
RODENT PESTS OF ALFALFA AND EFFECTIVENESS OF PESTICIDES AGAINST THEM

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Annotation.

The largest group of fodder crops are perennial grasses: Legumes: clover, shamrock, rye, bersum, asparagus, sedge, white lily, etc. Clover is one of the most common foods mentioned below. This article provides information on measures to combat pests that harm clover.

Key words.

Alfalfa, pest, spread, rodent, harvest, damage, control, tunlams, phytonomus, worm.

ГРЫЗУНЫ-ВРЕДИТЕЛИ ЛЮЦЕРНЫ И ЭФФЕКТИВНОСТЬ ПЕСТИЦИДОВ ПРОТИВ НИХ

Аннотация.

Наиболее многочисленную группу кормовых культур составляют многолетние травы: бобовые – себарга, люцерна, шабдар, берсим, эспарсет, кашкарбеда, белая лилия и др. Люцерна является одним из наиболее распространенных продуктов, упомянутых ниже. В данной статье представлена информация о мерах борьбы с вредителями, наносящими вред люцерне.

Ключевые слова.

Люцерна, вредитель, распространение, грызун, урожай, повреждение, борьба, совки, фитономус, червь.

BEDA O'SIMLIGIDA UCHRAYDIGAN KEMIRUVCHI ZARARKUNANDALAR VA ULARGA QARSHI PESTIDSITLARNING SAMARADORLIGI

Anotatsiya.

Yem-xashak ekinlarilarining eng katta guruhini ko'p yillik o'tlar: dukkakkilar – sebarga, beda, shabdar, bersim, esparset, qashqarbeda, oq nilufar va boshqalar xisoblanadi. Quyida aytib o'tilganlardan keng tarqalgan ozuqa bu beda xisoblanadi. Ushbu maqolada bedaga zarar yetkazadigan zararkunandalarga qarshi kurash choralari bo'yicha ma'lumotlar berilgan.

Kalit so'zlar.

Beda, zararkunanda, tarqalish, kemiruvchi, xosil, zarar, qarshi kurash, tunlamlar, fitonomus, qurt.

Introduction.

Alfalfa (Medicago) is a group of annual and perennial herbaceous plants belonging to legumes, the main fodder crop. About 100 sciences are known. Blue clover (Medicago sativa L.) is the most common species in Central Asia. It has been cultivated in Central Asia for 5,000 years. Native to Iran, it was brought to Greece, Ancient Rome and North Africa about 2-2.5 thousand years ago. Later, alfalfa spread to Europe, North and South America, Australia as a cultivated crop. Alfalfa is the main crop of rotation in Central Asia and Transcaucasia.

Rodent pests of alfalfa

Clover leaf weevil or phytonomus (Phytonomus variabilis Hbst.) is a pest species belonging to Curculionidae family, Coleoptera family. Phytonomus is one of the serious pests of alfalfa in Central Asia, and every year the most valuable first crop of alfalfa can be completely destroyed as a result of severe damage. When there is only one larva per alfalfa stalk, the yield of grass per hectare is reduced by 17.2 centners (4.56 centners in terms of dry alfalfa).

In more northern districts or if the cold days in spring last longer, the second crop of alfalfa is also somewhat damaged. The length of the beetle (excluding the trunk) is 5-7 mm, the head is elongated in the form of a long tube.

Young beetles are yellowish-gray in color, with spreading hairs and bodies, and old beetles



Figure 1. Alfalfa infected with phytonomus from alfalfa fields in Sherabad district.

are dark-gray in color. Eggs are elliptical, 0.5–0.65 mm long and 0.3 -0.4 mm comes. The pupa is typically free and resembles an adult beetle.

The bulb is located in a round or short oval white cocoon made of soft tissue with wide cells. It is 5.5/18 mm long and 3.56 mm wide. *Phytonomus* hibernates as an adult beetle in places protected from the cold. It wakes up when the temperature in its wintering place rises to 12°C.

In the conditions of Central Asia, each female beetle lays up to 2500 eggs per day. There are at most 20-30 eggs in one stalk.



Figure 2. *Phytonomus* lichen and tuber taken from the meadows of Sherabad district

Research methods. During the accounting work, a sample is taken every 25 meters along the diagonal of the cultivated areas. The degree of damage to the leaves by pests is observed - the time when the plant is severely damaged. When making calculations, 10 places of the observed area are arranged in a checkerboard pattern along the crop field and each plant (at least 100) is examined. In the later phases of the crop, an entomological trap is used to count aphids, canadillas, weevils, cankers and entomophages. It is moved 25 times from 4 places on the field. Counting with Matrap is from 10 to 11 o'clock on warm days, when the beetles are active at this time. The number of pests per 1 m² was determined based on the formula of M. S. Gilyarov.

Experiments were conducted according to the approved work program according to the following scheme:

1. EMABEN 5% s.d.g
2. KARACHE DUO 25% n.kuk
3. Control - (without drug)

The main purpose of using drugs is to achieve the maximum destruction of phytonomus during the growth period of alfalfa, because phytonomus can disrupt the processes taking place in the plant and delay its development. 14-day countermeasures were taken against Phytonomus. The results of the research conducted in Sherabad district in 2023 are presented in Table 1, in which it was found that all tested chemical preparations have high efficiency in the fight against phytonomus. According to the results of the conducted experiments, pesticides belonging to different chemical groups EMABEN 5% s.d.g (Emamectin behzoat 50g/kg) 04 kg/ha, KARACHE DUO 25% n.kuk (acetamiprid 200 gr/l + lambdacyhalothrin 50 gr/l) 0.35 kg/ha is recommended to be used against phytonomus.

Research results. According to the results of the conducted experiments, the biological effectiveness of pesticides belonging to different chemical groups when used against phytonomus.

Table 1

№	Name of the drug	Consumption rate kg/ha	The number of phytonomes in 1 m ²				Biological efficiency in		
			Before processing	After processing			3	7	14
				3	7	14			
1	EMABEN 5% s.d.g	0,4	32,5	27,5	15,5	6	15,3	52,3	81,5
2	KARACHE DUO n.kuk	0,35	33	28,5	16,5	7,5	13,6	50	77,2
3	Control (not processed)	-	31,5	29	25	23	-	-	-

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