



Status of nut tree resources and health in Slovakia

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Overview

- Slovakia **4.9 mil. ha**
- Forest cover: **41.4 %**
- Timber resources: **487.1 million m³**
- Invasions **spread very fast**



Main nut tree species and distribution



Main nut species

Walnut / *Juglans regia*

Hazelnut / *Corylus avellana*

Sweet chestnut / *Castanea sativa*

Black walnut / *Juglans nigra*

Almond / *Prunus dulcis*

Distribution in Slovakia

Widely distributed, mainly in gardens, small orchards,

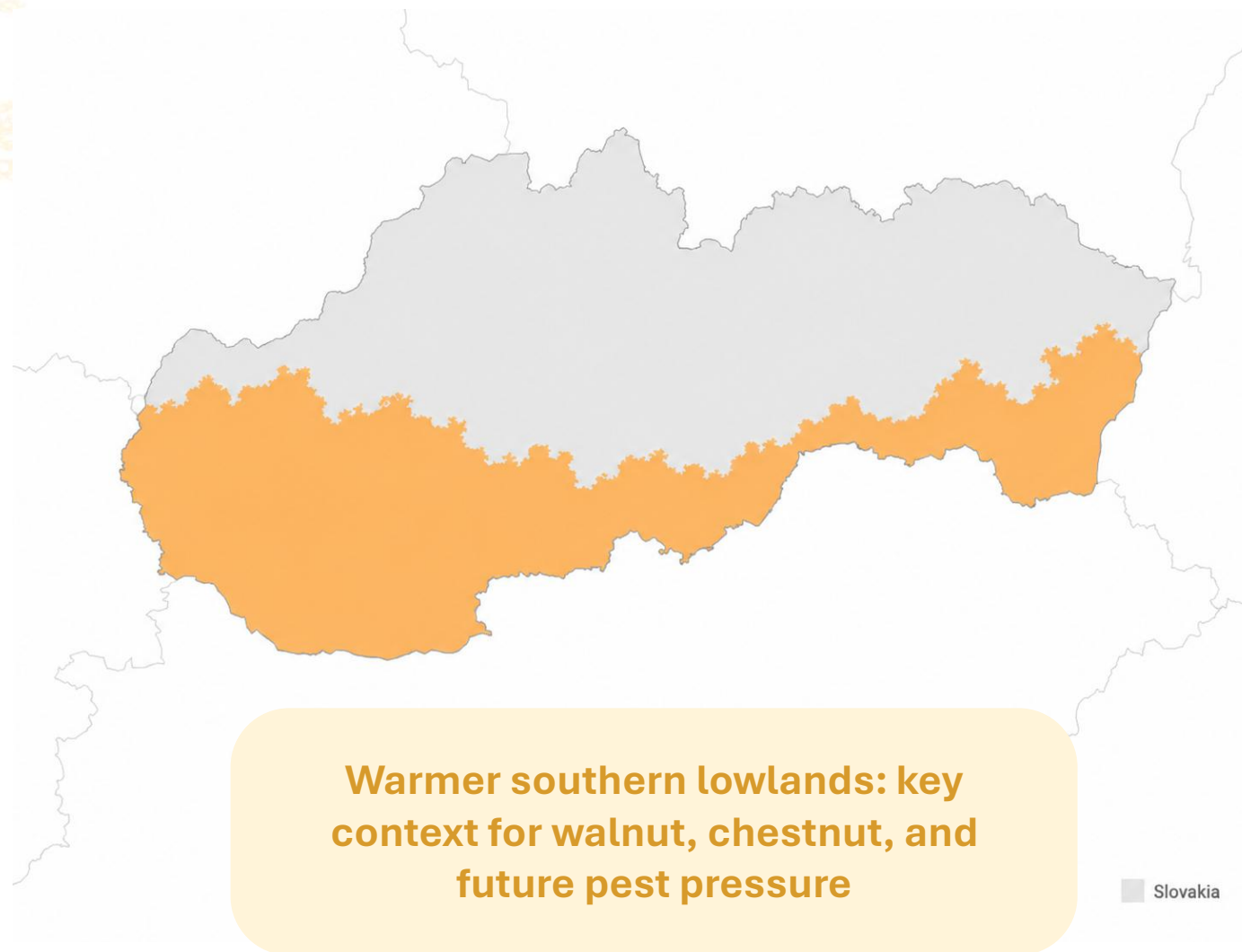
Native and common, mainly in forests, forest edges, hedgerows and gardens.

