

The Melliferous Value Of Crop Wild Relatives Of Cultivated Plants From The *Fabaceae* Lindl Family. Republic Of Karakalpakstan

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Abstract: The article analyzes the crop wild relatives of cultivated plants from the *Fabaceae* Lindl. Family, the flora of the Republic of Karakalpakstan by their economically valuable groups. Analysis of the synopsis showed that WRCP consists of 10 genera and 15 species, of which 11 are melliferous species.

Keywords: Crop wild relatives of cultivated plants, flora, the melliferous value.

Introduction

About 80% of Uzbekistan's area is occupied by deserts, of which Kyzylkum is the largest with an area of 30 million hectares. A unique gene pool of different ecological groups is concentrated on the territory of Uzbekistan, which is a valuable reserve of forage, raw materials, medicinal, food and other useful plants. [1].

Determination of biological productivity and rational use of wildlife is one of the most important tasks of modern ecology. [4].

Evaluation and preservation of the gene pool of desert wild species of local flora is closely related to the study of morpho-anatomical characters, chemical composition, including economic value.

Crop wild relatives of cultivated plants are a repository of a whole set of valuable traits and can be a source of starting material for breeding. Under the conditions of the Republic, in the process of evolution, a unique gene pool of plants with complex resistance was formed. Crop wild relatives of cultivated plants, possessing a wide range of winter-hardy, frost-resistant, heat-resistant, drought-resistant, salt-tolerant plants, could be successfully used in the breeding of useful plants. Purposeful collection and reliable conservation of biodiversity components, especially in places of origin and maximum diversity of plant genetic resources, is a priority task for any state. For the successful development of modern agricultural production, for the creation of new plant varieties adapted to unfavorable environmental conditions, diseases and pests, it is necessary to preserve not only the widest possible spectrum of the diversity of cultivated plants, primarily cultivated plants and wild species close to them - wild relatives of cultivated plants (WRCP), but also ecosystems in general, which include certain species. [3].

WRCP species of natural flora, evolutionarily genetically close to cultivated plants, included with it and in the same genus; introduced into the culture directly (cultivated) or participated in the formation of cultivated plants through use in crosses (intentionally or spontaneously), as well as potentially suitable for the creation or improvement of varieties of cultivated plants. [2].

Objects and research methods

The objects of study are wild melliferous plants of the *Fabaceae* Lindl family of the natural flora of the Republic of Karakalpakstan. The proposed list of wild relatives of cultivated melliferous plants was developed on the basis of a literature review.

Family *Fabaceae* Lindl — one of the largest families of the world flora of herbaceous and woody plants. Legumes are easily recognizable by their flower shape. A legume flower, usually five-membered, bilaterally symmetrical, with intergrown sepals and a corolla resembling a sailing ship or a flying butterfly: the upper petal is a "flag" or "sail", two side ones are "oars" ("wings"), the two lower ones are soldered into "boat". Stamens 10, free, welded together, or (most often), 9 stamens fused and 1 free. Another sign of legumes is a fruit characteristic only for this family, a bean. Valuable food plants are high in protein. (beans, mung bean, soybeans, peas, peanuts, etc.) vegetable oil, a source of medicinal substances, decorative, technical, etc. Many leguminous plants on the roots have nodules filled with nitrogen-fixing bacteria.

Research results

Analysis has shown that in the *Fabaceae* lindl. WRCP is marked with 10 genera and 15 species. Of these, two species were recorded in the genera *Alhagi* Hill, *Ammodendron* Fisch., *Astragalus* L., *Glicirrhiza* L. and *Melilotus* Mill. In other genera, one species is presented [5, 6] (table.1).

Table 1.

The melliferous value of crop wild relatives of cultivated plants from the *Fabaceae* Lindl. family

Family FABACEAE Lindl.			
№	Genera	Species	M
1	<i>Alhagi</i> Hill	1,1 <i>A.persarum</i> Boiss. et Bushe	+
		2,2 <i>A. pseudoalhagi</i> (Bieb.) Fisch.	+
2	<i>Ammodendron</i> Fisch	1,3 <i>A. conollyi</i> Bunge	+
		2,4 <i>A. longiracemosum</i> Raik	+
3	<i>Astragalus</i> L.	1,5 <i>A. transcaspicus</i> Freyn	–
		2,6 <i>A. unifolialatus</i> Bunge	–
4	<i>Caragana</i> Fabr.	1,7 <i>C. grandiflora</i> (Beib.) DC.	–
5	<i>Glicirrhiza</i> L.	1,8 <i>G.aspera</i> L	+
		2,9 <i>G. glabra</i> L.	+
6	<i>Medicago</i> L.	1,10 <i>M. lupulina</i> L	+
7	<i>Melilotus</i> Mill	1,11 <i>M. albus</i> Medik.	+
		2,12 <i>M. officinalis</i> (L.) Pall	+
8	<i>Onobrychis</i> Hill	1,13 <i>O.micranta</i> Schrenk.	+
9	<i>Trigonella</i> L.	1,14 <i>T. grandiflora</i> Bunge	–
10	<i>Trifolium</i> L.	1,15 <i>T. repens</i> L	+
Total			11

Based on the table, it can be seen that the analysis of the composition of plants from the *Fabaceae* Lindl. Family, found within the Republic of Karakalpakstan, revealed 11 species of melliferous plants. Of these, from the genus *Alhagi* Hill, are *A. persarum* Boiss melliferous species. et Bushe and *A. pseudoalhagi* (Bieb.), and from the genus *Ammodendron* Fisch species *A. conollyi* Bunge and *A. longiracemosum* Raik, two species *G. aspera* L and *G. glabra* L. from the genus *Glicirrhiza* L., species *M. albus* Medik. and *M. officinalis* (L.) Pall from the genus *Melilotus* Mill. The rest of the genera are represented by one type of melliferous plants - this is *M. lupulina* L, a species from the genus *Medicago* L., *O. Micranta* Schrenk. from the genus *Onobrychis* Hill and *T. repens* L from the genus *Trifolium* L..

Other species: *T. grandiflora* Bunge from the genus *Trigonella* L., *C. grandiflora* (Beib.) DC. from the genus *Caragana* Fabr. and species *A. transcaspicus* Freyn, *A. unifolialatus* Bunge from the genus *Astragalus* L. has no melliferous value.

Conclusion

It should be noted that the above figures for the composition of crop wild relatives of cultivated plants from the *Fabaceae* Lindl. flora of Karakalpakstan is not yet final. Further detailed study of the flora of individual regions of the republic, undoubtedly, should lead to a clarification of the number of genera and species of flora of the republic that are of economic value.

Thus, summarizing the above, we can conclude that the wild melliferous flora of the Republic of Karakalpakstan has significant potential and, with rational and competent use, will provide the population not only with high-quality, environmentally friendly honey, but also other valuable beekeeping products.

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