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ТҮЙІН

Зерттеулер нәтижесінде Леггеро Форте к.э. 0,25 л/га және Эстет к.э. 0,6 л/га гербицидтерін аралас қоспасын қолдану нәтижесінде жабысқақ белсенді затпен 200 мл/га ПАВ Тренд 90 сұйықтығын қосып, жұмсалатын жұмыс сұйықтық қоспасын 200 л/га мөлшерінде егстік танапты өңдеу кезінде қосжарнақты арамшөптерді жоюдың жақсы көрсеткіштері анықталды. Екінші есеп жүргізу нәтижесі бойынша, кәдімгі қыша арамшөбінің жойылу көрсеткіші – 91,5%, жұмыршақ – 92,6%, жабысқақ қызылбояу – 81,0%, егстік қанат жеміс – 91,5%, далалық шымрмауық – 82,3%, басқа арамшөптер топтамасы -100,0% құрады. Үшінші есепте аталған арамшөптердің ең жоғарғы жойылуы 100,0%; 82,7%; 100,0%; 82,0%; және сәйкесінше 89,4% құрады.

Зерттеу жүргізілген жылдарда астық тұқымдас арамшөптерді жою бойынша ең жақсы көрсеткіштер Ластик Топ м.к.э.-0,5 л/га + Балерина с.э.-0,5 л/га гербицидтерінің аралас қоспасын жабысқақ белсенді затпен қолдану кезінде ПАВ Тренд 90 сұйықтығын қосып, әр гектарға жұмсалатын жұмыс сұйықтық қосынды мөлшерін 200 л/га қолдану кезінде байқалды, нәтижесінде жабайы арпаның жойылуы 87,2%, буылтық итқонақ 89,1%, қара сұлы 88,7%, тауық тары 86,9%, ал басқа арамшөптер санының төмендеуі 90,5% құрап, оң нәтиже алынды.

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BIOLOGICAL AND ECOLOGICAL FEATURES OF COLEOPHORIDAE PESTS FEEDING ON SAXAUL

ANNOTATION

According to the field of research, there are species of saxaul and pasture plants that feed on vegetative and generative organs and cause significant damage to phytomass and seed yield during mass reproduction. Lepidoptera occupy leading positions as pests of forest, agricultural crops, pasture plants and fruit trees, as well as pests of warehouses. The article provides information on the biological and ecological features of one of them, a pest species, Coleophoridae. In the countries of the former USSR, more than 1,000 species of Coleophoridae are known, including pests of agricultural crops, forest and fruit trees and pasture plants. The following species live in saxaula: *Characia haloxyli* (Flkv.), *Coleophora captiosa* (Flkv.), *Ionescumia saxauli* (Flkv.), *Casignotella gallivora* (Flkv.),

Coleophora galligena, *Coleophora calligoni*. As a result of taxonomic verification conducted by scientists around the world recently, it was proved that the genus *Coleophoridae* is divided into 11 genera.

As a result of our research conducted in the desert areas of Southeastern Kazakhstan, 2 species of *Coleophoridae* were found living in the saxaul, which feed mainly on the generative and vegetative organs of the saxaul. Data on the peculiarities of their biological development, food connection and harmfulness have been obtained. Optimal stages of their development have been determined for the phenological development and control of massively occurring species.

During the study, it was noticed that the larvae of this pest, in places where saxaul grows, feed exclusively on saxaul. To test insecticides against 2-3 year old larvae, the following drugs were used from the list as a mass occurring species: Imidor, 20%, v.k. 200 g/l (standard) and 0.06 g/l, Achilles, k.e.50g/l, 0.15 g/l and 0.1 g/l. The amount of liquid used for spraying, it is 350 l/ha. All the insecticides used have shown high biological efficacy.

Key words: *lepidoptera*, *saxaul*, *Coleophoridae*, *harmful lepidoptera*, *larva*, *biological development*.

Introduction. Organic substances in biological circulation, including *lepidoptera*, are enormous in the processing of producers. We all know that 99% of them are first-row consultants. As one of the main biogenic factors, the following can be noted: at all stages of plant development, feeding on their stems, trunks, shoots, leaves, roots, flowers and fruits. They cause damage to the overall crop, threatening their lives with massive over-breeding.