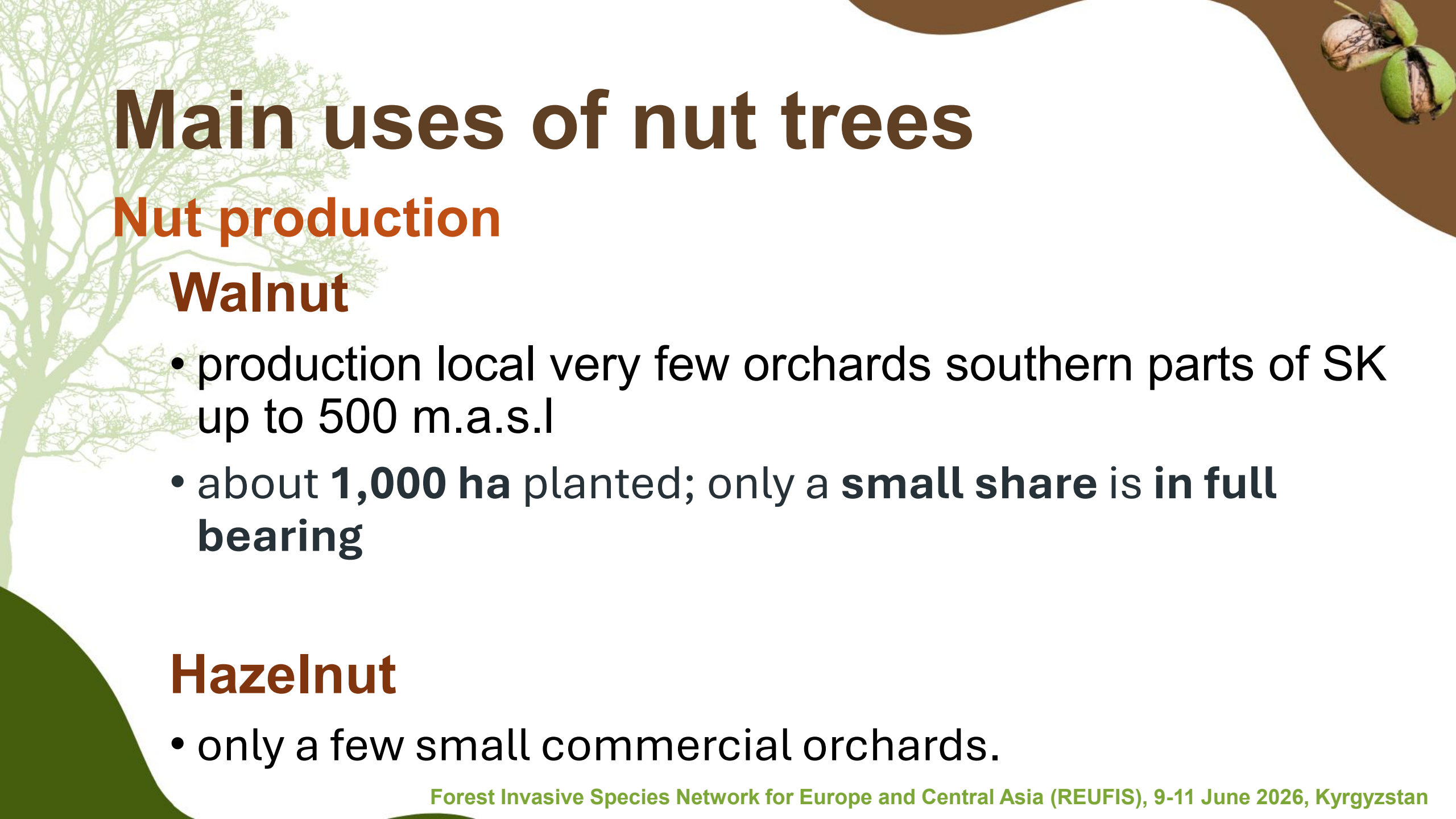
Introduced / historically cultivated species, locally distributed mainly in warmer traditional chestnut-growing areas.

