

BIOLOGICAL ACTIVITY OF SYNTEZIROVANNYX SOEDINENIY PRODUCTION N, N- POLYMETILEN BIS [(NO-AROMATILO- CYCLOALKANOLOILO) KARBAMATOV]

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ABSTRACT

The article describes the biological activity of N, N-hexamethylene bis [(cycloalkanol) -carbamate] and its application in the national economy. Numerous studies in the field of derivatives of carbamates and bis-carbamates are currently being awakened not only by theoretical, but also by practical needs.

Keywords: *Defoliantes, herbicides, pesticides, growth regulators, N, N-hexamethylene bis [(cycloalkanoloilo) -carbamates], SSJ-1 N, N-hexamethylene bis [(L'-borneoilo) -carbamate], N, N-hexamethylene bis [(cycloalkanoloilo) -carbamates].*

АННОТАЦИЯ

В статье описана биологическая активность N,N-гексаметилен-бис[(циклоалканол)-карбамата] и его применение в народном хозяйстве. Многочисленные исследования в области производных карбаматов и бискарбаматов в настоящее время пробуждаются не только теоретическими, но и практическими потребностями.

Ключевые слова: *Дефолианты, гербициды, пестициды, регуляторы роста, N,N-гексаметилен-бис[(циклоалкалоило)-карбаматы], SSJ-1 N,N-гексаметилен-бис[(L'-борнеоил)-карбамат], N,N-гексаметилен-бис [(циклоалканолоил) -карбаматы].*

INTRODUCTION

From this point of view, derivatives of carbamates and bis-carbamates are of undoubted interest as substances with technical biological pharmacological activity. They are successfully used in almost all sectors of the national economy, in particular, in the technology of rubber vulcanization accelerators, additives and lubricating oils, they are used as starting products for the production of polymers, even in organic synthesis and as corrosion inhibitors.

As is known from the literature and patent data, among the derivatives of carbamates, compounds with different, diverse activities have been identified and

introduced [1, 2]. In this series, herbicides, pesticides, defoliants, technical plant growth regulators, medical and pharmacological preparations, and many others were found.

DISCUSSION AND RESULTS

The growth-stimulating activity of the synthesized compounds was studied in the laboratory of phytotoxicology of the Institute of Chemistry of Plant Substances of the Academy of Sciences of Uzbekistan.

Five new, previously unknown derivatives of N,N-hexamethylene bis[(cycloalkanoly)-carbamates] were studied. The studies were carried out in triplicate in order to experimentally determine the sensitivity of cultures to the action of drugs and establish its optimal effective concentration.

It is known that stimulating concentrations can be taken by those concentrations under the action of which the maximum stimulation is observed. The maximum stimulation of the roots and stems of seedlings of tomato varieties "Temp-8" was obtained by soaking the seeds in a 0.01-0.001% solution (at a dilution of 750 times) SSZh-1 N,N- hexamethylene bis [(L- borneoilo)-carbamate] . Stimulation of root growth was 107.5%, and the stem part 125.7% compared with the control. And when the seeds were soaked, the concentration of 0.1% in the SSG-2 solution, the stimulation of root growth was 123.3, and the stem part was 115.5% compared with the control. Research results. The study of preparations of the SSZh-1-5 class for growth-stimulating activity on cucumber seeds (Uzbekistan variety) gave very good results. The stem showed the greatest growth in preparations of SSZh-1: N,N-hexamethylene bis [(L- borneoilo)-carbamate] and SSZh-3: derivatives of N,N-hexamethylene bis [(cycloalkanoly)- carbamates] at a concentration of 0.01% compared with the control (Roslin), increased by 14%, respectively. The study of the studied preparations for the growth-stimulating activity of cotton showed that the preparations contributed to the germination of seeds and the development of the root system of seedlings, for example, the preparation SSG-1 N,N-hexamethylene bis [(L- borneoilo)-carbamate] at a concentration of 0.001% accelerated the germination of seeds by 3 day 13 to 15.7% higher than control.

Conclusion. Thus, the media of the tested preparations, SSZh-1, SSZh-2, SSZh-3, SSZh-4 and SSZh-5, are the most effective growth-stimulating preparations of vegetable crops in laboratory conditions, and a further deeper study in the field is recommended [3].

Growth-promoting activity of bis-cyclocarbamates derivatives

Table 1.

Ciphers	Name drug	Concentrated radios %	Germination seeds through Day 5, %	Growth of seedlings on the 10th day, %	
				root	stem
SSJ-1	N,N-hexa methylene bis [(L-boron neoilo)- carbamate]	Biotest cucumbers			
		0,1	100,0	80,7	90,8
		0,01	69,3	106,7	125,7
		0,001	53,6	123,6	148,7
	The control	H ₂ O	76,9	100,0	100,0
	Roslyn	0,75	85,0	104,8	110,2
SSJ-2	N,N-hexamethylene bis [(benzyloilo)- carbamate]	0,1	100,0	106,7	113,8
		0,01	76,9	101,6	112,3
		0,001	64,3	101,2	110,5
		The control	H ₂ O	76,9	100,0
	Roslyn	0,75	85,0	104,8	110,2
SSJ-3	N,N-hexamethylene bis [(cyclohexanoloyl)-carbamate]	0,1	69,3	107,7	120,8
		0,01	84,6	111,1	122,8
		0,001	84,6	127,7	126,0
		The control	H ₂ O	76,9	100,0
	Roslyn	0,75	80	106,2	105,0
SSJ-4	N,N-hexamethylene bis [(corichoilo)-carbamate]	0,1	90,0	89,7	100,9
		0,01	90,0	125,0	154,0
		0,001	90,0	105,0	101,6
		The control	H ₂ O	76,9	100,0
	Roslyn	0,75	86,2	106,2	105,0
SSJ-5	N,N-hexamethylene bis [(p-ferrocenylphenoxy)carbamate]	0,1	97,2	106,1	109,7
		0,01	100,0	104,3	114,9
		0,001	99,3	112,2	124,2
		The control	H ₂ O	90,2	100,0
	Roslyn	0,75	90,1	106,2	105,0

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