IMPORTANCE, PROTECTION AND MANAGEMENT OF CHESTNUT PASTURES IN SLOVAKIA






1. Managed chestnut pasture during flowering 2. Symptoms of chestnut infection by the fungus *Cryphonectria parasitica* 3. Chestnut provides habitat for many insect species 4. Protected old chestnut in Modrý Kameň area

WHAT AND WHY

Chestnut in Slovakia

The sweet chestnut (*Castanea sativa* Mill.) is one of the oldest introduced tree species in Slovakia, with a long history of cultivation particularly in the Little Carpathians, Upper Nitra, Modrý Kameň, and Slovak Ore Mountains regions. Since the Middle Ages, it has been an integral part of pasture woodlands and orchards, combining economic, ecological, and cultural values. Chestnut pastures created specific mosaic-like habitats with high biodiversity, providing space for plants and animals, stabilizing soil, and improving microclimatic conditions. Thanks to its deep root system, the chestnut also contributed to water retention and carbon sequestration, thus playing an important role in the landscape.

Beyond their ecological value, chestnut pastures hold strong cultural and economic significance. In the Modrý Kameň region, they were closely linked with viticultural traditions, and chestnut festivals that highlight their biocultural value are still celebrated today. Chestnut fruits, once referred to as the "bread of the poor," were a crucial food source in times of famine and continue to be used in gastronomy, valued for their high nutritional quality and suitability for people with allergies. Chestnut pastures therefore represent a unique example of the interconnection between nature, economy, and culture, yet they are increasingly threatened by neglected management, natural succession, and diseases, especially chestnut blight

Keywords: sweet chestnut, chestnut pastures, cultural heritage, biodiversity

HOW THE CHALLENGE IS ADDRESSED

Management and Protection of Chestnut Pastures

The management of chestnut pastures in Slovakia requires a combination of traditional farming practices and modern conservation approaches. In the past, these areas were maintained through regular grazing, mowing, and pruning, which prevented succession and supported a mosaic-like landscape. Today, however, the lack of proper management has led to the overgrowth of pastures with pioneer tree species, which threatens the survival of old chestnut groves as well as the biodiversity associated with them. It is therefore essential to restore traditional land-use practices, engage local communities, landowners, and promote management methods that integrate economic, ecological, and cultural functions.

The most serious threat to chestnut pastures is chestnut blight caused by the fungus *Cryphonectria parasitica*, which has led to the decline of many stands in Slovakia. Biological control using hypovirulent strains has so far proven largely ineffective, and attention is now focused on breeding and cultivating more resistant interspecific hybrids (*C. sativa* × *C. crenata*) as well as on selecting suitable site conditions that may help limit the spread of the disease.

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ADVANTAGES

Ecological, Economic and Cultural Benefits of Chestnut Pastures

Chestnut pastures provide multiple benefits that go far beyond their direct economic use. From an ecological perspective, they represent an important landscape element – they increase habitat diversity, provide space for numerous species of plants, insects, birds and mammals, and thus enhance biodiversity and ecological stability. Their presence also contributes to soil protection against erosion, to water retention in the landscape, and to carbon sequestration, making them an important factor in adapting to climate change.

The economic benefits are reflected mainly in the production of chestnut nuts, which are nutritious, gluten-free, and valuable as a traditional food. Their processing creates opportunities for local gastronomy, traditional products and specialties, while also supporting regional identity and the development of rural tourism. In the past, chestnuts were a vital part of the diet; today they bring new perspectives in ecological farming and agro-tourism.

Equally important is the cultural and historical dimension of chestnut woodlands. They form part of the cultural landscape and the identity of local communities, linked with traditions, folklore, and regular events such as chestnut festivals. Preserving these pastures therefore means not only protecting the natural environment but also strengthening cultural continuity and the bond between people and their land.

HIGHLIGHTS:

- **Restoration and management of chestnut pastures enhance biodiversity and landscape stability.**
- **Proper management enables their sustainable economic and cultural use.**
- **Preserving chestnut pastures safeguards both natural heritage and local identity.**



The removal of dry and severely damaged chestnut trees serves as an effective prevention against the spread of chestnut blight

1ING. MARTINA ŠTĚRBOVÁ, PHD., 2ING. MICHAL PÁSTOR, PHD.

1National Forest Centre, Science and Resarch Division, Department of Forest Policy, Forest and Game Management

2National Forest Centre, Science and Resarch Division, Department of Silviculture and Seed Control

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