Introduced species, locally present in forest stands, parks and ornamental plantings

Marginal species, limited mainly to the warmest wine-growing regions.

Potential distribution





Main uses of nut trees

Nut production

Walnut

- production local very few orchards southern parts of SK up to 500 m.a.s.l
- about **1,000 ha** planted; only a **small share** is in **full bearing**

Hazelnut

- only a few small commercial orchards.

Main uses of nut trees

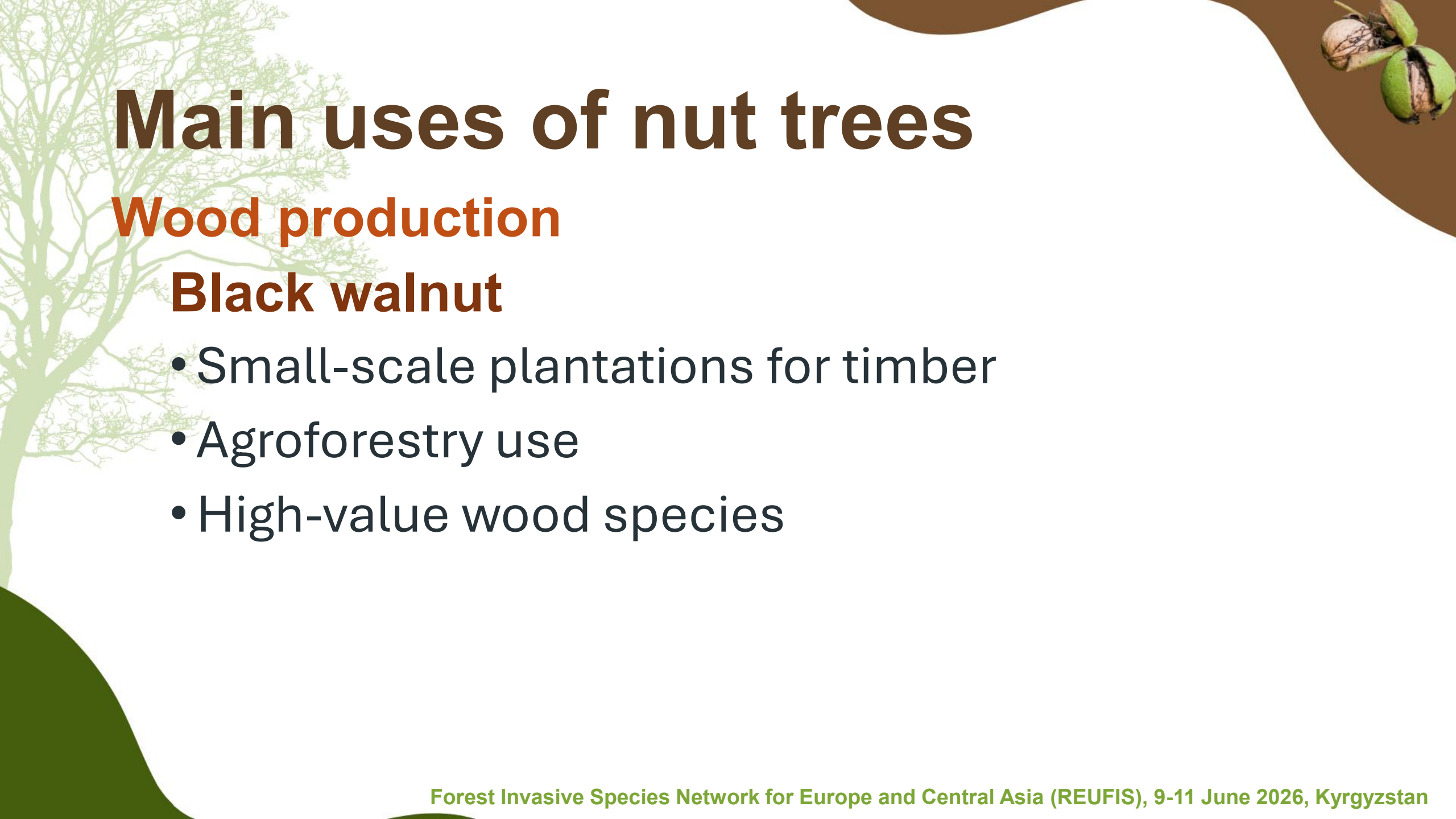
Nut production

Sweet chesnut

- historical orchards; few commercial orchards

Almond

- gardens in the warmest areas.



Main uses of nut trees

Wood production

Black walnut

- Small-scale plantations for timber
- Agroforestry use
- High-value wood species

Trade (**import**/export) of nut products and germplasm

