

THE NEED FOR THE CONSERVATION AND EXTENSION OF THE AGROSILVOPASTORAL SYSTEM WITH DOWNY OAK (*QUERCUS PUBESCENS* Willd.) IN DOBROGEA, ROMANIA

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Abstract. *On fairly large areas of the Dobrogean Plateau we can find agroforestry systems, respectively dry grasslands with isolated trees of downy oak or other tree species (e.g. *Carpinus orientalis*, *Quercus pedunculiflora*), which provides shade for animals. Our study shows a higher level of nutrients in the soil under the oaks, due to organic fertilizers resulting from animals sheltering in the shade. Also, in the vegetal layer under the oaks, the participation of forage species represents 56%, by 20% higher than in the treeless grassland. Therefore, the pastoral value of the grassland under the oaks reaches 37 points, almost 16 points higher than in the open field. Also, the fodder production exceeds 4t / ha of green mass, more than double that of the grassland located outside the shade of the trees. To these advantages regarding the productivity of the grasslands from the agrosilvopastoral system we can add the acorn production of the oaks and the beneficial effect of the shade for the animals. All these results argue for the conservation and expansion of the agroforestry system in the context of global warming.*

Keywords: agrosilvopastoral system, dry grasslands, pastoral value, feed production

1. Introduction

Global warming has accelerated research on agroforestry or agrosilvopastoral systems as a measure to prevent the effects of high temperatures and lack of rainfall [1,8,9].

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