

OP-283 [Pollination and Bee Flora] Flowers for bees

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Forage sources for honey bees are a crucial consideration for beekeepers, influencing brood development, bee health, honey production, and even the flavor of the honey harvested. Despite their importance, reliable and comprehensive information about bee forage plants remains limited. To address this gap, I have gathered data on plant attractiveness for honey bees and compiled it into a comprehensive catalogue featuring over 881 species of herbs, shrubs, and trees.

The goal of this work is to enhance the understanding of flowers that benefit bees by providing detailed information on their value as sources of nectar and pollen. This compilation, aimed for Northern Europe, can serve as a useful tool for beekeepers in selecting optimal locations for their apiaries.

The plants are categorized and graded based on their nectar and pollen production, indicating their attractiveness to honey bees. The gradation extends from 0 to 4. Additionally, the catalogue includes data on the suitability of certain species for long-tongued and short-tongued bumble bees, as well as solitary bees. Information on pollen color, protein content, nectar secretion and sugar concentration, and potential honey and pollen yield per hectare is also presented in tables. Moreover, some species that tend to be alien invasive for Scandinavian conditions are marked.

The sources for this compilation primarily consist of European articles and books, with additional insights drawn from my own observations. The work is published in Swedish and is available for free download as a PDF on the website of the Swedish Board of Agriculture.

<https://webbutiken/jordbruksverket.se/sv/artiklar/>

FLOWERS FOR BEES

Apimondia 2025, Björn Gustavsson

Compilation of plants - sources of nectar and pollen for bees



Literature Used

- Resources from multiple countries were used to achieve a comprehensive catalogue.



Who benefits from this compilation?

- Beekeepers
- Farmers
- Municipalities (department of parks and recreation)
- Housing cooperatives
- Home- and hobby gardeners



What purpose can it serve?

- Choosing location for apiaries to enhance the honey crop
- Choosing seed mixes to promote wild bees in agricultural areas
- Choosing plants for parks and recreation areas which benefit wild bees
- Suitable plants for homegarden that even serve the wild bees





What parameters can be obtained?

- Blooming period
- Nectar and pollen sources (rated 0-4) for honey bees
- Nectar and pollen sources for some bumble bees and solitary bees
- Invasive species

Let's have a short glance of the report

Tabell 1, sida 26/29

Scientific name

Swedish name

Value as a forage plant

Art		Blomningstid	Värde som honungsbiväxt		Värde för humlor		Värde för solitärbin	Invasiva arter
Vetenskapliga namn	Svenska namn		nektar	pollen	korttungade	långtungade	alla typer	
<i>Solidago gigantea</i>	höstgullris	ss-h	4	2	**	**	**	x
<i>Solidago virgaurea</i>	gullris	ss-h	3	2	**	**	**	
<i>Sonchus</i> spp.	molkar	ss	1	1	*	*	**	
<i>Sorbaria sorbifolia</i>	rönnspirea	fs-hs	2	2	i.u.	i.u.	i.u.	x
<i>Sorbaria tomentosa</i>	indisk rönnspirea	hs	1	1	i.u.	i.u.	i.u.	
<i>Sorbus aria</i>	vitoxel	fs	2	2	i.u.	i.u.	i.u.	x
<i>Sorbus aucuparia</i>	rönn	fs	2	2	*	*	*	

Additional parameters (table 2)

- Pollen colour
- Potential honey crop from 1 hectare of land
- Potential yield of pollen from 1 hectare of land
- Nectar flow (during lifetime or during 24 hours from one flower)
- Sugar content of nectar
- Time for optimal secretion



Additional facts in table 2

Tabell 2, sida 2/18

Art		Pollen colour	Potential honey crop		Nectar flow		Sugar content	
Vetenskapliga namn	Svenska namn	Pollenets färg	Potentiell honungs-skörd kg/hektar	Potentiell pollen-skörd kg/hektar	totalt under blommans livstid (mg socker)	dygns-produktion per blomma (mg socker/dygn)	Nektarns socker-värde %	Optimal tidpunkt/ optimal temperatur
<i>Althea officinalis</i>	läkemalva	mörkviolett	50-150	i.u.	3,0-6,0	i.u.	30-50	i.u.
<i>Amorpha fruticosa</i>	segelbuske	orange	50-80	i.u.	i.u.	i.u.	i.u.	i.u.
<i>Anchusa officinalis</i>	oxtung	gulbrun	135-400	30	0,3-0,8	i.u.	40-60	i.u.
<i>Anemone hepatica</i>	höstanemon	ljusgul	0	10-280	i.u.	i.u.	i.u.	i.u.
<i>Anemone nemorosa</i>	vitsippa	grönt krämvit	0	4-21	i.u.	i.u.	i.u.	10:00-16:00

Protein content

- Table 3 presents the protein content of the pollen



Pollenets proteininnehåll

Tabell 3. Tabellen beskriver 79 olika örter pollenvärde uttryckt i proteinhalt i %.

Latin	Svenska	proteinhalt i pollen %
<i>Acer spp.</i>	lönнар	21
<i>Actinidia spp.</i>	aktinidior	13-18
<i>Aesculus hippocastanum</i>	hästkastanj	29
<i>Allium spp.</i>	lökar	24
<i>Asphodelus fistulosus</i>	pipafodill	14
<i>Brassica napus</i>	höstraps	24-27
<i>Brassica rapa</i>	rybs, rova, åkerkål	40
<i>Carduus nutans</i>	nicktistel	15
<i>Carthamus spp.</i>	safflorsläktet	18

Protein content

Blommor för bin

– en sammanställning av växters
attraktionsvärde för bin



The publication can be downloaded for free

- Visit the link:
<https://webbutiken.jordbruksverket.se>

Thank you for listening!

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