

COMPOSITION OF MELLIFEROUS PLANT MIXTURES FOR DIFFERENT ECOLOGICAL CONDITIONS IN HUNGARY

Szalai, Z., Radics, L. Kadlicskó, B. & Csambalik, L.

INNOVATION

Research and field trials were conducted for the selection of local plant species rich in nectar and pollen and flowering consecutively. In addition, the species were assessed for their ability to suppress weeds and provide soil cover.

The species assessed included annual and perennial species, aromatic herbs and ornamentals. Six plant mixtures were developed and tested in two ecologically different locations.



A mixed meadow



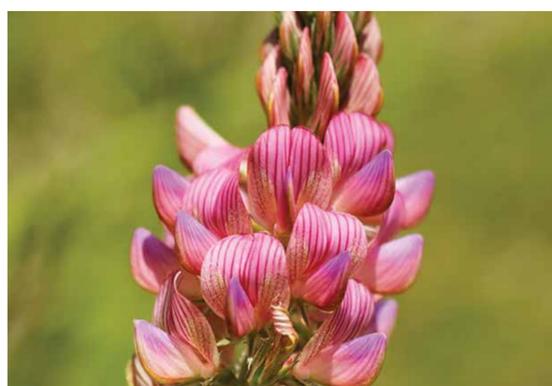
The Innovator: Dr. Zita Szalai is an Associate Professor at the Department of Ecological and Sustainable Production Systems in the Faculty of Horticultural Sciences at the Corvinus University of Budapest, Hungary.

Contact: Dr. Zita Szalai, Department of Ecological and Sustainable Production Systems, Budapest, 1118, Villányi út 29-43, Building 'C', Hungary
E-mail: magdolnazita.szalai@uni-corvinus.hu
Web: <http://orgfarm.uni-corvinus.hu/>

DESCRIPTION

The field trials were held in two ecologically different locations. Both locations were in fallow land with low soil humus content. The second experimental field had heavy clay soil, with low pH 5-6 and low humus content.

The seeds of the different species were mixed and sowed together. The plots were not irrigated, or fertilized. The plants were cut back once a year.



Sainfoin flowers

The flowering stages of each species, the soil cover and the weed suppression effects of the species in the mixtures were recorded. The appropriate time of sowing of the mixtures and the optimal composition of species in the mixture were tested.



A honey bee on flowering buckwheat

RELEVANCE

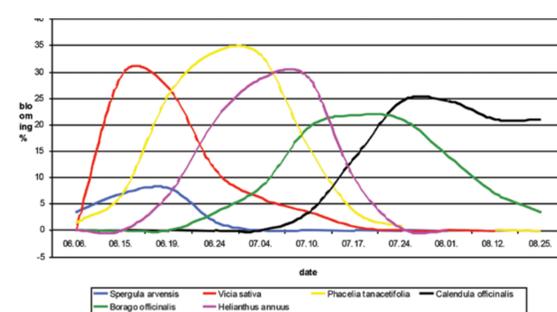
Bees are facing various threats from human interventions in the environment. This project explored the utilization of hardy local melliferous species to compose a mixture of plants for honey bees, wild bees and other insects. The mixtures were tested under natural conditions without external inputs. The optimized mixtures can be used for creating bee pastures or havens of nectar and pollen in or along agricultural land, supporting local biodiversity of plants and animals.



Phacelia flowers with hoverfly and bumblebee



Bee on borage flower



Flowering periods of a melliferous mixture



The **Organic Farming Innovation Award (OFIA)** is the prize of the Organic Movement to highlight innovations of scientists, extension agents and practitioners in the sector of organic agriculture. Once every three years, at the IFOAM Organic World Congress (OWC), the Rural Development Administration (RDA) of the Republic of Korea, IFOAM - Organics International and the Technology Innovation Platform of IFOAM - Organics International (TIPI) honour great organic innovations. By highlighting the innovations, OFIA intends to boost their uptake and motivate new innovations.

It is an initiative of the government of South Korea in remembrance of the Organic World Congress (OWC) 2011 held in its Gyeonggi Province. The OFIA Committee selects a Grand Prize and a Science Prize winner based on the criteria of innovativeness, applicability, relevance and impact potential. For more information on OFIA, visit www.ifoam.bio/ofia.