



## GROWING ACTIVITY OF BIS-CARBAMATE COMPOUNDS IN THE AGRARIAN INDUSTRY

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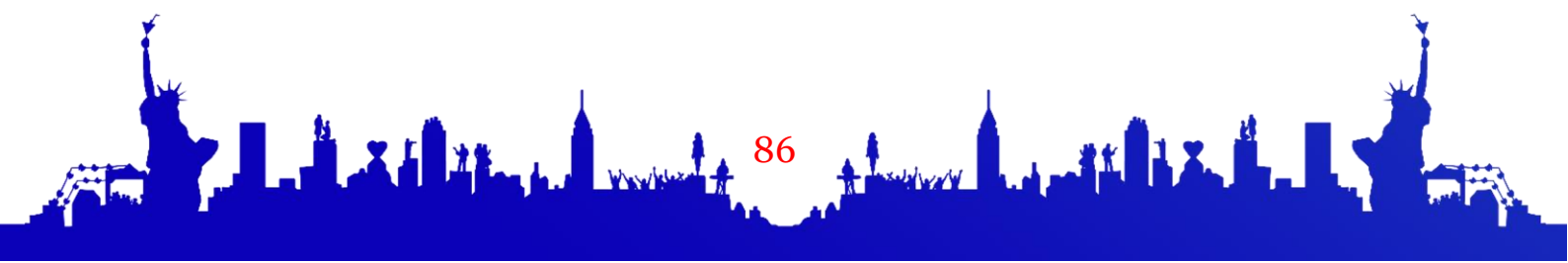
**Annotation:** This article discusses the (rostostimulant) properties of synthesized carbamate derivatives that control plant growth and development when used in agricultural ramidor and Acorn varieties.

**Keywords:** carbamate, growing biostimulants, bis-[(amyloilo) - carbamate, dimethylsulfoxide, bis [(methyloylo) carbamate

Substances with different biological activity have been identified among carbamate derivatives [1]. These are herbicides, biostimulants growing plant substances, defoliants, pesticides, fungicides and pharmacologically active substances found. In the field where the experiment was carried out, the tomato variety "Temp" and the Hawthorn variety "Bukhara-6", which are now widely used in agriculture, were planted. Preparations of the Xm-brand were dissolved in a dimethylsulfoxide solvent, and then various concentrations of them were prepared with water [2]. The seeds were ivitized for 18-20 hours before sowing. For the experiment, 3 different 0.1%, 0.01% and 0.001% concentrated solutions were prepared. When the experiments were carried out four times again, the growth of the root and body in tomatoes paid off well in 10 days, and in acorns- in 7 days. From the results of the experiment, it turned out that a good result was observed when we XM-4 Hexamethylene bis-[(amyloilo)-carbamate], an effective seed that best affects tomatoes, into a solution of 0.1 and 0.01% li (Table 1).

**Table 1.**

**Effect of preparations on the germination and growth of tomato seeds**





| No |                                                  | Conn.<br>%                    | Maturation,<br>%                | Root<br>growth,<br>%                          | Stem<br>growth,<br>%                          |
|----|--------------------------------------------------|-------------------------------|---------------------------------|-----------------------------------------------|-----------------------------------------------|
|    | <b>Control</b>                                   |                               | 70,0                            | 100,0                                         | 100,0                                         |
| 1  | XM-1 Hexamethylene-bis[(methyloilo) carbamate]   | 0,1<br>0,01<br>0,001          | 90<br>60<br>90                  | <b>105,1</b><br><b>125,9</b><br><b>134,2</b>  | <b>114,8</b><br><b>127,6</b><br><b>127,6</b>  |
| 2  | XM-2 Hexamethylene-bis[(ethanoilo) carbamate]    | 0,1<br>0,01<br>0,001          | 90,0<br>60,0<br>90,0            | 95,1<br><b>125,9</b><br><b>134,2</b>          | <b>114,8</b><br><b>127,6</b><br><b>127,6</b>  |
| 3  | XM-3 Hexamethylene-bis[(n-propanoilo) carbamate] | 0,1<br>0,01<br>0,001          | 100,0<br>100,0<br>100,0         | <b>110,7</b><br><b>114,6</b><br>85,4          | 94,9<br><b>115,3</b><br><b>119,9</b>          |
| 4  | XM-4 Hexamethylene-bis[(isoami-loilo) carbamate] | 0,1<br>0,01<br>0,001<br>0,001 | 100,0<br>100,0<br>100,0<br>80,0 | <b>110,7</b><br>102,0<br><b>148,8</b><br>82,0 | <b>115,8</b><br>103,6<br><b>130,1</b><br>92,5 |
|    | <b>Roslin</b>                                    | 0,75                          | 89,0                            | <b>120,9</b>                                  | <b>113,0</b>                                  |

Compared to the control, tomato showed that the effect on root system growth was 170.7% and 148.8%, while the effect on body growth was 156.1% and 138.8% higher. A similar drug, XM-1 Hexamethylene-bis[(methyloilo) carbamate], had an effect on tomato body growth of 127.6% in 0.001%, compared to root growth of 134.2%. The effect of the drug XM-2 Hexamethylene-bis[(etanoilo)-carbamate] on Root and body growth when tested on Tomatoes-gave an effect of 125.9% and 127.6% at 0.01%, while 0.001% gave an effect of 134.2 and 127.6%, respectively.

As can be seen from the table, the biostimulating properties of the drugs showed very high effects, despite the fact that they are diluted 7500 times more than the drug "Roslin", which is currently used in agriculture, and the drugs were transferred to the agricultural agrarian industry for examination in field conditions [3].

The biostimulating properties of the above preparations have also been examined in the Acorn. Scientific research was carried out in the fields of the Kashkadarya region, Kasbi district. Before planting, the seed seeds of the Bukhara-6 variety Acorn were treated with a 0.001% concentrated solution of



the drug XM-1. The germination of the seed treated with a 0.001% concentrated solution of the drug XM-1 was 112% on the 5th day compared to the control option. Increased STEM and root growth by -122.3% at 0.001% (Table 2).

**Table 2**

**Effect of preparations on the germination and growth of acorns**

| Nº |                                                    | Conn.% | Maturation,<br>n,% | Root<br>growth,<br>% | Stem<br>growth,<br>% |
|----|----------------------------------------------------|--------|--------------------|----------------------|----------------------|
|    | <b>Control</b>                                     |        | 85,0               | 100,0                | 100,0                |
| 1  | XM-1 Hexamethylene-<br>bis[(meti-loilo) carbamate] | 0,1    | 93,0               | 110,4                | <b>124,7</b>         |
|    |                                                    | 0,01   | 96,0               | 121,2                | 118,3                |
|    |                                                    | 0,001  | 98,0               | <b>122,3</b>         | <b>122,3</b>         |
|    | Roslin                                             | 0,75   | 85,0               | 109,8                | 112,7                |
|    |                                                    |        |                    | 113,8                | 110,2                |

When a 0.001% concentrated solution of the drug xm-1 is applied in cotton fields planted in the Kasbi district, an additional 1.9 ts per hectare of land, a total of 4,687 tons of cotton wool are expected to be obtained. It was also observed that the control option is relatively early, there is an opportunity to increase the resistance to heat and pests. Also, the properties of synthesized substances that control the growth and development of plants (rostostimulant) were studied. Of the compounds synthesized, 2 are substances with a strong stimulant property, and (cotton and tomato) some of them were recommended for use in the agrarian industry..

**References:**

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