ON THE YIELDING CAPACITY OF THE MAIN SOILS OF THE REMETEA MARE COMMUNE (COUNTY OF TIMIS)

CAPACITATEA DE PRODUCȚIE A PRINCIPALELEOR SOLURI DIN COMUNA REMETEA MARE, JUDEȚUL TIMIȘ

ANIŞOARA DUMA-COPCEA, M. STEPĂNESCU, CASIANA MIHUȚ, S. COPCEA

University of Agricultural Sciences and Veterinary Medicine of the Banat' Timişoara

Abstract: *The Remetea Mare territory is part of the group of south-western hydrographical system, the Timis-Bega hydrographical basin. Within the studied perimeter, euutricambosoils cover 27.69% of the area, preluvosoils 35.55%, and pelosoil 4.26%.*

Rezumat: *Teritoriul Remetea Mare face parte din grupa sistemelor hidrografice sud-vestice, bazinul hidrografic Timiş-Bega. În cadrul perimetrului cercetat eutricambosolurile ocupă o suprafață de 27,69%, preluvosolurile 35,55% iar pelosolurile 4,26%.*

Key words*: soil, capacity, favourability*
Cuvinte cheie: sol, capacitate, favorabilitate

INTRODUCTION

Operation and ranking land within favourability classes for the main crops cultivated in the area under study revealed a series of limiting factors that act on the lands yielding capacity, such as: soil reaction, low porosity, moisture excess, etc.

MATEIAL AND METHOD

In assessing lands for natural conditions each of the indices mentioned except for index number 69 that intervenes directly participate in the establishing of assessment grande for an assessment coefficient that oscillates between 0 and 1, depending on the total unafavourableness of favourasleness of the grade for the requirements of the use to take into account. For each index depending on its scale and on its use crap we made up tables containing the values of the coefficients. To make the assessment calculus we have chosen from the multitude of environmental conditions that characterise each land unit within the District of Remetea Mare only those considered most important, easier and more accurate to measure, that can usually be found in soil study works, called assessment indices.

RESULTS AND DISCUSSION

Table 1

The favourability of tha soils of the Remetea Mare connty for wheat, barley, corn, sun-flower

Nr. Crt	The soil type	Wheat		barley		corn		sun-flower	
		Note evaluation	Fertility class	Note evaluation	Fertility class	Note evaluation	Fertility class	Note evaluation	Fertility class
1.	Pelosoil	90	II	80	III	80	III	80	III
2.	Preluvosoil	81	III	72	III	72	III	72	III
3.	Eutricambosoil	52	V	46	VI	65	IV	51	V

As a result of assessment grade calculus, pelosoil got 90 points, i.e. 2nd fertility class for wheat crops and 80 points, i.e. 3rd fertility class for barley, maize, and sunflower crops. Preluvosoil has assessment grade values between 81 and 72, i.e. 3rd fertility class for all the

crops. Eutricambosoil has assessment grades with values between 46 and 65, i.e. 4th, 5th, and 6th fertility classes.

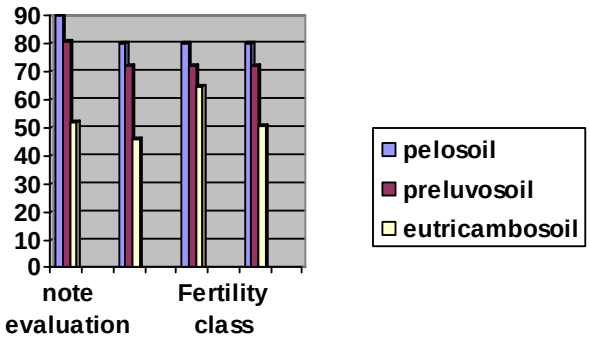

Fig. 1 The favourability of tha soils of the Remetea Mare connty for wheat, barley, corn, sun-flower

Table 2

The favourability of the soils in the Remetea Mare connty for potatoe and beet

Nr. Crt.	The soil type	Potatoe		Beet	
		Note evaluation	Fertility class	Note evaluation	Fertility class
1.	Pelosoil	65	IV	72	III
2.	Preluvosoil	58	V	65	IV
3.	Eutricambosoil	59	V	65	IV