Walnuts

- Imports are increasing

Imports: 2018: 500 t/yr → 2021 - 950 t/yr → 2025 > 1,000 t/yr

- Main **nut import** origins: California, **USA**
- Planting material is also imported:
mostly variety: Chandler and Lara



Main insect pests and diseases of Walnut

Walnut Husk Fly (*Rhagoletis completa* Cresson)

- first record 2018



Photo: Andrej Kunca



Photo: Ján Kollár

Main insect pests and diseases of Walnut



Geosmithia morbida associated with *Pityophthorus juglandis*

Emerging threat: *Ophiostoma juglandis* associated with *Dryocoetes himalayensis*

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Late frost: a growing threat to young walnut shoots



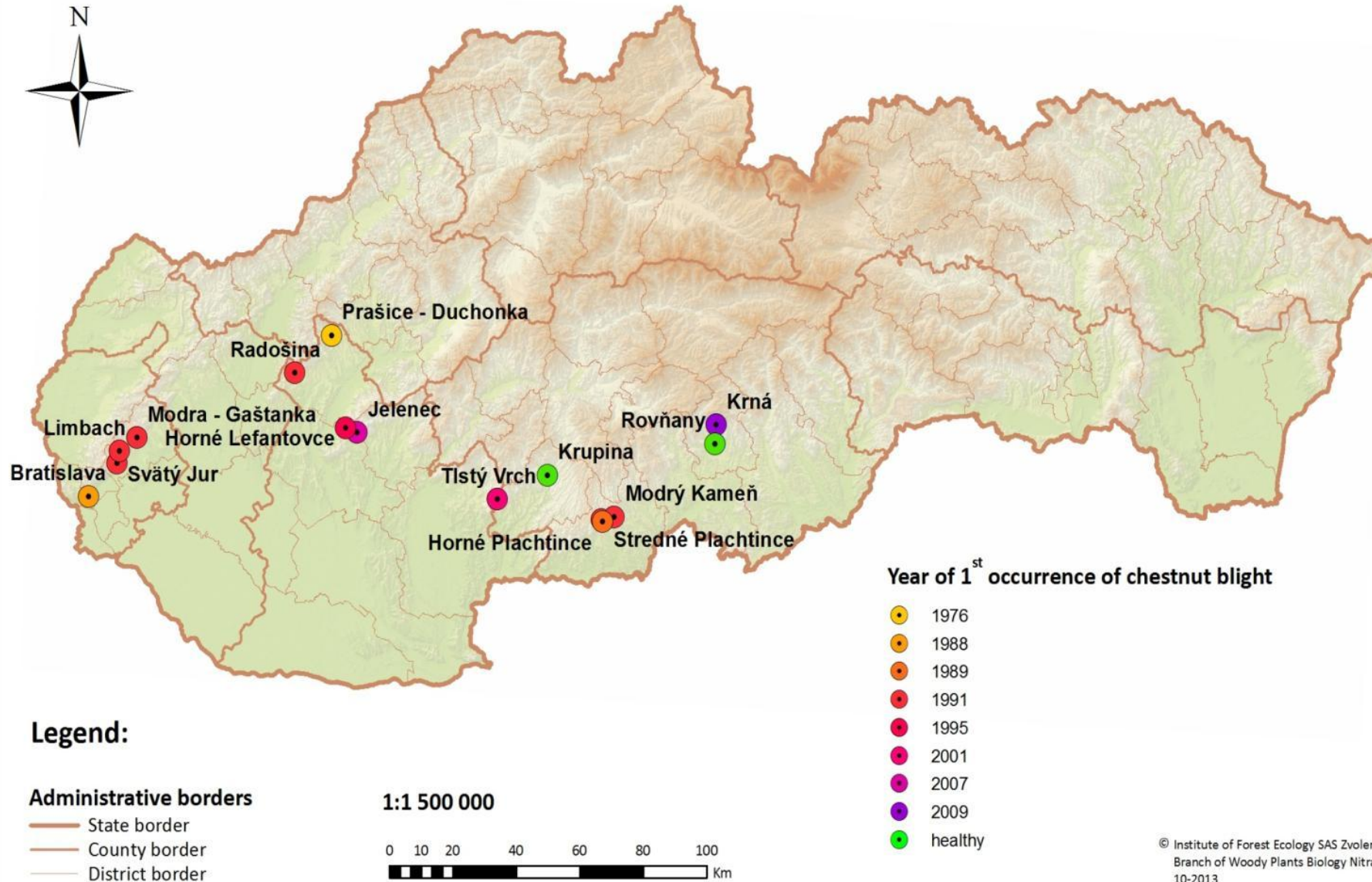
Main insect pests and diseases of Sweet chesnut

