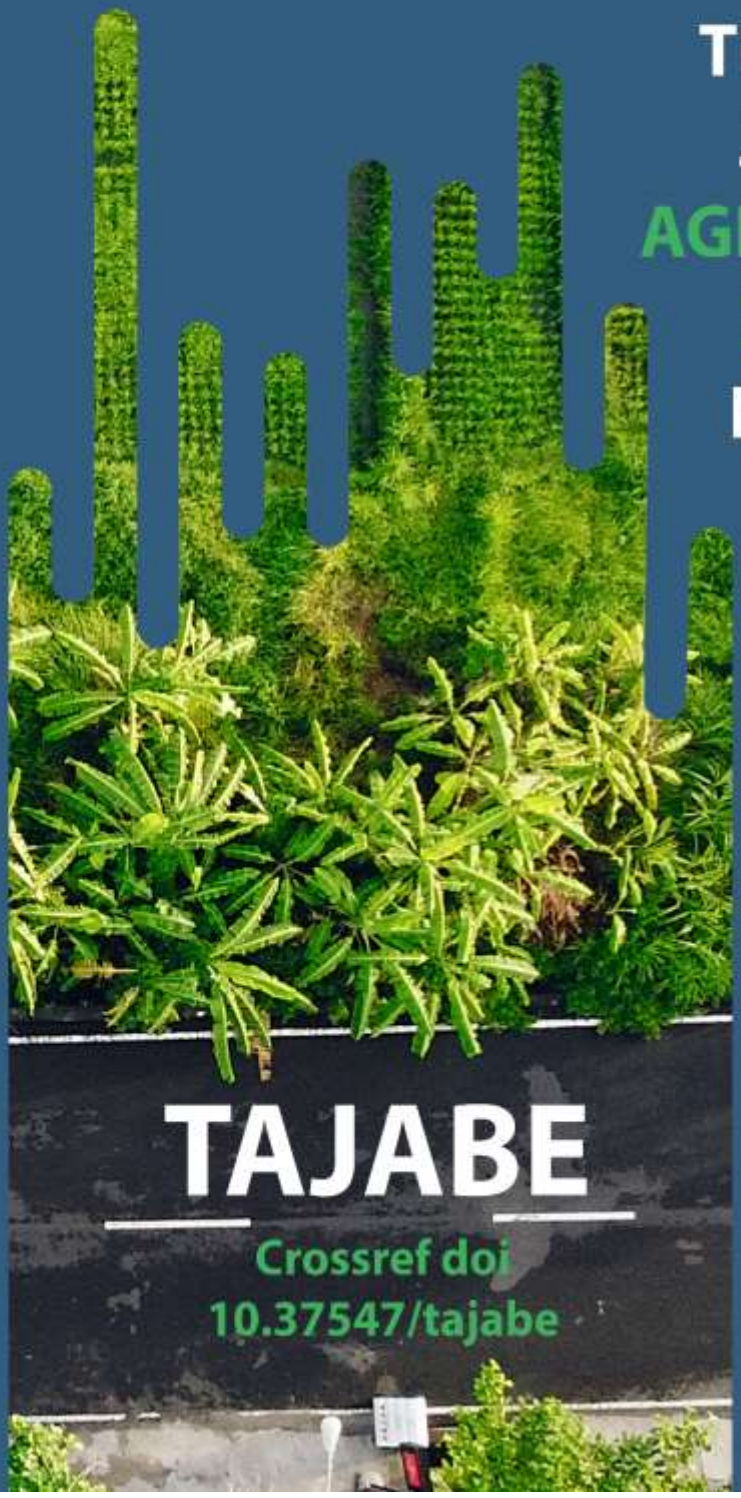
2020 Impact Factor 5.312



THE AMERICAN JOURNAL OF AGRICULTURE AND BIOMEDICAL ENGINEERING

VOLUME 02

TAJABE

Crossref doi
10.37547/tajabe

THE AMERICAN JOURNAL OF AGRICULTURE AND BIOMEDICAL ENGINEERING

(TAJABE)
SJIF-5.34
DOI-10.37547/TAJABE

Volume 2 Issue 10, 2020

ISSN 2689-1018

The USA Journals, USA
www.usajournalshub.com/index.php/tajabe

The American Journal of Agriculture and Biomedical Engineering (TAJABE) to persuade the prospect of Agriculture and Biomedical Engineering and its reception globally by publishing ground-breaking contributions on all facets of Agriculture and Biomedical Science endeavor.

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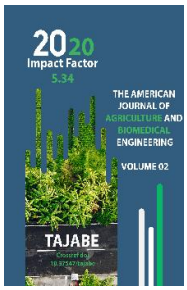
Website: www.usajournalshub.com/index.php/tajabe

Email: editor@usajournalshub.com

Publisher Address: 304 S. Jones Blvd #5245 Las Vegas, NV 89107 USA

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: October 28, 2020 | **Pages:** 23-26
Doi: https://doi.org/10.37547/tajabe/Volume02Issue10-05

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746



Journal Website: http://usajournalshub.com/index,php/tajabe

Kotoran 80% S.P. Against Turnip Moths

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ABSTRACT

Field researches in 2018-2019 at "Urin-Bahrom-Bekzod" farm, located in Jondor district of Bukhara region, showed that number of eggs of turnip moth reduced by 3 times and caterpillars – by more than 6 times in the result of Kotoran treatment on April 10th in the process of cotton sowing, 10-15 days before turnip moth's mass oviposition (by 30 metres tape-method with PGS-2.4 tractor in proportion 0.4 kg/ha or 12 l/ha) (Table 1).

