

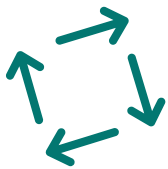
NON-CHEMICAL CONTROL OF THE SEA BUCKTHORN FLY

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Sea buckthorn fly

In the Federal State of Brandenburg, sea buckthorn is currently cultivated on approximately 370 ha, thus being the third most important fruit crop following apple and sweet cherry. 90 % of the sea buckthorn crops are cultivated according to the principles of organic farming. These areas are severely threatened by the massive occurrence of the sea buckthorn fruit fly *Rhagoletis batava*. Both for ecological and integrated sea buckthorn cultivation, there is a lack of adequate strategies to reliably control the sea buckthorn fruit fly. Without a practice-oriented and timely pest control strategy, the future of sea buckthorn cultivation in north-eastern Germany is at great risk.



It is the aim of the ELER-funded EIP-agri project MOPLASA to develop a modular plant protection strategy for controlling the sea buckthorn fly. For this purpose, various non-chemical individual measures (modules) are combined to form a coherent modular strategy.

This principle enables sea buckthorn growers to apply a farm-specific combination of control measures against the fly.

Different modules like traps (different types and lures), mechanical soil cultivation, barriers, macro- and microorganisms like insect-pathogenic fungi, bacteria and nematodes, choice of sea buckthorn varieties, and mobile poultry farming will be tested and assessed both separately and in effective combinations. Biological parameters of the fruit fly will be determined, too. Thus, additional data will be provided which are important for the development of the control strategy.

Together with the four sea buckthorn growers, all individual modules are going to be tested comprehensively in laboratory, plot and field trials and integrated into a modular plant protection strategy. The promising modules are then examined for their compatibility and effectiveness. Parameters for the selection of suitable module combinations are the infestation pressure, the cultivation method, the range of varieties, and the required soil as well as climatic and weather conditions.

Apart from ZALF, the project group includes the four farms Gut Schmerwitz, Biohof Glindow, Havelfrucht and Forst Schneebecke as well as agrathaer GmbH, the Humboldt-Universität zu Berlin, the Pflanzenschutzdienst Brandenburg, the

Landesforschungsanstalt Mecklenburg-Vorpommern, the e-nema GmbH, the IGG GmbH, the Sanddornverein and the Julius Kühn-Institute, Institute for Biological Control. So, the pending tasks will be addressed collectively and with the required expertise.

Project results will be made available to all sea buckthorn growers as recommendations for action in a practical handbook and in short videos.

Project: Development of a Modular Plant Protection Strategy Based on Different Sustainable, Non-chemical Methods to Control the Sea Buckthorn Fly (MOPLASA) **Term:** 2018–2022 **Sponsor:** EIP-agri Brandenburg, ELER **Lead at ZALF:** S. Lerche (sandra.lerche@zalf.de) **Partner:** HU Berlin, agrathaer GmbH, LFA Mecklenburg-Vorpommern, LELF Brandenburg, Werderfrucht GmbH, Biohof Glindow GbR, Gut Schmerwitz GmbH & Co. KG, Forst Schneebecke, Internationale Geotextil GmbH, e-nema GmbH, Gesellschaft zur Förderung von Sanddorn und Wildobst e. V. <https://bit.ly/2UXM4Y9>