Since the first plowing, the technologies of land cultivation and crop cultivation have a strong influence on the composition and development of local pests. When many species lose food, adverse conditions affect the growth and development of other species. The massively occurring omnivorous polyphages lose their food and become a real pest of the crop sown in the first year. Similar cases have been observed in the fields sown with saxaul.

According to the field of research, there are species of saxaul and pasture plants that feed on vegetative and generative organs and cause significant damage to phytomass and seed yield during mass reproduction. One of them feeding on saxaul is the *Coleophoridae* pests.

A brief description. A species of *Coleophoridae* from the genus *Gelechioidea* (in this taxon, 1,700 species belonging to 1,425 genera were included in the international register) Small butterflies [1,2].

Morphological features. The field of the front wing of the butterfly is 7-40 mm., the wings become thinner, darker, with white stripes along the ridges and oblong hairs. Some species develop inside the stem or inside the seed, inside the gall (node). It feeds on woody and herbaceous plants [3].

The area of distribution. It is more common in temperate zones of the Northern Hemisphere, in deserts and semi-deserts of the Palearctic. It is less common in southern Africa, South America and the Australian continent [4].

In the countries of the former USSR, more than 1000 species are known, including a pest of agricultural crops, forest and fruit trees and pasture plants [5,6]. The following species of *Coleophoridae* live in Saxaula: *Characia haloxyl* (Flkv.), *Coleophora captiosa* (Flkv.), *Ionescumia saxauli* (Flkv.), *Casignotella gallivora* (Flkv.), *Coleophora galligena*, *Coleophora calligoni* [7].

Recently, as a result of a taxonomic survey conducted by scientists of the world, it has been proved that the genus is divided into 11 genera [8]. Modern taxonomic degree: genus - arthropods (*Arthropoda*); only offshoot - trachea (*Trachiata*); Hexapoda; subfamily - arthropods (*Insecta*); spotted branch - wings (*Pterygota*); infratap - fresh (*Neoptera*); group - scaly (*Lepidoptera*); group - nasal (*Glossata*); related to *Gelechioidea* Fracker, 1915; tuistasy - *Coleophoridae* Hubner, 1825 tukymdastars: *Augasma*, *Coleophora*, *Corythangela* (*Batrachedridae*), *Enscepastra* (*Batrachedridae*), *Goniiodoma*, *Iriothyrsa* (*Agonoxeninae*), *Ischnophanes*, *Ischnopsis* (*Agonoxeninae*), *Metriotes*, *Nasamonica*; *Porotica* (*Agonoxeninae*) [9.10].

Of all the species, the most widespread species belongs to the genus *Coleophora*. Most of the pests living on saxaul belong to this genus.

General characteristics of the genus *Coleophora* (Hübner, 1825).

The number of species belonging to the genus *Coleophora* is 95% of all known species of the genus *Coleophoridae*, 1,350 species belonging to this genus are known in the world. As a result of subsequent taxonomic studies, many species were re-included in this genus according to morphological features. It lives on many continents of the world, mainly in Nearctic and Palearctic zoogeographic zones [11,12].

Materials and methods of research. In the course of research, generally accepted traditional methods with original modifications were used to collect field faunal entomological materials. When performing the work, the following collection methods were used: night gathering and light fishing (gasoline generator using a 500 kW fluorescent lamp.), shaking from plants and hand-picking caterpillars and pupae. The sands and desert plains of the Ili depression (Balkhash, Kurtinsky districts, Almaty region) were surveyed. To find out the total population (population density) *Lepidoptera* of individual sites in the spectrum of ecological groups and life forms used appropriate generally accepted and available techniques in entomology.

The monitoring system for gnawing and leaf-gnawing scoops provided for spring, summer and autumn surveys. The spring (control) examination of gnawing scoops was carried out in the fields of row crops (corn, sunflower) and industrial (sugar beet) crops, where the largest number of winter scoops was noted in autumn. The usual method for soil surveys was used: 50x50 cm, sample depth 15-20 cm.

