

## Kalmer Visnapuu: Biodiversity is not just a buzzword

If a chance passer-by happens upon the Mädaepa oak grove, they cannot help but notice it. Set within an open landscape, the oaks exude a quiet sense of peace and dignity, while each season lends the grove its own distinct charm. There is a lingering sense of something ancient in the air, an echo of a time when this place served as an important site of worship and gathering.

A hare darts across the snowy field, ears alert; moments later, another disappears into the bushes. *'This place is like an oasis of biodiversity in the midst of large-scale agricultural production. The diverse landscape and vegetation are valued by the wildlife as well. Surrounding it are vast monoculture fields treated with chemicals, and just before Midsummer's Day, when intensive spraying of the fields begins, the animals seek refuge here in the copse. I've seen as many as twenty roe deer and hares at once, all searching for food and shelter here,'* says **Kalmer Visnapuu, manager of the Mädaepa wooded meadow.**

### A rich grassland ensures food security

He is himself a successful large-scale producer, a seventh-generation farmer and, at heart, a livestock breeder. His farm, **Piira Mahe**, is home to 600 beef cattle. At the same time, he is convinced that there are limits to the efficiency of modern agricultural production, and that conventional farming must increasingly incorporate nature-based solutions. *'I believe that biodiversity is not just a buzzword. Biodiverse ecosystems are more resilient and continue to function even under adverse conditions, whereas monocultures are extremely vulnerable to change. The truth is, we don't know what the future holds. Droughts are likely to become more severe, which makes preserving soil life and maintaining biodiverse grasslands essential from a food security perspective. Each year, around a million tonnes of Estonian grain are loaded onto ships and exported. This means that we are removing 3–6 tonnes of biomass per hectare annually. But what are we putting back to help the soil biota in the fields recover? For the first 30 years, we may not even have noticed that our farmland was being depleted – but what about the future? Perhaps soil biodiversity will one day return to the fields precisely from places like this! Heritage meadows such as this one have endured a thousand years of climatic, economic, and historical changes – and with proper care, they will continue to do so in the future.'*

### Grazing is important

The Mädaepa oak grove is part of the land belonging to the neighbouring Mädaepa Manor, where a 48-hectare landscape conservation area has now been established. Kalmer leased the land four years ago and began maintaining it with his own livestock and machinery.

*'I usually mow in the second half of July and then clear the hay. About three weeks later, in mid-August, I bring the animals in and leave them here until mid-October. The wooded meadows of Viru County are so fertile that if I only mowed once, the grass would grow too tall.'*

*Grazing, on the other hand, produces excellent results. I can adjust the grazing load as needed – some years, depending on the weather and the condition of the meadow, twenty animals are enough; other years, I may need thirty,*’ he explains.

### **Good conditions for everything**

A couple of years ago, as part of the **“ForEst&Farmland” project**, the amphibian ponds in the wooded meadow were restored. These ponds are home to the increasingly rare common spadefoot toad and the northern crested newt. According to Kalmer, the water around the ponds in the impressions left by grazing cattle warms up quickly in spring, providing ideal breeding conditions for the amphibians. *‘This is an important part of their life cycle, even though it may not look particularly appealing to passers-by. However, moderate trampling is actually beneficial for the soil, flora, and fauna. The restoration of heritage meadows can sometimes lead to conflicts, as animals may wander into areas traditionally used by people. But we have sensible people here, and by now we’ve grown used to the fact that cattle are also part of our landscape’.*

The most striking features of the Mädaepa wooded meadow are its ancient oaks, some of which are over three hundred years old. The site is also home to the rare hen-of-the-woods fungus. *‘Since I began grazing here, I’ve seen how the meadow plants are returning. Take the globeflower, for example – it’s pollinated by a fly that lives in symbiosis with grazing animals. So without the animals, there wouldn’t be any globeflowers here either,’* says Kalmer.

*‘We thin the copse every five to six years; otherwise, mowing between the trees becomes difficult. Each year, after the hay harvest, I remove fallen trees and some branches, but I leave part of the wood here to decay. These piles provide an ideal wintering spot for newts,’* he explains.

Kalmer enjoys the beautiful view of the wooded meadow in the early morning, before the workday begins, when he walks the land to check that the hedgerows are intact and everything else is in order. *‘We also offer the additional service of assessing our own heritage meadows, and I’ve made an effort to identify the plant species in the area. Based on this data, a database has been created that can be used to make informed land management decisions and offer insight into the processes unfolding in nature’.*

### **A good caretaker needs to understand the processes taking place in nature**

Kalmer is an experienced livestock farmer and heritage meadow caretaker who has been following developments in this field for years. *‘In the past, problems arose because ARIB officials and inspectors had very different backgrounds. For an inspector with an agronomy background, a field that met the requirements was a weed-free monoculture. They asked why my heritage meadow wasn’t as neat as my neighbour’s beautiful arable land. However, the changes that have taken place in the sector over the past couple of years are positive and logical, and the attitude of an official with an environmental background is quite different,’* he notes, adding that close communication

and collaboration with experts in environmental protection, species conservation, and academia is very important.

According to Kalmer, most of the activities involved in meadow management are familiar and well-known to every farmer: *'But, of course, there are also new and interesting aspects. I think that training alone is not enough to create a heritage meadow caretaker. A longer-term perspective and understanding are still needed. Changes to the landscape don't happen overnight; it takes time, and some experience is essential. If it were up to me, I wouldn't mow this area every year, but every other year. In some years, I'd limit myself to grazing alone'*.

### **Around 300 kg of beef per hectare**

Kalmer also believes that it is wrong to maintain wooded meadows solely for the sake of subsidies, and that it would be far more sensible to manage them properly. *'For example, I estimate that there is an increase of around 300 kg of beef per hectare here'*. He adds that, since we had a million hectares of meadows a hundred years ago and now only 42,000, from a livestock farmer's perspective, the area of heritage meadows could be gradually expanded – this would also provide an opportunity to expand beef cattle and sheep farming.

This is how the farmer has grown his own business: *'I have around 800 hectares of grassland. Arable land has been converted into grassland, some of it permanent, some temporary, from which I produce my main feed and where I graze my animals. These areas of a few hundred hectares are like oases amidst the monocultures, because biodiversity is also increasing there. I have been practising this form of grassland rotation for 20 years now'*.