



## Fallow-deer grazing as a way of silvopastoral management of poor-quality lands

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Utilization of available agricultural lands in Poland is limited mainly due to unfavorable soil conditions and high fragmentation of parcels - about 60% of the area is taken up by light and very light soils while the land unutilized by farmers covers approx. 2 million ha (14% of agricultural area). Hence, in many cases, *deer* farming is an interesting alternative for Polish farmers.

Fallow deer (*Dama dama*) is a species adapted to mosaic arable, grasslands and forest landscape with forage quality variation, more resistant to disease and parasites than red deer. In order to maintain high welfare, the grazing area should be located on diversified terrain with woodlands and trees complexes and with access to fresh water. Optimum livestock density in rotational systems is between 5-15 animals ha<sup>-1</sup>, depending on forage quality. Minimum 2m high mesh fences with electric fence at the bottom are recommended. Paddocks should include extra feeding racks, mineral licks and winter shields. Special room for catching should be planned. In comparison to other domesticated ungulates, level of faecal contamination is not high, reducing nutrients loss. Faecal nutrient contamination may be reduced further by introduction of woody plants catching up nutrients. Grazing can be combined with traditional orchards or high-quality wood production (deer feed on acorns), but trees should be protected against browsing and debarking. Leaves and shoots of hazelnuts, elderberry, mountain ash, beech or willow are eagerly eaten by the animals. The bark of barberry is considered to improve deer productivity and welfare. In general, the more diversified vegetation within the paddock, the better meat quality. According to economic studies, net margin from fallow deer production is the highest or comparable to cattle production. Moreover, their mild behaviour encourage people to keep them in agro-touristic farms, attracting visitors.

### Further information:

Karpowicz A., 2012. *Fermowy chów jeleni i danieli* [in Polish] *Rearing of red deers and fellow deers*. MODR Karniowice.

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