To determine the timing of pupation and summer of butterflies of the overwintered generation, 50 caterpillars were collected during spring excavations. They were placed in the cage, at the bottom of which there was a layer of moistened soil with a thickness of 5 cm. Since the appearance of the first butterflies in the cages, observations have been made on the dynamics of butterfly summer in nature. To do this, light traps and troughs with molasses were used. For the beginning of summer, single individuals were taken into troughs and light traps, for the mass year – the date of the beginning of the hit of more than 20% of the total number of butterflies caught (from the beginning of observations), for the end of summer – the hit of single individuals. Summer surveys by the method of soil excavation were carried out on crops corn and white cabbage. The depth of soil samples is 5 cm. The total number of caterpillars and pupae, the age composition of caterpillars and the average number of individuals per 1 m² were determined. If 0.2 caterpillars per 1 m² are detected, the population of crops is considered weak, from 0.4-0.6 – average, from 0.8 and more – strong.

At the same time, taking into account the number of scoops, the degree of damage to crops was determined. For this purpose, the total number of plants and the number of damaged ones were taken into account in 10 samples. The degree of damage to plants was determined on a three-point scale:

- 0 - undamaged;
- 2 – severely damaged (the root neck is badly corroded, all the leaves are gnawed, but the tillering node is not affected);
- 3 – dead plants.

The autumn survey revealed the distribution of wintering caterpillars by stations. Their number, age composition and physiological state were determined. Using the usual method for soil surveys (10-12 samples of 0.25 m² each) determined the density of caterpillars and the nature of its distribution in fields that came out from under cabbage, corn and potatoes (the depth of the sample in an untilled field was 15 cm, in a plowed field - 20 cm). At the same time, not only the number of caterpillars was established, but also their condition, as well as infection with parasites and disease

Results. As a result of our research conducted in the desert regions of Southeastern Kazakhstan, there are 2 species of *Coleophora* living in the saxaul, which mainly feed on the generative and vegetative organs of the saxaul. Information has been obtained on the peculiarities of their biological development, food connection and harmfulness. The optimal stages of development for combating phenological development and mass species have been determined.

Below we will focus separately on the species that feed on various organs of the saxaul.

Coleophora haloxyli (Flkv.) Synonym: *Characia haloxilli* (Flkv.)

Morphological features. The field of the front wing of butterflies is 10-12 mm., thin, shiny, covered with brownish scales on the outside. The forewing is dark white or light grey with reddish-brown scales meeting from above. The rear wing is dark white, the front and rear wings are sparkling.

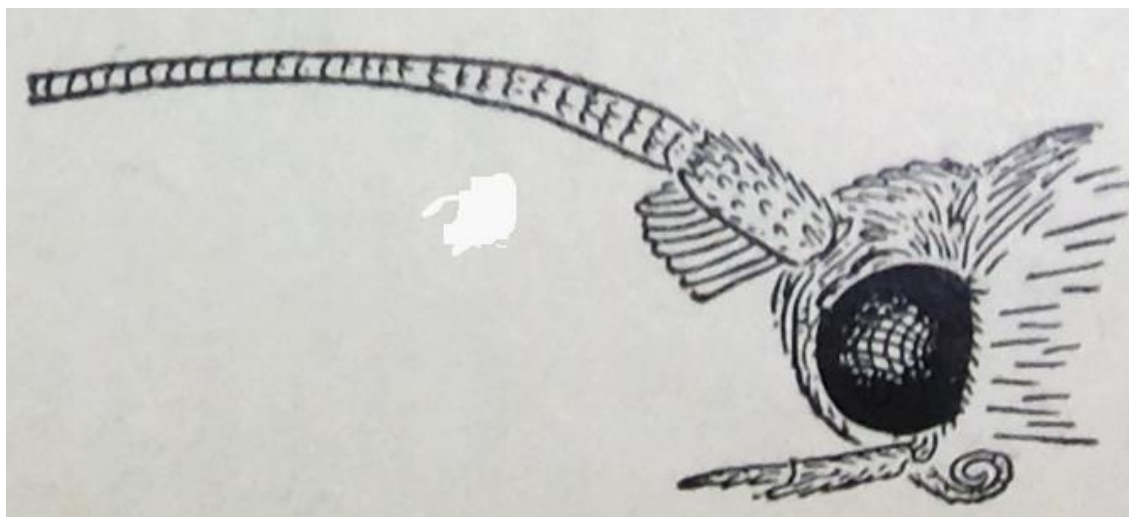


Figure 1 – *Coleophora haloxyli* (Flkv)

It is thin, framed on the outside by light brown scales. The 2nd chain is covered with short scales (Figure 1) [13].

