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PP-478 [Beekeeping Economy]

TO THE FRONT LINE OF FOOD SECURITY: HONEYBEE POLLINATION AS A PART OF SECURITY OF SUPPLY

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Background

Pollination is a critical ecosystem service for agricultural productivity, and it directly impacts food security and security of supply.

Declining pollinator populations with increasing agricultural demands create a potential shortfall in the stability of food supply. In addition, all the bumblebees used for crop pollination in Finland are imported, while honeybee pollination is generally underutilized.

MEHIVARMA-project emphasizes the importance of beekeeping in nationwide food security. it aims to develop honeybee pollination practices and networks in Finland to increase the role of pollination in food security, to better connect the supply and demand of pollination services and to be better prepared for future crisis situations.

Methods

We will create 1) a national model of operation for beekeepers and farmers consisting of guidelines for crisis situations and strategies for developing pollination services, and 2) a pollination service network where farmers (demand) and beekeepers (supply) can more easily connect.

We achieve these objectives with different experiments on pollination services and beekeeping practices as well as organizing workshops and webinars for farmers and beekeepers to develop future pollination services together.

Expected results

Increased demand for food security and managed pollination services creates potential expansion opportunities for beekeepers. They will be able to offer better tailored services and develop their field. By working closely together with farmers, beekeepers will have the latest knowledge of pollination demands and therefore the ability to adapt in changing times, placing them at the front line of food security.

More information

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To the front line: honeybee pollination as part of security of supply

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BACKGROUND/PURPOSE: Pollination is a critical ecosystem service for agricultural productivity, directly impacting food security and security of supply. A new project in Finland aims to develop honeybee pollination practices and networks to increase the role of pollination in food security and to be better prepared for future crisis situations.

PROBLEM DESCRIPTION: Declining pollinator populations, coupled with increasing agricultural demands, create a potential shortfall in pollination services and food supply stability. At the same time, all the bumblebees used for crop pollination in Finland are imported, while honeybee pollination is generally under-utilized. This project addresses the following questions: How can the supply and demand of pollination services be better connected? How can beekeeping contribute to security of supply? How can pollination practices be developed to better adapt to different crisis situations?

METHODOLOGY: The project has two main objectives. The first one is to create a national model of operation for beekeepers and farmers consisting of guidelines for crisis situations and strategies for developing pollination services. The second objective is to create a pollination services network where farmers and beekeepers can more easily connect. We will achieve these objectives with different experiments on pollination services and beekeeping practices as well as organizing workshops and webinars for farmers and beekeepers to develop future pollination services together.

RESULTS AND CONCLUSION: A previous project revealed that breeding domestic bumblebees is possible. Furthermore, honeybee pollination in greenhouses, a novel pollination method in Finland, yielded higher quality crops than bumblebee pollination. This project will take these findings further and towards self-sufficiency in pollination and food production, aiming at better resilience in crisis situations.

PRACTICAL IMPLICATIONS FOR BEEKEEPERS: This project emphasizes the importance of beekeeping in nationwide food security. Increased demand for food security and managed pollination services creates potential expansion opportunities for beekeepers. By working closely together with farmers, beekeepers will have the latest knowledge of pollination demands and therefore the ability to adapt in changing times, placing them at the front line of food security.