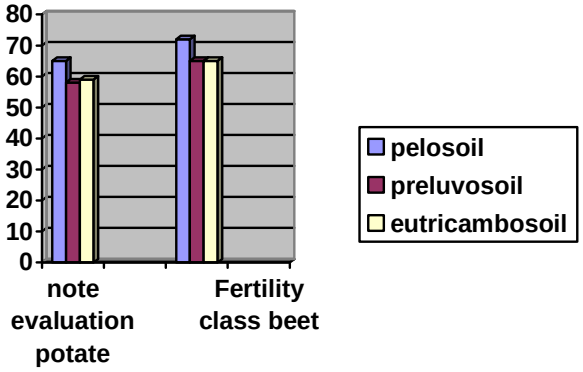

Fig. 2 The favourability of the soils in the Remetea Mare connty for potatoe and beet

Pelosoil has assessment grades with values of 65 points, i.e. 4th fertility class for potato crops, and 72 points, i.e. 3rd fertility class for beet crop. Preluvosoil has values of the assessment grade of 58 points, i.e. 5th fertility class for potato crop, and 65 points, i.e. 4th

fertility class for beet crop. Eutricambosoil has values of the assessment grades of 59 points, i.e. 5th fertility class for potato crop, and of 65 points, i.e. 4th fertility class for beet crop.

Table 3

The favourability of the soils in the Remetea Mare connty for oil flax, spin flax, hemp

Nr. Crt.	The soil type	Oil flax		spin flax		Hemp	
		Note evaluation	Fertility class	Note evaluation	Fertility class	Note evaluation	Fertility class
1.	Pelosoil	80	III	65	IV	80	III
2.	Preluvosoil	72	III	58	V	73	IV
3.	Eutricambosoil	41	VI	51	V	39	VII

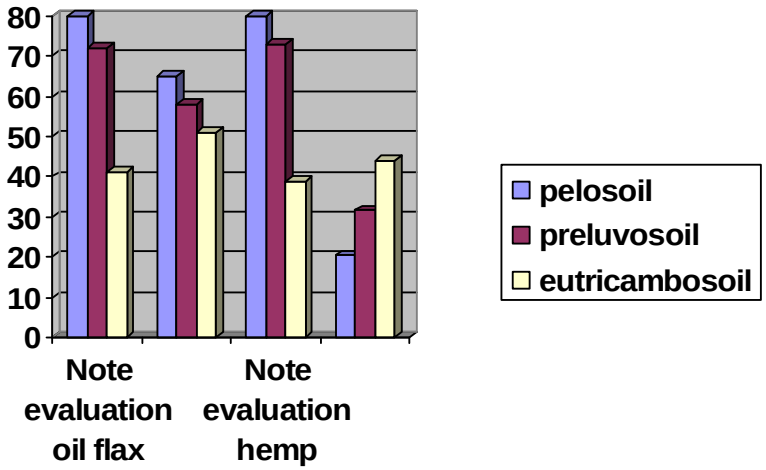

Fig. 3 The favourability of the soils in the Remetea Mare connty for oil flax, spin flax, hemp

Pelosoil has assessment grades with values of 80 points, i.e. 3rd fertility class for oil-flax and hemp crops, and 65 points, i.e. 4th fertility class for fibber-flax crop. Preluvosoil has values of the assessment grade of 72 points, i.e. 3rd fertility class for oil-flax crop, 58 points, i.e. 5th fertility class for fibber flax crop, and 73 points, i.e. 4th fertility class for hemp crop. Eutricambosoil has values of the assessment grades of 41 points, i.e. 6th fertility class for oil flax crop, and of 39 points, i.e. 7th fertility class for hemp crop.

Table 4

The favourability of the soils in the Remetea Mare connty for wine, table vinegaral

Nr. Crt.	The soil type	wine		table vinegaral	
		Note evaluation	Fertility class	Note evaluation	Fertility class
1.	Pelosoil	72	IV	72	IV
2.	Preluvosoil	65	IV	64	IV
3.	Eutricambosoil	65	IV	57	V

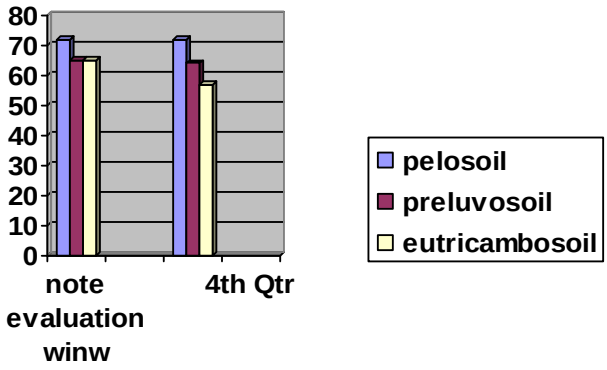

Fig. 4. The favourability of the soils in the Remetea Mare connty for wine, table vinegaral

For table grapes vine crops, the values of the assessment grade total 72 points, i.e. 4th fertility class. Preluvosoil has values of the assessment grade of 65 points, i.e. 4th fertility class for table grape vine crop. Eutricambosoil has values of 65 points, i.e. 4th fertility class for wine vine crop and 57 points, i.e. 5th fertility class for table grape vine crop.

