

Phytosanitary risk posed by the EMERALD ASH BORER (*Agrilus planipennis*) in Hungary



Angéla Bodor-Zanker, Sándor Bogya, Anna Kovács, Kolos Lórántfy
National Food Chain Safety Office, Directorate of Plant Protection,
Department of Phytosanitary Measures, Budapest, Hungary



IMPORTANCE OF ASH TREES AND THE RISK POSED BY THE EMERALD ASH BORER IN HUNGARY

Three native forest ash species occur in Hungary: European ash (*Fraxinus excelsior*), Hungarian ash (*Fraxinus angustifolia* subsp. *pannonica*), and manna ash (*Fraxinus ornus*). These species play an important role in both forest and urban habitats. Ash trees are key elements of public green spaces, and their timber is of high quality, widely used, and also valued as firewood with excellent calorific properties. Consequently, ash trees are of outstanding ecological, aesthetic, and economic importance. Environmental stress factors and plant pathogens may weaken native ash stands in the long term, thereby increasing the risk of establishment of other plant health-relevant pests.

In particular, ash stands of European ash and Hungarian ash weakened by *ash dieback* caused by the fungal pathogen *Hymenoscyphus fraxineus* are considered especially vulnerable to the potential establishment of the Emerald ash borer (EAB) *Agrilus planipennis*, which is classified as a priority quarantine pest threatening Hungary (EU Implementing Regulation 2019/1702). *Agrilus planipennis* larvae create S-shaped galleries in the phloem of the wood, causing lethal damage. Because early symptoms are often masked in stressed trees, targeted surveys of ash stands are essential.

MATERIALS AND METHODS

During surveys, symptom-based inspections were carried out on sentinel trees, with particular attention paid to bark symptoms, larval galleries, and exit holes. In addition to sentinel trees, pheromone traps were used to support monitoring activities, applying attractants selected on the basis of methods proven and reported effective in the scientific literature.



Figure 4: Sentinel tree and pheromone trap placed on ash tree to survey *Agrilus planipennis*

RISK FACTORS FROM THE DIRECTION OF UKRAINE

Agrilus planipennis is officially absent from the territory of the European Union. However, it has already been recorded at several locations in neighbouring Ukraine. Changes in trade patterns, particularly increased rail and road transport associated with the Russian-Ukrainian war, have elevated the risk of introduction. Therefore, enhanced phytosanitary inspections are justified for imports of wood and wood packaging material originating from Ukraine.



Figure 1: Risk-based map representation of traps and sentinel trees placed at the Záhony-Csap road border crossing point and the Eperjeske railway station
(The pest is already present in Luhansk and Kharkiv in Ukraine; the westernmost infection point is Kiev, which is approximately 800 km from the Hungarian border crossing at Záhony.)



Figure 2-3: Inspection of shipments containing ash wood (Záhony, 2025)
(The Záhony BCP plays a crucial role in the entry of wood materials and goods of Ukrainian origin into Hungary, thereby justifying enhanced plant health inspections.)

CONCLUSIONS AND RECOMMENDATIONS

Surveys conducted up to 2025 did not confirm the presence of the priority quarantine pest *Agrilus planipennis* in Hungary. Nevertheless, the results underline the importance of prevention and continuous preparedness. Changes in trade flows and the import of wood materials from third countries continue to require increased phytosanitary vigilance. **Early detection, targeted surveys, and public involvement are key elements in protecting native ash stands.** In cooperation with forestry professionals, further control and trapping options will be investigated in the future, including the use of green and purple traps for native *Agrilus* species.

ROLE OF PUBLIC NOTIFICATION

Due to the threat of the Emerald ash borer, a 2025 public report was closely investigated, but the specimens were confirmed by field identification – that the adults concerned were specimens of the native *Lytta vesicatoria*. This case highlights the importance of public involvement in early detection. To assist with identification, professional materials and posters have been produced. In addition, a *Contingency Plan* outlining the measures required for effective response is available on the website of the Hungarian National Food Chain Safety Office (NFCSO).

Acknowledgements

The authors wish to thank the phytosanitary inspectors working at the border for their efficient cooperation with local customs authorities and their survey activities, the staff of NFCSO, and György Csóka (Forest Research Institute, Hungary) for his continuous professional support and his work dedicated to the protection of native plant species.