Distribution. Turkmenistan, Uzbekistan [14], in the desert regions of South-eastern Kazakhstan.

Biology. The caterpillar bundles are made from saxaul crops. It lives in the white saxaul. The length of the shoe is 8-9 mm., the color is brown-yellow.

Insects are found in September - October [15]. The butterfly flight will begin in early June. At this time, the white saxaul feeds on fruits. In the summer, he gets to the estualization. Caterpillars hibernate inside the barn. Gives 1 generation per year.

1. Morphological and biological features of capitosa (*Coleophora capitosa* (Flkv.), 1972).

Species: *Coleophora capitosa capitosa*, *Coleophora capitosa maior* Baldizzzone, 1994.

Synonym. *Tritemachia capitosa* (Flkv.)

Distribution. Turan - Gobi species: Mongolia, Turkmenistan, Uzbekistan [14, 817 p.], inhabits the salt marshes of the desert regions of Southeastern Kazakhstan.

Morphological features. The field of the front wing of butterflies is 10-12 mm. The pockets are thin, shiny, and covered with brownish scales on the outside. The forewing is dark white or light grey with clustered red-brown scales on top. The rear wing is dark white. The hair on the front and back wings is shiny. The pockets are narrow, covered with light brown scales on the outside. The 2nd chain is covered with short films [13, p. 50].

The length of the crowns is 5-6.5 mm., tubular like saxaul leaves, with a poorly developed valve, dark in color.

Biology. The butterflies fly out in June. Insects feed on black saxaula sprouts in spring and seeds in autumn. Gives 1 generation per year.

1. Morphological and biological features of the seed saxaul - *Coleophora saxauli* (Flkv.).

Synonym. *Ionescumia saxauli* (Flkv.)

Distribution. Turan - gobinsky species: Mongolia, Turkmenistan, Uzbekistan [14,820 p.]. It lives in the desert areas of Southeastern Kazakhstan, where the white saxaul grows.

Morphological features. The field of the front wing of butterflies is 11-12 mm. The pockets are thin, shiny, and covered with brownish scales on the outside. The forewing is dark white or light grey with clustered red-brown scales on top. The rear wing is dark white. The brushes of the front and rear wings are shiny. The pockets are narrow, the outer side is covered with light brown scales. The 2nd chain is covered with short films (Figure 2) [13, p. 47]. The length of the caterpillars is 6.5-7.5 mm., the saxaulnik leaf is tubular, with a poorly developed rear valve, dark brown in color.

Biology. Insects overwinter on the surface of plant debris or soil. The butterflies fly out in August. Insects feed on saxaul seeds in spring and seeds in autumn. It gives 2 generations per year.

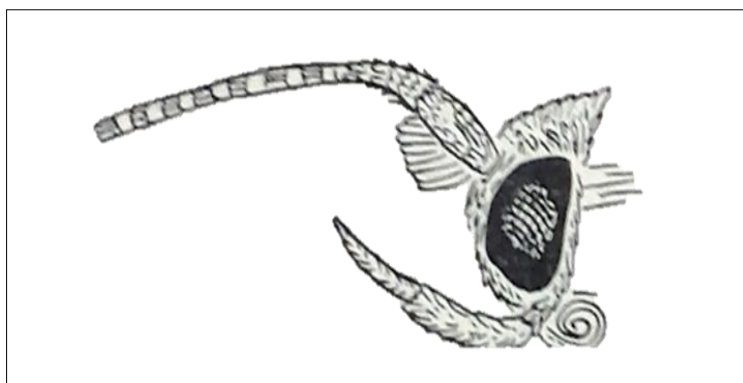


Figure 2 – *Coleophora saxauli* (Flkv.1972)

Research results and discussion. *Casignotella gallivora* (Flkv.)

