



Renovation of flooded meadows using meadow foxtail grass added to standard seed mixture

1 Description of the innovation

The innovation was created at a farm where during the growing season, part of the meadows located in the Noteć valley localized on organic and alluvial soils are periodically flooded by river waters. The long flooding leads to the losses of valuable forage grasses and causes significant changes in their botanical composition. With a high share of weeds and low productivity grass species in the botanical composition the meadow sward is not suitable for an efficient milk production.

In order to optimize the fodder production and increase the share of valuable forage species in the sward the farmer decided to renovate them. The problem that has appeared, was the lack of seed mixtures on the market containing species resistant to such extreme habitat conditions. All of the seed mixtures offered were composed out of a high-value species however, no mixture included a composition that had in its content grasses resistant to periodically floods. The developed innovation is an addition of meadow foxtail seeds ordered in a seed company to an standard commercial mixture used to the renovation. Meadow foxtail is a typical grass species which occurs in the botanical composition of flooded meadows and is naturally present in very low share on the Noteć river meadows. It is a grass with good fodder value, resistant to harsh climatic conditions and periodically floods, well-growing on alluvial soils.



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Meadow foxtail (*Alopecurus pratensis*) is valuable grass species resistant to flood



Supplementing the composition of standard commercial mixture during the renovation by seeds of the meadow foxtail increase the productivity of flooded meadows



2 Results obtained with the adoption of innovation

The direct result of this innovation worked out in this particular farm, because it is possible to obtain higher and better quality dry matter yields from grasslands that were originally very low productive. The extra fodder production can be used as a reserve or for the increase of the herd and animal production. Renovation with the use of the seed mixture with addition of meadow foxtail not only improve the grassland production but also had given the sward better tolerance for floods and the persistence of the performed renovation.



Advantages

- better quality of sward and increase of dry matter yield
- tolerance of sward botanical composition for floods
- persistence of the performed renovation

Disadvantages

- availability of meadow foxtail seeds on the market
- in an extreme wet year, there might be a possibility for not gathering any yield

More information

Golińska B., Goliński P. 1997. Desirable features of *Alopecurus pratensis* breeding. Proceedings of the 20th Meeting of Eucarpia Fodder Crops and Amenity Grasses Section, Radzików, 91-94.

Golińska B., Goliński P. 1997. Variability of morphological, biological and chemical properties of *Alopecurus pratensis* from the point of view of its fodder and landscape value. *Grassland Science in Europe*, 2, 215-219.

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