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Important Fodder Crops Growıng in the Watered Haylands of Northern Terrıtorıes of the Lower Caucasus

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Abstract:

In the haylands of northern part of the Lower Caucasus we can meet 77 sorts, 221 species within 11 plant families.Beens species take 51,58%,wheat species take 42,53% and different kinds of grass take 5,88% of total territory.There have been determined the fodder reserves of our republic and the quality of the fodder have been studied. At the result of investigations there have been determined 395 kinds of toxic and harmful sorts of plants included into 169 kinds and 46 plant families

Key words: flora, genus, family, species.

The green cover of northern part of the Lower Caucasus has mainly spread according to the horizontal rules and divided into intrazonal, extrazonal və azonal plant types. By the information taken from the references there have been determined that the following plant groups have spread in this territory: meadows grown in the thin forests; naked-dry mountain skirts covered by thin wormwoods and wheat; dry lands covered by thin wormwoods and astragalus; semideserts covered by wormwoods; semideserds covered by thin wormwoods- efemer; the cultural plants that replaced the plants named above; cserophit bushes; riverside Tugay forests

on both banks of the Kur river; mountain forests and mountain meadows (5).

Meadow making plants usually spread in the river basins and north-easten mountain slopes. There have spread mezophit plants as *Erodium cicutarium, Asperula odorata, Euphorbia virgata, Potentilla argentea, Festuca sulcata, Andropogen ischaemum, Malva lusidum* and others. These plants have great role on domnating on the plants, on creating of the soil, on increasing of the fertility of the soil and on defending the soil from erosion. Wormwood-wheaty areas in the mountain skirts has great role in the plant cover of the region. But at the result of wrong using of the soil, wrongly using of meadows and haylands the areal of most phitosenezes have shortened, have lost their use or they are under destruction. Majotity of them have been destructed and some species have remained as monodominant senozes in small areas. The semidesert plants as Stipetum sp., Botriochloetum ischaemum and others have shortened their areals by the influence of permanent antropogen factors. In the Republic altogether 4/1 part of the semidesert plants have fallen under transformation. Richness of the grass much more depends on the humidity of the soil.

Within these formations *Artemisia lerchiana, A. caucasica, A. scoparoides, A. szovitsiana, Agropyron desertorum, A. pectinatum, Eremopyrum orientale, Petrosimonia brachiata, Bromus japonicus, Koeleria caucasica, Dactylis glomerata, Bothriochloa ischaemum, Lepidium vesicarium, Kochia prostrata, Brachypodium rupestre, Limonium meyeri, Astragalus bungeanus, Anthemis candidissima* spread much more widely. Within all formations we can meet all variants of dominant wormwoods. Wormwoods suck water from the depth of the soil and can acclimatize to the draught. In spring and autumn after the rainfalls wheats and efemers together cover the soil. The plants resistant to cold have spread in the lower parts of the relief where the subterranian waters

are near the surface. Majority of the desert phitosenezes consist of Qarağan.

Parennial herbs as *Limonium scoparium, L. meyeri, Alhagi pseudoalhagi, Bromus japonicus, Tamarix ramosissima, Xanthium strumarium, Plantago altissima, Medicago sativa, Salsola nodulosa, S.dendroides, Glycyrrhiza glabra;* bushes as *Tamarix ramosissima;* semibushes as *Suaeda microphille*, *Artemisia lerchiana, Salasola ericoides, Atriplex aucheri, A.desertorum* and other plants are the main plants of the garağanlı deserts (1, 5, 9). In much saline soils there have spread salt resistant plants as *Halocnemum stobilacetum, Salsola dendroides, Aeluropus littoralis, Kochia prostrata, Atriplex canum, Hordeum leporinum, Anabasis aphylla, Agropyron cristatum, Acroptilon picris.*

Almost there haven't remained naturality features of desert and semidesert plants in the region.

Artemisetum lerchianae-Ephemeretum, Artemiseto-Salsoletum, Kalidietum, Echinochloetum, Alhagietum, Petrosimonietum, Caraganietum formations fell under antropogen influences for ages and have lost their natural features. They remained only in some local areas. Not only present physical-geographical and ecological position but also historical prosess have great role on the plant cover dynamics of northern part of the Lower Caucasus. So it is more expedient to approach by the historical point to the flora of this region. Historical – poleobotanical information is not enough to investigate the whole essense of the prosess. But the existing scientific materials and personal observations gives chance to make conclusion about the dynamics of plant cover of the region. Comparative analysis of present plant cover of the northern part of the Lower Caucasus shows that after the Ice Age cserophit flora had great role on formation of the vegetation of the region. But the existing vegetation have greatly changed by the influence of the changing climate. In the presently investigationed areas we can meet relicts of III period as

Primula qrandis, Gentiana paradoxa, Ranunculus mirabilis, R. autraiana, Delphinium pyramidatum, Ranunculus subtiles, Androsacce albana, A. intermediaand other species of this kind (2, 3, 10).