Distribution. Turan- Gobi species: Mongolia, Turkmenistan, Uzbekistan. It lives in the desert areas of Southeastern Kazakhstan.

Morphological features. The field of the front wing of butterflies is 8-10 mm. The pockets are white, 2 chains of them are covered with brown scales, without hair, 1.5 times shorter than the 3rd chain of the mustache, twice as large as itself. The moustache is simple, with shiny brown rings. The surface of the wings is covered with small scattered scales, which are more common in places. The scales of the queens' wings are frequent and dense. The hindwings are dark grey, the hair is sparkling [16].

The sleeves are knitted with dense silk threads, with curls on top, the rear flap is three-hinged, 6-7 mm long.

Biology. Insects overwinter on the surface of plant debris or soil. In the spring, at the beginning of April, dolls appear on the spot. Butterflies of the first generation fly out in the second half of April, while eggs are laid on young saxaul (tubular leaves). The eggs penetrate into the galls of leaf cones (Pssylidae: *Caillarda azurea* C.) affecting the hump of the saxaul, and feed on the core of the hump. There is 1 caterpillar on 1 galle. The pupa of this generation passes inside the Gauls. Butterflies of this generation fly in July, leaving round holes in the galls.

The caterpillars of the second generation appear from the second half of August in the first days of September. They are in a tubular structure, only the head and chest are visible, and in case of danger they end up inside the hole. After the first cold weather, when the saxaul seeds fall, they go to winter quarters. In the autumn months, the contents of the saxaul seeds are eaten, causing significant damage to the yield of seeds. On one tree, their number reaches 50 [17].

In addition to saxaul, bayalysh and Circassian seeds, and 1st generation caterpillars - inquilines in the galls of leaf cones of many shrubby and shrubby plants, feed from the inside [15, p.869], and only one species inhabiting the Maryev family [18]

Insects feed on saxaul stems in spring and seeds in autumn. Gives 2 generations per year (Table 10) (Figure 3).

As a result of research, for every 1 kg of collected saxaul seeds of this species, there are 15 caterpillars, and the lesion reaches up to 5.



Figure 3 – *Cosignotella* caterpillar , *Casignotella gallivora* (Flkv.)

The species is *Coleophora galligena* (Flkv.)

Distribution. Turan - Gobi species: Mongolia, Turkmenistan, Uzbekistan, [14, 820 p.], Jordan and Pakistan [19]. It lives in the saxaul desert areas of Southeastern Kazakhstan.

Morphological features. The field of the front wings of butterflies is 12-14 mm. The pockets are white, thin, 2 times longer than itself, of which 2 chains are covered with brown scales, without hair, the 3rd chain of mustaches is shorter than 2. The lower part of the basal (base) chain of whiskers is covered with scaly scales. The color of the curls is white, covered with several chains of films, on the middle side of the ring is light brown-yellow. The head, back and wings are light yellow [14, p. 825]. Adult caterpillars of the pest have a length of 4-5 mm, the body is light yellowish, the head is black.

Biology. Caterpillars are found in spring in April and May, in autumn from the end of August to September. Galls live in the narrow thickets of the white saxaul. The galls (nodes) are longitudinal 15 mm. It gives two generations per year. The spring generation of the saxaul feeds on vegetative, and the autumn generation feeds on seeds.

This species is very similar to the above-mentioned species in terms of damage, nutrition of the saxaul and biological features. Young and adult caterpillars overwinter inside thin cocoons, inside plant residues. The seed leaves inside the seeds are cut out and fed [20].

Biological efficacy of insecticides of the larvae of *Coleophoridae* feeding on saxaul.

