



CARING FOR BEES, PROTECTING THE EARTH & BIODIVERSITY

INITIATE: Planting Nectar & Pollen Plants

Apicultural Science Association of China (ASAC)

prof.Chen Lihong

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CONTENTS

- 01 Value of HoneyBees
- 02 Nectar & Pollen Plants
- 03 Cooperation

01

Value of Honey Bees in Biodiversity



- There are over 25,000 species of bees pollinating for nature plants and crops worldwide



honeybee



bumblebee



Osmia bee



leafcutter bee



Stingless bee

.....

- THE MOST IMPORTANT POLLINATORS ARE **THE HONEY BEES** AND **BUMBLEBEES**



Honeybee



The most important pollinating insects

- 90% wildflower Plants depend on bees pollination
- 75% food plants are pollinated by bees (fruits, vegetables, nuts, feed crops,.....)
- 85% pollinator is honeybee
- Value of pollination is 150 times more than Bee-products (honey, RJ, Prop. Pol. BW....)
- The value reaches to \$20 billion/per year, in the USA.

01

Value of Honey Bees in Biodiversity



The most important pollinator and producer

- Not only the most important pollinator
- Nature Bee-products producer (Only)
- Crucially Important for human health.
- Anti-epidemic



Honeybee





濒危

16.5%

脊椎动物授粉者
有全球范围内
灭绝的风险。

40%

无脊椎动物授粉者
面临灭绝
——尤其是蜂和蝴蝶。

作物依赖蜜蜂授粉

90%

野花
植物在不同程度上
依赖动物授粉。

75%

全球粮食
依赖或部分依赖
授粉的作物。

对昆虫授粉依赖度

100%



杏仁

90-100%



洋葱

90-100%



南瓜

80-100%



苹果

80-100%



芒果

70-100%



西瓜

50-100%



油菜

50-100%



向日葵

来源: FAO, 2006. 授粉服务的经济估值

Many bees are under threat and decline

- **Habitat** destruction: Houses, factories, highways are replacing the open fields eliminating the nectar & pollen plants
- Frequent use of **pesticides** kills the wild honey bees & pollinators
- Clean cultivation (herbicides) kills the wild flowers
- Large scale monoculture
- climate change
-





Honeybee



NO BEE, NO LIFE

Protect Biodiversity

What Can we do to protect Bees & Pollinator ?

- Return to Ecological Nature
- Initiate to plant nectar & Pollen plants (Arbor Day)
- Advocate urban beekeeping (in Embassy)

中国养蜂学会文件

蜂字字 (2022) 5 号

倡议书

——倡议种植蜜粉源植物 保护授粉昆虫 维护生态平衡

致：全体会员、全国蜂业、全国植树节工作者：

蜜蜂是与人类关系最为密切的经济昆虫，与生物多样性、生态平衡、农业增产等息息相关。世界上 80% 的食物依赖昆虫授粉，其中 85% 靠蜜蜂授粉。蜜蜂是世界上最重要的传粉者。

值此一年一度的植树节来临之际，中国养蜂学会再次倡议：“种植蜜粉源植物，保护授粉昆虫栖息地，维护生态平衡”。我们希望通过这一崇高活动，让更多的人加入到种植蜜粉源植物行列，保护蜜蜂和其它授粉者，从而确保粮食稳定和农业可持续发展，维护生物多样性和生态平衡。

全国各地可根据地域环境特点种植蜜粉源植物，为大地增添一抹绿色，为授粉昆虫提供栖息地，为蜜蜂增加一点食粮，为人类增强一些健康，为地球增添一丝生机与活力。建议种植的主要蜜粉源植物：粮食作物中的荞麦、水稻、玉米、甘薯等；油料作物中的油菜、向日葵

葵、红花、芝麻、芝麻菜等；纤维作物中的棉花等；牧草和绿肥中的紫花苜蓿、草木樨、紫云英、白车轴草、苕子等；果树中的梨、桃、荔枝、龙眼、枇杷、柑桔、柚子、橙子、柠檬等；林木中的刺槐、椴树、蓝果树、桉树、刺楸、野桐子、盐肤木、构树等；蔬菜中的油菜、萝卜、胡萝卜、大蒜、韭菜、大葱、洋葱、韭菜、芹菜、菠菜、白菜、甘蓝、花椰菜、西兰花、菜花等；中药材中的枸杞、地黄、黄芪、党参、黄芩、当归、白芍、地黄等。

没有蜜蜂，就没有授粉，没有植物，没有动物，也没有人类！



主题词：倡议种植 蜜粉源 植物 授粉 昆虫 栖息地
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02

Nectar
Pollen
Plants

02 Nectar & Pollen Plants — Beijing



- In the suburbs, there are a large area of crops, vegetables and fruit trees.
- In the mountainous areas, there are luxuriant trees, shrubs and herbs.
- Among them, there are not only the main nectar & pollen sources for commercial honey production, but also the auxiliary honey & pollen sources for bee colony propagation.

China has a vast territory, diverse geological conditions and rich nectar & pollen resources.

