



Numbers corresponds with numbers on the board

Biomass and its management

1.

Annually, Club collects around 100 tonnes of biomass from the peatlands used in the Lubuskie Voievodship alone. For many years, the biomass was stored on the mineral margin of the mire and accumulated in an amount that again threatens the protection of the mire. The nutrients and seed base removed along with it again flow into the mire with rainwater - making conservation efforts even more difficult.

Mowing by hand or using light equipment takes place outside the vegetation season, and therefore in not always favorable weather conditions. The species composition, humidity of the biomass makes it of very poor quality that cannot be easily utilized, e.g. as fodder, and the need for manual harvesting and transport over considerable distances (up to several dozen km) makes it difficult, tedious and uneconomical. Unfortunately, due to the small area and location in hard to reach places - mowing with groomers is not possible in the case of our mires.

2.

Mowing is primarily used to reveal the lowest moss layer and ensure proper light conditions, improve water conditions and prevent shrubs and trees from entering the mire.

The mown biomass is then collected and transported to the station in Owczary, where it is divided into 3 fractions: dry, moist and wet.

3.

The best quality biomass - dry - is mixed with wood chips (e.g. from shrub removal from grasslands) or sawdust and used for the production of briquettes. This material is then used to heat the Station building in a special biomass stove - adopted for this type of fuel.

4.

Biomass of inferior quality - moist - is used as bedding for sheep. After its consumption, together with sheep manure, it is transferred to a manure plate, where it is composted along with the third biomass fraction - the wet one, which was previously deposited there. The produced fertilizer (compost) is then used in the weed garden and in the orchard.

Such a biomass processing cycle allows us to save funds from the heating of the Station, buying hay for sheep or fertilizers for the orchard. The funds saved are allocated to the remuneration of employees mowing mires and dealing with biomass processing.

5.

The Belgian organization Natuurpunt, with whom we run the LIFE Green Valleys project, has developed a system for processing grass collected from mowing protected areas in Belgium.

6.

With the help of special groomers adapted to wet areas, the grass is cut, compressed and transported for further processing.

7.

After cleaning and drying, the grass is cut into small pieces. The chopped material is ready for further processing.

8.

Thanks to the complicated machinery in the process of chemical decomposition, the grass is divided into cellulose fibers, proteins and liquid components of the plant cell.

9.

Then, using those fibers, proteins and liquids as raw materials, external companies create new products, i.e. cardboard packaging, horticultural substrates, paper, fertilizers, livestock feed or insulation material.

Photos:

Egg tray mold made of "grassy" cardboard

Peat-less gardening medium containing grass processing derivatives.

Climate-neutral insulation material.

Graphics - own KP coverage based on the information folder of the GrasGoed project co-financed under Interreg Vlaanderen-Nederland