During the study, it was noticed that the larvae of this pest, in places where saxaul grows, feed exclusively on saxaul. Since May, the larvae feed on fresh shoots of saxaul, and the second-generation larvae eat shoots of summer seed from the tips. The third generation, starting from the 3rd decade of August and until the end of September, feeds on new ripening saxaul seeds in the morning and evening. They are more common mainly in soil and sandy deserts. In the region where the study was conducted, case-bearing larvae are the main pest affecting the vegetative organs of the saxaul, and with mass reproduction they become one of the most dangerous pests.

To test insecticides against 2-3 year old larvae, the following drugs were used from the list "List of pesticides (pesticides) approved for use in the territory of the Republic of Kazakhstan 2013-2022" as a mass occurring species: Imidor, 20%, VK 200 g/l (standard) and 0.06 g/l, Achilles, K.E.50g/l, 0.15 g/l and 0.1 g/l. The amount of liquid used for spraying is 350 l/ha. Before the insecticide test, 100 case-bearing larvae (*Coleophoridae*) were evenly placed on each 10 saxaul (corresponding to 30 m²) selected at the age of 15-20 years. Spraying with liquid with the addition of an insecticide was carried out with an OPR-12 sprayer in 4 repetitions, in the evening. The action and biological effectiveness of insecticides used against the larvae of the scabbard are presented below (Table 1)

Table 1 – Biological effectiveness of insecticides of the larvae of the scabbard (*Coleophoridae*) feeding on saxaul. Almaty region, Balkhash district, 2023.

Types of insecticides	Consumption rate, l/ha	Before processing, the number of larvae, pieces, 1 tree	After processing, the number of larvae, pieces, 1 tree			After treatment, the biological effectiveness of insecticides, %		
			1 day	3 day	7 day	1 day	3 day	7 day
Control			98,0	97,0	95,0	-	-	-
Imidor, 20%, v.k. 200 g/l (standard)	0,07 g/l	100,0	21	16	12	78,0	86,0	87,0
Imidor, 20%, v.k. 200 g/l	0,06 g/l	100,0	23	8	7	78,0	93,0	95,0
Achilles, k.e.50g/l	0,15 g/l	100,0	20	5	3	80,0	95,0	96,0
Achilles, k.e.50 g/l	0,1 g/l	100,0	15	2	2	85,0	98,0	98,0

As can be seen from the table, the biological effectiveness of insecticides used against 2-3 year old larvae of the case was very high. We would like to note that when spraying with insecticides, there were favorable conditions (absence of strong wind, high air temperature and low clouds) It can be said

that almost all the insecticides used have shown high biological efficacy. Imidor, 20%, V.K. of the 1st repetition, used as a reference (standard) 0.07 g/l on the 7th 87%, Imidor, 20%, 0.06 g/l -95%, Achilles, K.E.50g/l, 0.15 l/ha - 96%, Achilles, K.E.50g/l, 98.0%.

Conclusion. In conclusion, as a result of studies conducted in the desert regions of Southeastern Kazakhstan, there are 2 species of coleophoridae living on the saxaul, which mainly feed on the generative and vegetative organs of the saxaul. Information was obtained on the peculiarities of their biological development, nutritional relationship and harmfulness. The optimal stages of their development have been determined for the phenological development and control of mass species.

In conclusion, the main indicators necessary for the biological justification of measures to control saxaul pests are determined. Experimental tests of insecticides were also carried out. In particular, pests of lepidoptera feeding on saxaul have been identified, the optimal stages of development of each species for control measures, as well as measures to combat these pests and their timing.