Chesnut blight (*Cryphonectria parasitica*)



Photo: Slavomír Rell

Distribution of localities with occurrence of European chestnut (*Castanea sativa* MILL)



Main insect pests and diseases of Sweet chesnut

Dryocosmus kuriphilus – first record 2014



Photo: Slavomír Rell

Main insect pests and diseases of Sweet chesnut

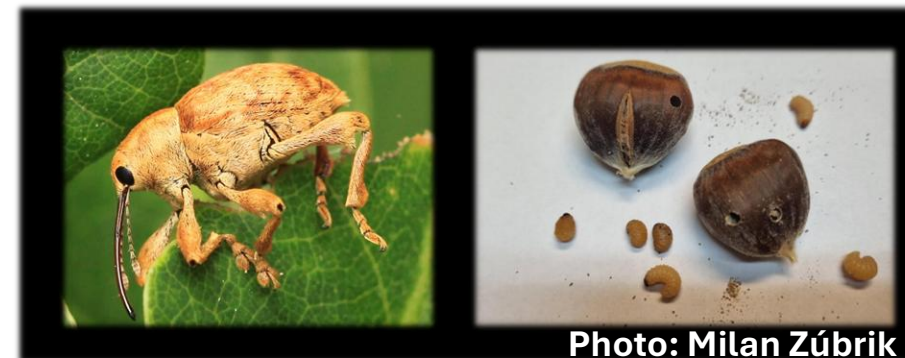
Other pest species

Phytophthora cambivora and *P. cinnamomi*

Curculio spp.

Micosphaerella maculiformis

Tortricidae: Cydia spp., *Pammene fasciana*



Current pest and disease control methods used - **Walnut**

- **Monitoring** with yellow **sticky traps**
- Timed **insecticide** treatment, if needed
- Collection and safe **disposal of infested husks**
- Orchard **hygiene** to reduce overwintering larvae
- Plant **water status monitoring** to optimise irrigation and avoid under- or over-irrigation



Current pest and disease control methods used - Chestnut

- **Monitoring** of chestnut blight and gall wasp
- **Sanitation cutting** and **removal** of infected material
- **Chestnut blight: biological control** using hypovirulent strains



Needs/challenges in management of pest and diseases

- **Fragmented** chestnut **stands** and many small owners
- **Uneven sanitation** against **chestnut blight**
- **Infected** trees are **not** always **removed** or pruned
- Need for coordinated hygiene across localities
- Better guidance for private owners and municipalities



A light green silhouette of a tree with many branches, located on the left side of the slide.Three walnuts, some green and some brown, located in the top right corner of the slide.

Thank you for your attention!