02 Nectar & Pollen Plants — Beijing



Main nectar & pollen plants →

(Commercial Honey, 10+)



1 Locust

2 Chaste

3 Jujube

4 Linden

5 Sesame

6 Sunflower

7 buckwheat

8 chestnut

9 Rape

02 Nectar & Pollen Plants — Beijing



Locust

- ◆ Blooming in early May to Jun in different areas, flowering period about half a month
- ◆ Beijing Locust covers more than 350,000 hectares, accounting for 50 percent of the city's total mountainous area.



Chaste

- ◆ Abundant in mountain areas
- ◆ Flower blooms in early June to July, after Locus, in different areas.
- ◆ Blooming last about a month.

02 Nectar & Pollen Plants — Beijing



Jujube(tree)

- ◆ It Blooms in early June and last about a month



Linden

- ◆ Big leaf Linden blooms in mid-June for 12-13 days,
- ◆ Small leaf Linden blooms in late June for 12-13 days

02 Nectar & Pollen Plants — Beijing



Rape

- ◆ It blooms in April ~ May and stays in blooming for more than a month



Sesame

- ◆ It blooms in late June -July, and keep flower for more than a month



Sunflower

- ◆ It blooms in August and September and lasts for about a month

02 Nectar & Pollen Plants — Beijing



buckwheat

- ◆ It blooms in August and September for more than 20 days



chestnut

- ◆ Chestnut, belongs to tall deciduous trees, monoecious plant
- ◆ Blooming in May to June, fruit September to October. General seedling cultivation, need about 6 years can bloom and bear fruit.



02 Nectar & Pollen Plants — Beijing



Main pollen plants (25+)

1. Beans
2. Amorpha Fruticosa (Locust)
3. Common Seabania
4. Variegated Pterolobium
5. Radish
6. Roquette
7. Cucumber
8. Cushaw
9. Mongolian dandellon
10. Chrysanthemum indicum

11. Elm
12. Willow
13. Maple
14. Apple
15. Apricot
16. Peach
17. Pear
18. Hawthorn
19. plum
20. Chestnut

21. Corn
22. Rape
23. Asiatic toddalia
24. Sumac
25. Tea

02 Nectar & Pollen Plants — Beijing



Auxiliary nectar & pollen plants (40+)

1. Wild peach
2. elm
3. apricot
4. willow
5. Peach
6. Pear
7. apple
8. Chinese flowering crabapple
9. plum
10. Dahurian Rose Fruit

11. Fuzzy Deutzia
12. Bright yellow flower?
13. Honeylocust Fruit
14. haw (Shanli Hong)
15. alfalfa
16. Chinese toon
17. grapes
18. persimmon tree
19. Black jujube tree
20. *Albizia julibrissin* Durazz. (cashmere flower)

02 Nectar & Pollen Plants — Beijing



Auxiliary nectar source plants (40+)

- 21. *Amorpha fruticosa* Linn.
- 22. sweet chestnut
- 23. *Koelreuteria paniculata*
- 24. *Sophora japonica* Linn.
- 25. The stripes?
- 26. Leguminosae (peas, soybeans, soybeans, etc.)
- 27. Cucurbits (*Cucumis sativus* L., *Cucumis melo*, *Citrullus lanatus*, *Cucurbita moschata* Duchesne, *Benincasa hispida* (Thunb.) Cogn., etc.)
- 28. *Brassica pekinensis* Rupr., *Raphanus sativus* L., etc
- 29. *Gossypium* spp
- 30. *Zea mays* L.

- 31. broomcorn
- 32. abutilon
- 33. *Ricinus communis* L.
- 34. Mountain broom seedling
- 35. Shan Su Zi?
- 36. *Elsholtzia myosurus* Dunn (*Leonurus japonicus* Houttuyn)
- 37. *Nepeta cataria* L.
- 38. Lamiaceae
- 39. *Adenophora stricta* Miq.
- 40. *Dendranthema indicum*

A lot of plants, we can do.



03

COOPERATION



03 COOPERATION



COOPERATION for NATURE for the most important pollinator



Biodiversity

Agricultural production

Ecological balance

Zero hunger

Human Health

Beekeepers get rich

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Conservation and sustainable management of biodiversity and ecosystem

03

COOPERATION



- 1999, in **Canada**, I'd like to buy a grazing lands to produce Maple Pollen :-)
- 2019, in **Canada**, I'd like to import the modern beekeeping car :-)



Slovenia

- 2013, we met in apimondia, good friendship, help each other and cooperation
- 2017~ now, for WBD



03 COOPERATION



Developing
Country



单击此处输入标题



CEE
Country



03 COOPERATION



No bees, no pollination, no nature, no biodiverse and no life !

Begin from myself

Plant tree, arbor, bush, flower

NZ: Manuka?

Start now

Beekeeping in city, embassy

Hand in Hand !

Share bee-products

Let's join, Together 一起向未来! for a shared nature future !



REPUBLIC OF SLOVENIA
EMBASSY BEIJING



THANK YOU

Welcome



WBD 2023

Care for bees, protect the earth, biodiversity, and human health

E-mail: clhb@hotmail.com