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ТҮЙІН

Зерттеу аймағы бойынша сексеуіл мен жайылым өсімдіктерінің вегетативті және генеративті мүшелерімен қоректенетін және жаппай көбейген кезде, фитомассасы мен тұқым шығымдылығына едәуір зиян келтіретін түрлері бар. Қабыршаққанаттылар орман, ауылшаруашылығы дақылдары, жайылым өсімдіктері және жеміс- жидек ағаштарының, сондай-ақ қойма зиянкестері ретінде алдыңғы орында тұр. Мақалада солардың бірі, сексеуілмен қоректенетін құндақтылар (*Coleophoridae*) туыстасының зиянкес түрлерінің биологиялық және экологиялық ерекшеліктері туралы мағлұмат берілген. Бұрынғы КСРО елдерінде құндақтылардың 1000-нан аса түрлері белгілі, олардың ішінде ауылшаруашылық дақылдарының, орман және жеміс ағаштарының және жайылым өсімдіктерінің зиянкес түрлері бар. Сексеуілде тіршілік ететін құндақтылардың мынандай түрлері кездеседі: *Characia haloxyli* (Flkv.), *Coleophora captiosa* (Flkv.), *Ionescumia saxauli* (Flkv.), *Casignotella gallivora* (Flkv.), *Coleophora galligena*, *Coleophora calligoni*. Соңғы уақытта әлем ғалымдарының жүргізген таксономиялық тексеру нәтижесінде, құндақтылар туыстасының 11 тұқымдасқа бөлінетіндігі дәлелденді.

Біздің Оңтүстік - Шығыс Қазақстанның шөл аймақтарында жүргізілген зерттеулеріміздің нәтижесінде сексеуілде тіршілік ететін құндақтылардың 2 түрі кездесті, олар негізінен сексеуілдің генеративті және вегетативті мүшелерімен қоректенеді. Олардың биологиялық даму ерекшеліктері, қоректік байланысы және зияндылығы туралы мәліметтер алынды. Фенологиялық дамуы және жаппай кездесетін түрлерімен күресу үшін олардың оңтайлы даму сатылары анықталды.

Зерттеу барысында сексеуіл өсетін жерлерде осы зиянкестердің дернәсілдерінің тек сексеуілмен қоректенетіні байқалды. 2-3 жастағы личинкаларға қарсы инсектицидтерді сынау үшін тізімнен жаппай кездесетін түр ретінде келесі препараттар Имидор, 20%, в.к. 200 г/л (эталон) және 0,06 г/л, Ахиллес, к. е. 50 г/л, 0,15 г/л және 0,1 г/л. Қолданылды және

қолданылатын сұйықтық мөлшері бүрку үшін 350 л/га құрады. Барлық қолданылатын инсектицидтер жоғары биологиялық тиімділікті көрсетті.

РЕЗЮМЕ

Согласно области исследования, существуют виды саксаула и пастбищных растений, которые питаются вегетативными и генеративными органами и при массовом размножении наносят значительный ущерб фитомассе и урожайности семян. Чешуекрылые занимают лидирующие позиции в качестве вредителей лесных, сельскохозяйственных культур, пастбищных растений и фруктовых деревьев, а также склада. В статье представлена информация о биологических и экологических особенностях одного из них, вида-вредителя, родственного чехлоносок (*Coleophoridae*). В странах бывшего СССР известно более 1000 видов чехлоносок, среди которых вредитель сельскохозяйственных культур, лесных и плодовых деревьев и пастбищных растений. В саксауле обитают следующие виды чехлоносок: *Characia haloxyli* (Flkv.), *Coleophora captiosa* (Flkv.), *Ionescumia saxauli* (Flkv.), *Casignotella gallivora* (Flkv.), *Coleophora galligena*, *Coleophora calligoni*. В результате таксономической проверки, проведенной учеными всего мира в последнее время, было доказано, что родство чехлоносок делится на 11 родов.

В результате наших исследований, проведенных в пустынных районах Юго - Восточного Казахстана, было обнаружено 2 вида чехлоносок, обитающих в саксауле, которые питаются в основном генеративными и вегетативными органами саксаула. Получены данные об особенностях их биологического развития, пищевой связи и вредности. Для фенологического развития и борьбы с массово встречающимися видами были определены оптимальные стадии их развития.

Ходе исследования было замечено, что личинки данного вредителя, в местах произрастания саксаула, питаются исключительно саксаулом. Для испытания инсектицидов против 2-3 летних личинок в качестве массового встречающегося вида применялись из списка были выбраны следующие препараты: Имидор, 20%, в.к.200 г/л (эталон) и 0,06 г/л, Ахиллес, к.э.50г/л, 0,15 г/л и 0,1 г/л. Количество жидкости применяемой для опрыскивания составляет 350л/га. Все используемые инсектициды показали высокую биологическую эффективность.

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