

# Fodder Species from Family *Fabaceae* Lindl. Crop Wild Relatives of Cultivated Plants of the 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 according to their feeding properties. Analysis of the synopsis showed that WRCP consists of 10 genera and 15 species. And it was revealed that all plants of this family are fodder plants.

**Keywords:** Wild relatives of cultivated plants, flora, medicinal plant species.

## Introduction.

Fodder plants - wild and cultivated plants used as feed for agricultural and wild animals. Various life forms can be used as fodder plants - trees, shrubs, dwarf shrubs, grasses, etc. The economic value of fodder is determined by their yield, nutritional value, eaten by animals, as well as their prevalence in hayfields and pastures. [1].

Wild relatives of cultivated plants once played a huge role in human life. Later, some of them began to be cultivated, and many others, until recently, retained the value of "emergency stock used in critical situations. However, many of these plants are still widely used today. Mushrooms, wild berry and fruit nut plants are of the greatest importance as food plants; several wild-growing types of vegetables are widely used, spicy and insular ones are used less - wild-growing onions, capers, etc. [8].

Determination of biological productivity and rational use of wildlife is one of the most important tasks of modern ecology. [2].

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. [9].

## Objects and research methods.

The object of this study is wild relatives of cultivated plants (DSCR) - species of the *Fabaceae* Lindl family. Considering, on the one hand, the insignificance and, on the other hand, the specificity of the species composition of the desert flora of the Republic of Karakalpakstan, knowledge about the use of the beneficial qualities of plants is of particular interest [3; 4].

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.

Our research has shown that in the *Fabaceae* Lindl. WRCP is marked with 10 genera and 15 species. Two of them were recorded in the genera *Alhagi* Hill, *Ammodendron* Fisch., *Astragalus* L., *Glicirrhiza* L. and *Melilotus* Mill. In other genera, one species is presented (Table 1) [5].

**Table 1. Fodder species from family *Fabaceae* Lindl. crop wild relatives of cultivated plants**

№	Species
1	<i>Alhagi persarum</i> Boiss. et Bushe
2	<i>A. pseudoalhagi</i> (Bieb.) Fisch.
3	<i>Ammodendron conollyi</i> Bunge
4	<i>A. longiracemosum</i> Raik.
5	<i>Astragalus transcaspicus</i> Freyn
6	<i>A. unifolialatus</i> Bunge
7	<i>Caragana grandiflora</i> (Beib.) DC.
8	<i>Glicirrhiza aspera</i> L.
9	<i>G. glabra</i> L.
0	1 <i>Medicago lupulina</i> L.
1	1 <i>Melilotus albus</i> Medik.
2	1 <i>Melilotus officinalis</i> (L.) Pall
3	1 <i>Onobrychis micranta</i> Schrenk.
4	1 <i>Trigonella grandiflora</i> Bunge
5	1 <i>Trifolium repens</i> L.

The table shows that the analysis of the composition of plants from the family *Fabaceae* Lindl. of the Republic of Karakalpakstan, revealed 15 species of fodder plants. All species of this family are valuable forage plants. Two species are represented in the genera *Alhagi* L.: *A. persarum* Boiss. et Bushe and *A. pseudoalhagi* (Bieb.) Fisch., *Ammodendron* L.: *A. conollyi* Bunge and *A. longiracemosum* Raik., *Astragalus* L.: *A. transcaspicus* Freyn and *A. unifolialatus* Bunge, *Glicirrhiza* L.: *G. aspera* L. and *G. glabra* L., as well as *Melilotus* L.: *M. albus* Medik. and *M. officinalis* (L.) Pall. In other genera, one species is represented, *Caragana grandiflora* (Beib.) DC., *Trigonella grandiflora* Bunge, *Onobrychis micranta* Schrenk., *Medicago lupulina* L. and *Trifolium repens* L. All the above listed species are valuable, forage, grazing plants and are well eaten by animals. [6; 7].

### Conclusions.

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 all species of the *Fabaceae* Lindl. They are excellent feed for animals.

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