THE MOST IMPORTANT NECTAR PLANTS WHICH SUPPLY HIGHEST AMOUNT OF HONEY IN TURKEY

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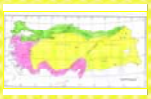
ABSTRACT

Turkey is located in a geographical region highly suitable for beekeeping in terms of the richness of its flora and colonies. In Turkey, about 10 000 species of plants grow naturally and 3 900 of these are endemic. About 450 species, either growing naturally or cultured in Turkey, are classified as honey- giving or nectarous plants.

In this study, nectarous plants (*Arbutus spp, Brassica spp, Calluna spp, Carduus spp, Castanea sativa Miller, Centaurea triumfetti All. , Centaurea solstitialis L. , Cirsium arvense (L.) Scop. , Citrus spp. , Eucalyptus spp. , Gossypium spp. , Helianthus annuus. L., Medicago spp. , Onobrychis spp. , Phacelia tanacetifolia Benthom, Pinus brutia Ten. , Rhododendron ponticum L., Thymus spp. , Tilia spp. , Trifolium spp. , Vicia spp.*) , their pollens, spread areas in Turkey and honey properties will be determined.

Keywords: Turkey, nectarous plant, pollen, honey.

INTRODUCTION



Turkey is located at continental junction point of Europe and Asia. Turkey is encircled by The Mediterranean Sea, The Black Sea, Bosphorus and The Sea of Marmara. The sea of Marmara and Bosphorus join the Mediterranean sea and The Black Sea. Because of the significant geographical location, Turkey have floristic abundance.

In Turkey about 10 000 species of plants grow naturally and 3 000 of these are endemic. About 450 species either growing naturally or cultured in Turkey are classified as honey- giving or nectarous plants.

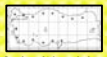
Beekeeping, which has significant influence on country economy, is widely performed in Turkey.

The number of families dealing with beekeeping is 39 000, the number of beehive is around 4.6 million and annual honey production is approximately 83 000 tons.

NECTAROUS PLANTS, THEIR POLLENS and SPREAD AREAS

Arbutus andrachne L.
Family: Ericaceae

Figure1: Arbutus andrachne L.



Spread area of Arbutus andrachne

Arbutus andrachne's blooming period is from March to May.

Pollen production potential is secondary. Honey production potential is dominant. Honeydew production potential is unavailable. Its honey is greeny yellow colored. Its taste is bitterish. Crystallization is slow and crystals are large. Arbutus andrachne's habitats are Maquis and Pinus brutia forest areas.

Brassica oleracea L.
Family: Brassicaceae

Figure 2: Brassica oleracea

Spread area of Brassica oleracea

It's blooming period is from March to April.

Pollen production potential is dominant. Honey production potential is secondary. Honeydew production potential is unavailable. Honey is yellow colored and fluid. Crystallization is quick. It is cultured in a lot of region where climatic conditions are suitable.
K*: Cultured plant

Calluna vulgaris (L.) Hull.
Family: Ericaceae

Figure 3: Calluna vulgaris

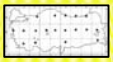
Spread area of Calluna vulgaris

Calluna vulgaris's blooming period is from August to October.

Pollen production potential is minor. Honey production potential is little. Honeydew production potential is unavailable. Heater honey is yellow colored and taste is bitterish. Its habitats are heaths and rocky places.

Carduus nutans L.
Family: Asteraceae

Figure 4: Carduus nutans



Spread area of Carduus nutans

Carduus nutans's blooming period is from June to August.

Pollen production potential is secondary. Honey production potential is dominant. Honeydew production potential is unavailable. Honey is straw colored, Its taste and odor is perfect. Its habitats are rocky places and farms.

Castanea sativa Miller.
Family: Fagaceae

Figure 5: Castanea sativa

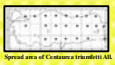
Spread area of Castanea sativa Miller.

Castanea sativa's blooming period is from June to July.

Pollen production potential is dominant. Honey production potential is dominant. In June Lachnus roboris L., Myzocallis castanicola Baker and Parthenolecanium rufulum, which live on, produce honeydew. Chestnut honey red-black or brown colored. Its taste is bitterish and crystallization is slow. Its habitats are Quercus-Fagus and Picea forests.

Centaurea triumfetti All.
Family: Asteraceae

Figure 6: Centaurea triumfetti All.



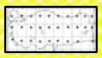
Spread area of Centaurea triumfetti All.

Its blooming period is from May to August..

Pollen production potential is secondary. Honey production potential is dominant. Honeydew production potential is unavailable. Honey is green – yellow colored and taste is bitterish. It crystallizes in a short time.

Centaurea solstitialis L.
Family: Asteraceae

Figure 7: Centaurea solstitialis



Spread area of Centaurea solstitialis L.

Centaurea solstitialis's blooming period is from June to August.

Pollen production potential is secondary. Honey production potential is secondary. Honeydew production potential is unavailable. Its taste is very good and it smells like an orange. The honey is greeny yellow colored. Its habitats are pine forests, hillsides, crop farms.

Cirsium arvense (L.) Scop.
Family: Asteraceae

Figure 8: Cirsium arvense.

Spread area of Cirsium arvense

Cirsium arvense's blooming period is from May to October.

Pollen production potential is minor. Honey production potential is dominant. Honeydew production potential is unavailable. Honey is straw colored and taste is perfect. Its habitats are pastures, roadsides, oak forests and cornfields.

Citrus limonia (L.) Burn. Fil.
Family: Rutaceae

Figure 9: Flower photo of Citrus limonia

Spread area of Citrus limonia

Citrus limonia's blooming period is from February to October.

