

THE STUDY REGARDING THE DECREASE OF MITES ATTACKS IN INPUT AGRICULTURE

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INTRODUCTION

Specifically grown technology of bean (frequency of irrigation, density of plants, etc) is creating optimal conditions for multiplication and development of mites (Calin Maria, 2005).

Candea (1984) mentioned in Romania the following mite species as pest in the gardening: *Tetranychus urticae* Koch., *Hemitarsonemus latus* Banks., *Rhizoglyphus echinopus* Fum. et Rob., *Tyrophagus putrescentiae* Schrank.

Among the mite species Savescu mentioned as economical pest, the Red Spider Mite - *Tetranychus urticae* Koch.. This pests was signaled in all continents (Câdea, 1984, 1986; Calin Maria, 2005) and in all Romanian areas where are cultivated vegetable, flower or another plants.

The control strategies in input agriculture used the prevention and limitation of *Tetranychus* attack. This strategies offered the optimal protection of crop plants and they had a minimal impact above the environment (Speiser și colab., 2001). To achieve these goals was necessary to use the preventive and curative methods for limitation of mite attack.

THE MATERIALS AND WORK METHODS

The trials were performed at Vegetable Research and Development Station Bacau, in 2007. The 2007 was favorable for attack of mite because the year was very dry and hot.

The observations and experiments were made in open field with the following varieties of bean: Gondola, Prelude, Maxidor, Harwester, Contendor, Sonesta, Harbone, Timpurie de Bacău

The attack of pest was described by the degree, frequency and intensity.

To achieve this goal, it has been made observations, regarding the frequency (F%) and intensity (I%) of attack in the conditions of natural

infestation. The data was used for estimate the degree of attack (GA%) and for timely control programs which can be implemented in applications of treatments. The obtained data were correlated with stage of plants.

RESULTS AND COMMENTS

The attack of mite appeared in June (table 1). The climatic conditions of July and August were favorable for development of mite (very dry and very hot) and the degree of attack increased till 39,8% in 2 trial.

It is observed that in August the degree of attack was maximum (table 1 and fig.1).

In the climatic conditions of 2007 the behavioral of studied varieties were different (table 2). Can you see that the yield data of varieties: Prelude, Contendor and Maxidor were superior of control variant Timpurie de Bacau 3.0 t/ha. The yield of Prelude was 4.0 t/ha, the yield of Contendor was 3.8 t/ha and the yield of Maxidor was 3.2 t/ha.

ABSTRACT

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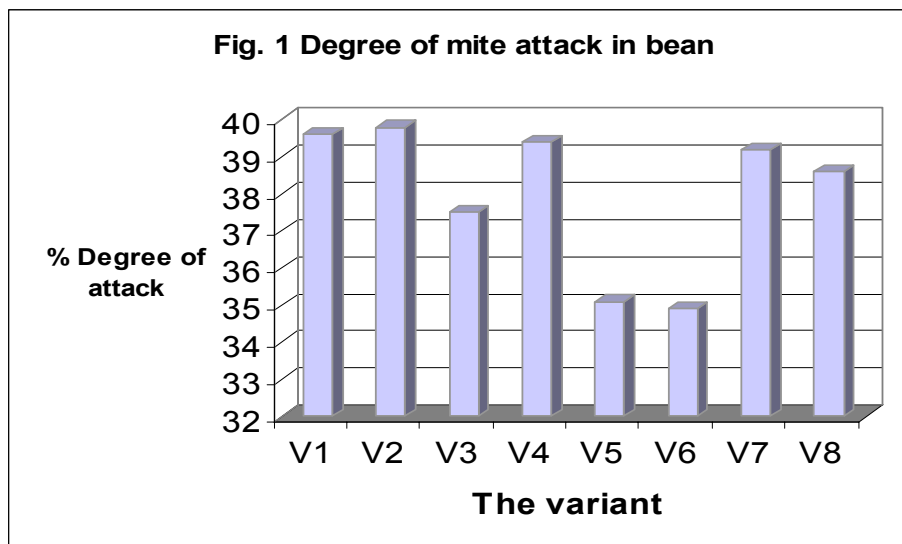
Table 1. Dynamic of mites attack at the bean

No. trial	Specification	June	July			August	Coments
		3	1	2	3	1	
1	Frequency of attack (F%)	100	100	100	100	100	Start of attack - 23.06.2007
	Intensity of attack (I%)	39,6	7,9	19,4	25,3	39,6	

No. trial	Specification	June	July			August	Coments
		3	1	2	3	1	
2	Degree of attack (%)	39,6	7,9	19,4	25,3	39,6	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	39,8	7,6	19,1	25,7	39,8	
3	Degree of attack (%)	39,8	7,6	19,1	25,7	39,8	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	37,5	8,2	18,4	26,2	37,5	
4	Degree of attack (%)	37,5	8,2	18,4	26,2	37,5	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	39,4	7,6	19,8	25,5	39,4	
5	Degree of attack (%)	39,4	7,6	19,8	25,5	39,4	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	35,1	4,9	18,4	26,6	35,1	
6	Degree of attack (%)	35,1	4,9	18,4	26,6	35,1	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	34,9	7,4	19,1	27,3	34,9	
7	Degree of attack (%)	34,9	7,4	19,1	27,3	34,9	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	39,2	7,8	19,1	25,7	39,2	
8	Degree of attack (%)	39,2	7,8	19,1	25,7	39,2	Start of attack - 23.06.2007
	Frequency of attack (F%)	100	100	100	100	100	
	Intensity of attack (I%)	38,6	9,9	22,4	27,3	38,6	
	Degree of attack (%)	38,6	9,9	22,4	27,3	38,6	Start of attack - 23.06.2007

Table 2. Yield data of bean varieties

No. trial	Variety	Yeld (t/ha)	Diference compare with Martor (t/ha)	The first harvest	The end harvest
1	Gondola	2,4	- 0,6	29.06.2007	27.07.2007
2	Prelude	4,0	1,0	29.06.2007	27.07.2007
3	Maxidor	3,2	0,2	29.06.2007	27.07.2007
4	Harwestor	3,0	0	29.06.2007	27.07.2007
5	Contendor	3,8	0,8	29.06.2007	27.07.2007
No. trial	Variety	Yeld (t/ha)	Diference compare with Martor (t/ha)	The first harvest	The end harvest
6	Sonesta	1,9	- 1,1	29.06.2007	27.07.2007
7	Harbone	2,4	- 0,6	29.06.2007	27.07.2007
8	Timpurie de Bacău (Control)	3,0	x	29.06.2007	27.07.2007



CONCLUSIONS

The trials were performed at Vegetable Research and Development Station Bacau, in 2007. The 2007 was favorable for attack of mite because the year was very dry and hot.

The observations and experiments were made in open field with the following varieties of bean: Gondola, Prelude, Maxidor, Harvester, Contendor, Sonesta, Harbone, Timpurie de Bacău

The attack of mite appeared in June. The climatic conditions of July and August were favorable for development of mite and the degree of attack increased till 39,8 % in 2 trial.

In the climatic conditions of 2007 the behavioral of studied varieties were different. The yield data of varieties: Prelude, Contendor and Maxidor were superior of control variant Timpurie de Bacau - 3.0 t/ha. The yield of Prelude was 4.0 t/ha, the yield of Contendor of 3.8 t/ha and the yield of Maxidor was 3.2 t/ha.

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