Vegetation of northern part of the Lower Caucasus has formed in some periods from the far centers (Ice Age migration, III period and the Mediterranian sea) thanks to the migrated species. Besides all these named above, in the last period, influence of the antropogen factors on the dynamics of vegetation of the region is highly observed. Destruction of the forests, erosion of the mountain slopes, unsystematically pasture of the cattle, wrongly watering of the soil, droughts, planting of the agriculturl plants in the places of the natural vegetation and other factors resulted by antropodynamic successions. Becides the natural pastures the vegetation of the watered areas of northern part of the Lower Cacasus is very different according to their types. So, we can meet at least 30-40 or more species within any vegetation groups. Within the botanical composition of the vegetation of irrigaring areas herbs take great place. Herbs also differ from one another by their family, biological features, importance of fodding and other features. Generally the herbs of irrigating areas are divided into some groups according to their fodding importance: good eatable, mid eatable, bad eatable and uneatable herbs. Herbs of the natural fodding areas are divided into 3 main groups according to their biological feafures and fodding importance:

1. Wheat plants. 2. Leguminous plants. 3. Different herbs. Each group combines the herbs that have biologically, ecologically and economically similar features.(4, 7).

Family	Genus	Species	Per cent
Fabaceae	19	114	51,58%
Poaceae	46	94	42,53%
Different herbs	12	13	5,88%

Accorging to the investigations there have been determined 11

families, 77 genus, 221 species in the vegetation of the haylands. The total area consists of 51,58% leguminous plants, 42,53% wheats and 5,88% different herbs. Each type of herbs within these fodding groups have special biological features and general features. It is important to know them by the economic point. Without knowing these features it is difficult to determine the right and fruitful use of these herbs.

Wheat plants have great importance in the natural haylands of Azerbaijan. The best parts of the natural haylands consist of 70-90% wheat plants. Within the desert and semidesert plants we can take for example *Poa bulboza, Erermoryrum orientale, Aegilops squarrosa, Bromus japonicus* and others. The wheat plants are considered valuable natural fodder crops when they are young. It is more useful to pasture the wheat plant meadows afer rain and when they are dewy. While drying and pressing the wheat plants don't lose their more nutrious parts-leaves and it is economically the most valuable feature. One of the main features of the parennial wheat plants is their making new overground sprouts every year. We can meet two periods of shrubbing and sprouting of the wheat plants- spring period and summer-autumn period. Shrubbing of the wheat plants begin as soon as the plants awake from their winter sleep and last till formation of the trunk.

Leguminous plants. One family of the blooming plants that have spread much are the lugimunous plants. We can meet 1200 species of them within 500 genus on the Earth. 550 species in the Caucasus and 400 species in Azerbaijan. On making vegetation the fitocenological role of leguminous plants is less in comparing with wheat plants and other herbs. In the meadows much more of the leguminous plants grow gathered as spots. Such kind of " spots" are the vegetative sprouts grown from one main root. Creeping and soft boled leguminous plants' overground sprouts of *T. canescens and T. pratense* have

features of fast growing and taking much space. Leguminous plants are very sensitive to the lack of humidity in the soil. Growing close to the subterranean waters destroy these plants. Artificial irrigation has great importance for growing of some species of the leguminous plants such **as** *T. canescens, T. pratense, and M. caerulea.* Too long artificial irrigation (even more than a month) has very great influence for growing of *T. canescens and T. pratense. So*, for strengthening of the fodder source and as well as for increasing the productivity of the soil it has great importance to plant *M. caerulea, T. canescens* mixed with wheat plants. Inlargement and acceleration of economic work in this direction would give much profit to the forage reserve (4).

Different plants: Becides wheat plants, leguminous plants and carex the rest of the plants are included into the agrobotanical group that called different plants. Different plants are much more met in the outskirt meadows of the forests and humid areas. We can meet different plants in different climatic zones. In comparing with other agrobotanical groups the type composition of different plants are rich. But they have been studied very little according to fodder quality. Usually such kind of plants are valued as undesired, harmful and lower quality fodder in the meadows and haylands. But some types of them as *C. carvi***,** *Hieracium* and others are grazed very well either dried or in the haylands.

M.A.Steoanov shows that the cows graze *Alchemilla, Achillea***,** *Taraxacum, Centaurea pratense, C. carvi***,** *Hieracium* and others very well untill they bloom.There are some types of plants among the different plants that are known as fodder plants. Lately there have been determined high quality fodder plants that met in natural haylands of our republic and their fodder quality have been studied. At the results of the investigations there have been determined 395 toxic and harmful plant types within 46 families and 169 species spread

in the summer and winter haylands of our republic. Toxic and harmful plants are much more included into the families of *Asteraceae, Lamiaceae, Ranunculaceae, Liliaceae, Papaveraceae, Scrophulariaceae, Brassicaceae* and others (4).

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