Pollen production potential is dominant. Honey production potential is dominant. In April the insect which lives on Citrus limonia, produce honeydew. Crystallization is partially quick and crystals are very small. The honey smells like lemon flower. Its taste is good.
K*: Cultured plant

Eucalyptus camaldulensis Dehn.
Family: Myrtaceae

Figure 10: Eucalyptus camaldulensis

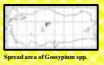
Spread area of Eucalyptus camaldulensis

Eucalyptus camaldulensis's blooming period is from May to July.

Pollen production potential is dominant. Honey production potential is dominant. Honeydew production potential is unavailable. Honey is brown colored. The taste of the honey is unsavory. Crystallization is slow and crystals are large. Habitats of Eucalyptus camaldulensis are salted soil and swamps.

Gossypium spp.
Family: Malvaceae

Figure11: Gossypium spp.



Spread area of Gossypium spp.

Gossypium spp.'s blooming period is from July to August.

Pollen production potential is little. Honey production potential is secondary. The Aphids which lives on Eucalyptus spp., produce honeydew. The honey is straw colored. Its taste and odor is specific. Gossypium spp. grows up at an average of 15°C. Tropic and subtropical climatic zones are suitable for Gossypium spp.
K*: Cultured plant

Helianthus annuus L.
Family: Asteraceae

Figure12: Helianthus annuus

Spread area of Helianthus annuus

Helianthus annuus's blooming period is in July.

Pollen production potential is secondary. Honey production potential is dominant. Honeydew production potential is unavailable. The honey is golden blond colored. Its taste and odor is specific. In a short time it crystallizes. It is cultured in a lot of region where climatic conditions are suitable.
K*: Cultured plant

Medicago sativa L.
Family: Fabaceae

Figure 13: Medicago sativa

Spread area of Medicago sativa

Medicago sativa's blooming period is from April to September.

Pollen production potential is secondary. Honey production potential is dominant. Therioaphis trifolita which lives on Medicago sativa, produces honeydew. The honey is yellowish white colored and crystallization is quick. It smells perfect. Convenient conditions are crucial for field of clover. Soil pH should be over 7 and also should be moist.

Onobrychis viciifolia Scop.
Family: Fabaceae

Figure 14: Onobrychis viciifolia

Spread area of Onobrychis viciifolia

Onobrychis viciifolia's blooming period is from May to June.

Pollen production potential is secondary. Honey production potential is little. Honeydew production potential is unavailable. Honey is straw colored and crystallization is partially quick. Crystals are small. Its taste and odor is perfect. All sorts of climatic conditions are suitable for Onobrychis viciifolia.
K*: Cultured plant

Phacelia tanacetifolia Bentham.
Family: Hydrophyllaceae

Figure 15: Phacelia tanacetifolia

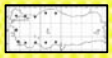
Spread area of Phacelia tanacetifolia

Phacelia tanacetifolia's blooming period is from June to September.

Pollen production potential is dominant. Honey production potential is dominant. Honeydew production potential is unavailable. Its honey is greeny white colored crystallization is quick. Phacelia tanacetifolia flourish in humid and productive soil. Phacelia is one of the major nectarous plants. In our country it is cultured in Adana.
K*: Cultured plant

Pinus brutia Ten.
Family: Pinaceae

Figure 16: Pinus brutia



Spread area of Pinus brutia

Pinus brutia's blooming period is in June.

Pollen production potential is unavailable. Honey production potential is unavailable. Marchalina hellenica which lives on Pinus brutia, produce honeydew. Bees collect these honeydew elements and make them honey. Its honey is yellowish brown colored. The taste of the honey is sourish. Pinus brutia prefer Mediterranean-climate.

Rhododendron ponticum L.
Family: Ericacea

Figure 17: Rhododendron ponticum

Spread area of Rhododendron ponticum

Rhododendron ponticum's blooming period is from March to June.

Pollen production potential is minor. Honey production potential is dominant. Honeydew production potential is unavailable. Its honey is unsavory. It crystallizes slowly. It grows up in Fagus orientalis forests and roadsides.

Thymus spp.
Family: Lamiaceae

Figure 18: Thymus spp

Spread area of Thymus spp.

Thymus spp.'s blooming period is from May to August.

Pollen production potential is minor. Honey production potential is dominant. Honeydew production potential is unavailable. Honey is straw colored. The odor and taste of the honey is perfect and crystallization is quick. Thymus spp. lies on the hillsides, meadow and rocky places

Tilia platyphyllos Scop.
Family: Tiliacea

Figure 19: Tilia platyphyllos

Spread area of Tilia platyphyllos

Tilia platyphyllos's blooming period is in July

Pollen production potential is little. Honey production potential is little. Honeydew production potential is unavailable. Its habitats are farm sides, hillsides.
K*: Cultured plant

Trifolium repens L.
Family: Fabaceae

Figure 20: Trifolium repens L.

Spread area of Trifolium campestre

Trifolium campestre's blooming period is from March to September.

Pollen production potential is dominant. Honey production potential is dominant. Honeydew production potential is unavailable. The honey is transparent. The taste and odor is perfect. Its habitats are meadows and farms.
K*: Cultured plant

Vicia cracca L.
Family: Fabaceae

Figure 21: Vicia cracca

Spread area of Vicia cracca

Vicia cracca's blooming period is from May to August.

Pollen production potential is secondary. Honey production potential is dominant. Honeydew production potential is unavailable. Its honey is transparent. Its taste is perfect and honey of Vicia cracca smells like flower. Its crystallization is very slow. Its habitats are meadows and heaths.
K*: Cultured plant

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