.	<i>Trifolium pratense</i>	MF
85.	<i>Trifolium repens</i>	MF
86.	<i>Valeriana officinalis</i>	M, MF
87.	<i>Verbascum chaixii</i>	MF
88.	<i>Verbascum phlomoides</i>	M, MF
89.	<i>Verbascum phoeniceum</i>	MF
90.	<i>Veronica arvensis</i>	MF
91.	<i>Veronica chamaedrys</i>	MF
92.	<i>Veronica officinalis</i>	M, MF
93.	<i>Veronica orchidea</i>	MF
94.	<i>Veronica prostrata</i>	MF
95.	<i>Veronica spicata</i>	MF
96.	<i>Veronica teucrium</i>	MF
97.	<i>Vicia cracca</i>	MF
98.	<i>Vicia tenuifolia</i>	MF
99.	<i>Viola hirta</i>	MF

M- herb, MF – honey plant

In assessing the honey potential of these species were taken into account the main use of vegetation cover, as food for animals, which reduces the ability of honey.

Honey potential indicators and their values are presented in table 2.

Table 2. Honey potential of grasslands in SubCarpathians Ialomița

Altitude (m)	Nr. bee species	Honey productions (Kg/ha)	The total productions of honey (kg)	The share of the production of honey per year in 2009 in Dambovița county (%)
< 500	57	2-6	25.676-77.028	7-20
> 500	42		38.514-115.542	10-29
Total	99	-	64.190-192.570	16-49

From these data (average for the entire area of the Sub Ialomița grasslands) that the yield potential of honey-bearing permanent grassland is 2.0 to 6.0 kg / ha honey.

The total production of honey that can be made from this area amounts to approximately 16 – 49 % of the country the total obtained in 2009 (395 t).

4. CONCLUSIONS

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In green technology, exploitation of grassland vegetation cover extends to related areas of pastoral area, such as: resource exploitation of natural flora and medicinal honey unpolluted environment, biodiversity and natural ecosystem, development of ecotourism and heritage tourism in the pastoral area. They identified 99 plant species with potential nectareous.

Also, in Ialomița Subcarpathians area nectareous yield potential of permanent pastures is from 2.0 to 6.0 and the total honey production can be achieved on the surface of this complex pastures equals 16-49% reported from the total of year 2009 for Dâmbovița country.

5. REFERENCES

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