KEYWORDS

Turnip moth, Kotoran, Zorro, Penmort, Samurai, Stomp, Trinity, Print, Fist, Chesagard.

INTRODUCTION

Such herbicides as Kotoran 80%, Zorro 33%, Penmort 33%, Samurai 33%, Stomp 33%, Trinity 33%, Print 33%, Fist 33%, Chezagard 50% and others are widely used in cotton growing to control pests and weeds.

In our experiments, we studied the effect of herbicides on the number of the main pests of cotton, mainly turnip moth (Agrotis segetum) as one of the most common pests of cotton seedlings.

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In the context of long-exploited soils of Bukhara region, especially large harm to cotton is caused by turnip moth. Butterflies of turnip moths prefer for oviposition such weeds as black nightshade, shiritsa, white marie, that mostly clogged cotton fields of Bukhara region. That's why, struggle against weeds being reserves for turnip moth oviposition is of great practical interest. We tested the effectiveness of the herbicide in combating pests in cotton fields in 2018-2019.

Field researches in 2018 at "Urin-Bahrom-Bekzod" farm, located in Jondor district of Bukhara region, showed that number of eggs of turnip moth reduced by 3 times and caterpillars – by more than 6 times in the result of Kotoran treatment on April 10th in the process of cotton sowing, 10-15 days before turnip moth's mass oviposition (by 30 meters tape-method with PGS-2.4 tractor in proportion 0.4 kg/ha or 12,l/ha).

Number of eggs and caterpillars of turnip moth, seedlings of weeds and cotton was determined by counting plants and viewing the soil with a 10-fold magnifying glass. With each repeated experiments 10 samples (size: 2,025 m2, 50*50 cm) were subjected to analysis. Counts were carried out with an interval of 5 days. The results of surveys have shown that on experimental plots the number of turnip moth's eggs and larvae, as well as pest and weeds damaging cotton seedlings was much less than initially. On 1 m2 of experimental plots, an average of 9.2 eggs, 0.9 caterpillars and 2.1 damaged cotton seedlings were found, whereas these figures were 3.2, 6.4 and 6.2 respectively in the control. Thus, we can see reduce of number of eggs (3 times) and cutworms (more than 6 times) in the cotton fields. In addition, destruction of weed seedlings deprived butterflies oviposition.

In 2019, we tested the above-mentioned method of combating turnip moth on an industrial scale. A cotton field with an area of 12 hectares was chosen for the experiment. The whole field undergone Kotoran liquid in proportion 0.4 kg/ha or 12,l/ha in the process of sowing, part of the field was left untouched for control.

Sowing of cotton was held on April 9, 2019, with simultaneous herbicide treatment, 10-14 days before mass oviposition of turnip moth eggs. Counting results are shown in the table. Kotoran significantly reduced the number of eggs and caterpillars of turnip scoop by suppressing weeds.

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Table

Influence of which on the number of winter moths on cotton crops in 2019 (sowing results)

Count date	Number of weeds *per* $1m^2$		Number of pests *per* $1\ m^2$		Damaged seedlings, *per* $1\ m^2$	Killed seedlings *per* $1\ m^2$
	total	inhabited by moth eggs	eggs	caterpillars		
	Kotoran processing (0.4 kg/ha)					
20.04	111	2	3	0	0	0
04.27	132	2	ten	6	1	1
01.05	233	1	25	five	2	0
06.05	29	five	7	6	1	1
11.05	18	0	0	2	6	6
15.05	25	0	0	2	6	4
21.05	9	0	0	2	3	2
26.05	2	0	0	1	4	2
Average	69.9	2.5	11.2	3.0	3.0	2.0
	Without processing (control)					
20.04	632	4	13	2	0	0
04.27	350	7	90	8	0	0
01.05	687	12	133	12	3	1
06.05	1301	11	129	8	five	3
11.05	379	0	0	12	8	2
15.05	206	0	0	14	14	10
21.05	176	0	0	8	14	10
26.05	95	0	0	4	10	0

It should be noted that in combating turnip moth, continuous application is more effective than belt application. The advantage of the described method of struggle is its availability

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for use in any farm without large financial and labor costs.

Thus, the described method of controlling turnip moth on cotton crops can be recommended as one of the ways to protect cotton seedlings from damage by caterpillars.

REFERENCES

1. Alkhasyants E.L., Komilov A.I. - "Pre-emergence weed control", "Cotton growing" No. 4. Moscow, 1972.
2. V.N. Chirkov. Workshop on plant growing. Tashkent. "Ukituvchi" PH, 1972.
3. F.M. Uspensky. What should be the system of integrated plant protection? Moscow, "Cotton growing" magazine, 1975, No. 2, pp. 25-30.
4. Tukhtaev Sh.Kh."Measures to prevent damage to cotton by turnip moth" Abstract. Tashkent, 1992.
5. Tukhtaev Sh.Kh. and others. “Study of the influence of different methods of applying herbicides on turnip moth (Agrotis segetum) and soil entomophages, Bukhara, 2018.
6. Aleev B.G. “Application of herbicides in cotton-growing of Uzbekistan”. "Fan" Publishing house, Tashkent 1971
7. Imamaliev A.I. and others. "Herbicides and their effect on plants". Tashkent Agricultural Institute, Tashkent, 1973.