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POSSIBILITIES FOR IMPROVING THE MANAGEMENT OF THE MEADOWS FROM BANAT MOUNTAIN AREA

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Abstract: *The efficient management of mountain meadows and the sheep production system in conditions of sustainability of the area, requires the use of good exploitation practices on pastures, by implementing integronec management that will include the management of meadows, soil, water and vegetation. Management measures for good water management to express production according to the capacity of the soil to produce vegetative mass, must provide for the provision of a sufficient quantity of quality water, using where possible automatic sprinklers or other watering systems and in sufficient quantities. The implementation of the best vegetation management on the meadows from Banat mountain area depends on the variation of the production factors, the number of sheep grazing on a unit of area, the grazing period on a pasture area, the number of available meadows and the productivity of the meadow. Maintaining or improving the vegetation on the meadows depends on the carrying capacity of the meadow, the number of grazing sheep and the grazing capacity according to the nutritional value of the meadow.*

• Introduction

The ecosystem in general and the mountain one in particular is defined as an ensemble consisting of biotope and biocenosis, in which close relationships are established both between organisms and between them and abiotic factors, and can be defined as "the fundamental functional unit of the biosphere, with a determined type of interactions of inorganic and organic components and its own energy configuration, which ensures the development of biogeochemical cycles and energy transformations in the given fragment of the earth's crust."

In the mountain area, the ecosystem includes:

Meadows, pastures and hayfields, considered natural ecosystems and constituted dominant elements of the rural environment with a greater biological diversity than cultivated areas. At the level of Romania, only in the mountain area there are 3,200,000 ha of agricultural land of which approximately 2,500,000 ha are natural meadows.

These natural ecosystems are:

- particularly fragile;
- the soils have a natural acidity;
- floristic and faunal composition is influenced by the quality of the soil;

• Material and method

Because socioeconomic value of mountain meadows ecosystems changes depending on the conditions in which vegetation, sheep and people evolve, within this scientific approach, we taking into account the characteristics of the ecosystems from Banat mountain area, represented by meadows and hayfields, we conducted research with the aim of proposing for the implementation of the best managerial practices of use through grazing, by perfecting the technological management systems regarding the exploitation knowing that, gravity favors the drainage of meadows being essential for the load of sheep in the ecosystem, the orientation of the slopes determines the amount of solar radiation that directly influences the floristic variety of grasslands, solar radiation in large quantities has negative effects on sheep and flora and the temperature determines the different development of the vegetation, with effects on ensuring the food requirement for the expression of the production to the biological value of the genetic material exploited on the pastures and mountain meadows.

• Results and discussions

The efficient management of meadows and grazing systems from the area under analysis, in conditions of sustainability, implies the proposal for the implementation of good exploitation practices through integronec management, which will include the following types of management, of meadows, soil, water and vegetation.

1. **Management of mountain meadows.** Management through the implementation of new improved management principles of pasture exploitation and grazing models for transhumance or semi-transhumance sheep from mountainous rural area of Banat has numerous effects.

2. **Soil management** has positive effects, through the new implemented measures aimed at maintaining its state of health by combating: acidification, compacting, mineral imbalance, erosion, water conservation, loss of biodiversity. Some researchers show that the soil state of health of mountain meadows is also threatened by salinization and alkalization, and for their recovery it is considered that the following steps must be taken.

3. The **management of water provision** on mountain meadows must consider the recommendations of good practices.

4. **Vegetation management.** Sheep must have access to pasture to graze whenever they need, with the condition of maintaining or even improving vegetation .

• Conclusions

The meadows from Banat mountain area can be considered true natural ecosystems because they constitute dominant elements of the rural environment, with great diversity, but some of them are particularly fragile, due to the composition and quality of the soils. The management of their sustainable use requires the implementation of the best management practices for optimal grazing of sheep during the summer. The best management practices of grasslands, in addition to well-managed rotational grazing, for their protection as natural ecosystems must also provide for their management to ensure the necessary amount of vegetative mass for the maintenance and production of sheep for as long as possible. The vegetation management on the meadows and maintaining their sustainability, through the measures undertaken by the management, must take into account the loading capacity of the meadow, the optimum number of sheep per surface unit and the grazing capacity to which measures to restore the floristic composition will be added, all as concrete measures of integronec production management.