Table 5

The favourability of the soils in the Remetea Mare connty for pastures and hay

Nr. Crt.	The soil type	Pastures		Hay	
		Note evaluation	Fertility class	Note evaluation	Fertility class
1.	Pelosoil	81	II	72	III
2.	Preluvosoil	73	III	65	IV
3.	Eutricambosoil	65	IV	52	V

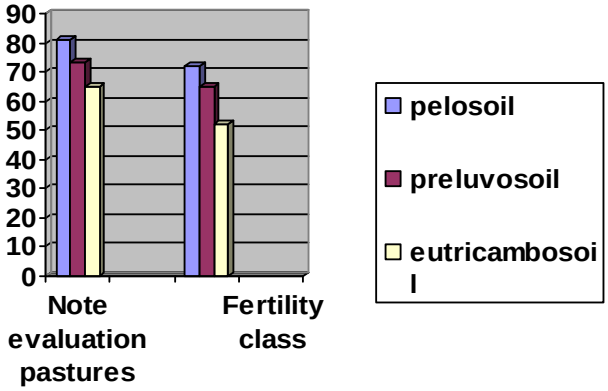

Fig. 5 The favourability of the soils in the Remetea Mare connty for pastures and hay

In the case of grasslands, pelosoil has values of the assessment grade of 81 points, i.e. 2nd fertility class, and for hay-making fields, a value of the assessment grade of 72 points, i.e. 3rd fertility class. Preluvosoil has values of 73 points, i.e. 3rd fertility class for grasslands and 4th fertility class for hay-making fields. Eutricambosoil has values of the assessment grade of 65 points, i.e. 4th fertility class for grasslands and values of the assessment grade of 52 points, i.e. 5th fertility class for hay-making fields.

Table 6

The favourability of the soils in the Remetea Mare connty for vegetable

Nr. Crt.	The soil type	Vegetable	
		Note evaluation	Fertility class
1.	Pelosoil	80	III
2.	Preluvosoil	72	III
3.	Eutricambosoil	50	VI

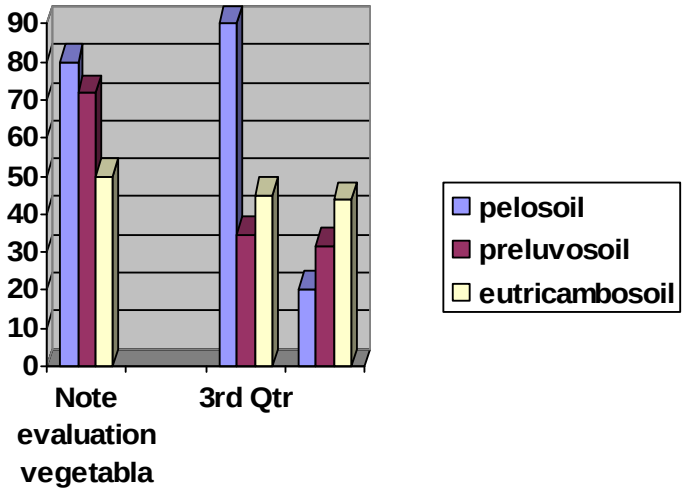

Fig. 6 The favourability of the soils in the Remetea Mare connty for vegetable

For truck farming, pelosoil has values of the assessment grade of 80 points, i.e. 3rd fertility class, while preluvosoil has values of the assessment grade of 72 points, i.e. 3rd fertility class and eutricambosoil has values of the assessment grade of 50 points, i.e. 6th fertility class.

CONCLUSIONS

As a result of calculating assessment grades for the studied soils, we can se that pelosoil is suitable for the studied crops, followed by preluvosoil and eutricambosoil. Pelosoil covers an area of 1244.89 ha, i.e. 14.32%.Preluvosoil covers an area of 3089.90 ha, i.e. 35.55% and eutricambosoil covers an area of 2406.79 ha, i.e. 27.89% of the total studied area.

The Remetea Mare territory is part of the group of south-western hydrographical system, the Timis-Bega hydrographical basin.

Within the studied perimeter, eutricambosoils cover 27.69% of the area, preluvosoils 35.55%, and pelosoil 4.26%.

To make the assessment calculus we have chosen from the multitude of environmental conditions that characterise each land unit within the District of Remetea Mare only those considered most important, easier and more accurate to measure, that can usually be found in soil study works, called assessment indices.

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