THE QUALITATIVE APRECIATION OF THE SOILS FROM THE COJOCNA HILLS - THE TRANSILVANIAN PLAIN

APRECIEREA CALITATIVĂ A SOLURILOR DIN DEALURILE COJOCNEI - CÂMPIA TRANSILVANIEI

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Abstract: *The aim of this paper is to present the situation of soils productivity of the soil cover of the Cojocna Hills. For that purpose we have tried to characterize the morphological unit, climate, vegetation and soils covers occurring within this area. In this framework, on the basis of data from field and laboratory investigations, the soils of this region were analyzed in categories of soils favourability. Five classes of favourability are presented, each class including a varied number of situations. The correlation between soil taxonomic and land site productiveness of this region is also shown.*

Rezumat: *Scopul acestei lucrări este prezentarea situației capacității de producție a învelişului de soluri din zona Dealurilor Cojocnei. În acest scop am caracterizat morfologic unitățile de sol, condițiile de climă, vegetație şi învelişul de sol din această zonă. În acest cadru, pe baza datelor obținute în teren şi laborator solurile din regiune au fost încadrate în clase de favorabilitate. Sunt prezentate 5 clase de favorabilitate, fiecare clasă incluzînd un număr variat de situații. De asemenea, este prezentată corelația dintre taxonomia solurilor şi productivitatea terenurilor din regiune.*

Key words**:** *favourability category, pretability, soil*
Cuvinte cheie: *clasa de favorabilitate, pretabilitate, sol*

INTRODUCTION

The aim of ground estimation process is to establish the most favourable utility of that, considering so socio – economic conditions, as well the specific environment, too.

A correct estimation, from the economical point of view of soil workability is represented by an action which involves some hardness. Firstly, this estimation involves many attributes, which will include a lot of aspects of soils quality in frame of some indices, at least to assign economical value those indices.

MATERIAL AND METHOD

The research of ecopedological conditions and land judging, ordering and data processing was realised according with"Metodologia elaborării studiilor pedologice-ICPA-1987" (volumes I, II and III), supplement with soil classification about "SRTS-2003", as well using a software BDUST-B 5.3 (Baza de date a unităților de sol-teren ICPA-2005).

RESULTS AND DISCUSSIONS

From the total agriculture areas, which were studied the majority are arable areas (949 ha), followed by pasture and meadow (541 ha) (Table 1)

Table 1

The frame of soils unit in favourable utility from Cojocna area

Utility mode	urface ha)	Favourable utility (ha)				
		I	I I	I II	I V	V
Arable	49	0	0	4 66	2 46	2 35
Pasture and meadow	41	0	8 5	1 56	2 50	4 8
Unproductive		0	0	0	0	0
Total	490	0	8 5	6 22	4 96	2 83
Rate	00%	0 %	5 ,70%	4 1,74%	3 2,29%	1 8,99%

The arable areas hold the arise weight from the total agriculture areas were studied, which on 5,70% belonging II category, 41,74 % in III category, 32,29 % in IV category and 18,99 % in the last quality category.

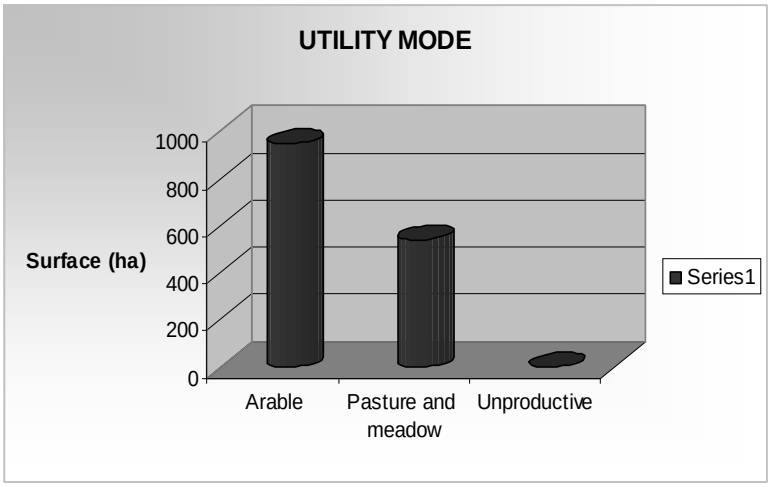

Figure 1 Utility mode

In correlation with variability of geomorphologic factors, which impose the existence of varies landscape units, which linking on parent material, climatic and hydrologic, as well the different anthropic intervention, was result a pedologic cover with specific character.

According with Romanian System of Soils Taxonomy (SRTS-2003), frame of area which belong to domain of Cojocna – Sic Hills were identified a number of 8 soil type and 63 of ecological homogeneous territory - TEO (table 2).

Table 2

The evidence of agricultural areas on soil type

US	Soil type	Ha	%
1	Régosol	45	3,05%
2	Fluvisol	160	10,83%
3	Chernozem	285	19,3%
4	Phaeozem	523	35,41%
5	Gleysol	90	6,09%
6	Solonchak	2	0,14%
7	Solonetz	103	6,97%
8	Eroded soil	269	18,21%
	TOTAL	1477	99,13%

CONCLUSIONS

Concerning the spatial assessment, we can affirm that, most of the favourable areas for agriculture are on river meadow area, on plane relief units with good and very good supply with nourishing components.

On strong slope side, the ecological conditions are poor for the majority of agricultural crops. The different ecological condition, typical of the studied area, will be influence the optimize work on agricultural crops structures in this region. In this way, on the agricultural area which was combined favourable conditions, but in the present crops conditions, too, which in predominate cereals, optimize will be relative easy to realize.

Following that, we can affirm, that to knowledge the pedogenesis and socio - economic factors, may constitute an important mean in choosing the most efficient way to durable utility of agricultural areas of this region.

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