Da auch zukünftig die Teilentblätterung der Traubenzone eine bedeutende Strategie zur Gesunderhaltung der Trauben darstellt, sollen weitere Untersuchungen zur Auswirkung und Vermeidung von Sonnenbrand an Weinbeeren durchgeführt werden.

156 - Untersuchungen von Pilzen als potentielle Ursache des Sanddornsterbens in Norddeutschland

Investigations of fungi as potential cause of sea buckthorn dieback in Northern Germany

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Sea buckthorn, *Hippophae rhamnoides*, is a diecious, hardwooded shrub, which is grown on an area of 723 ha in North-East Germany (Statistisches Bundesamt, 2021). The berries are characterized by high contents of vitamin c and antioxidants. Therefore, applications are pharmaceuticals, cosmetics and food products like juices or marmalades. Furthermore, wild plants grown along the coastline of the Baltic Sea are of relevance for erosion protection and also form an important habitat and food source for various insects and animals. Since 2015, reports on the occurrence of sea buckthorn dieback, both in wild plants and plantations, have been accumulating, leading to serious ecological and economic consequences. Up to now, the cause of the plant death remains unexplained.

A joint project, HippRham, started in November 2020. It was established to investigate the cause of sea buckthorn dieback and to develop practical control strategies. The project partners are Landesforschungsanstalt für Landwirtschaft und Fischerei Mecklenburg-Vorpommern (LFA), Landesamt für Landwirtschaft, Lebensmittelsicherheit und Fischerei Mecklenburg-Vorpommern (LALLF), and JKI, Institute for Plant Protection in Fruit Crops and Viticulture. JKI focus will be on the fungal community potentially related to the dieback phenomena. In addition, phytoplasms and viruses will also be studied. For the fungal part, both a culture-dependent isolation approach and a culture-independent sequencing approach will be used. In a later stage, artificial inoculation experiments are planned, based on putative pathogens. So far, a total of 185 fungi were isolated from root and shoot material of different varieties and origin. Isolates were identified by ITS-PCR and Sanger-Sequencing and among others comprise *Clonostachys* sp., *Fusarium* sp., *Ilyonectria* sp., *Microdochium* sp., *Mucor* sp., *Penicillium* sp., and *Talaromyces* sp. (all from roots), and *Exophiala* sp., *Hymenopleella hippophaeicola*, *Neocucurbitaria* sp., *Penicillium* sp., *Phialemonium* sp., *Phoma* sp., and *Phomopsis* sp. (from shoots). For future studies, a method for DNA extraction from sea buckthorn plants was established.

Literatur

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Förderung durch das Bundesministerium für Ernährung und Landwirtschaft Förderkennzeichen 2220NR130B.

157 - Untersuchungen zum Mycobiom der Rhizosphäre der Gemeinen Esche (*Fraxinus excelsior*) mittels NGS-Sequencing

Investigations on the miycobiom of the rhizosphere of European Ash (Fraxinus excelsior) by NGS-Sequencing

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