**Abstract Guidelines**

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*Abstract template*

### Molecular-genetic analysis of determinants, coding for synthesis of antimicrobial metabolites in bacteria of genus *Bacillus*

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Bacteria of genus *Bacillus* are producers of a wide spectrum of biologically active substances, including antibiotics, surface-active agents, enzymes, etc., which determine their application for development of biopreparations for plant protection [1]. The most well-known antagonistically active metabolites of bacilli are lipopeptides of surfactin (fig. 1) and iturin groups [2, 3].



**Figure 1** – Taxonomic affiliation of studied test-cultures of microorganisms

One of the prospective directions of bioremediation of environment is introduction of active microorganisms-destructors of xenobiotics in soil, contaminated with pesticides (Tab. 2).

**Table 2** – Growth of bacteria at different oil concentrations

|  |  |
| --- | --- |
| Oil concentration,% | Strain |
| 90 | 102 | 108 | 109 | 112 | 114 |
| 5 | 25 | 22 | 30 | 24 | 35 | 32 |
| 10 | 15 | 13 | 11 | 12 | 28 | 23 |
| 15 | 12 | 10 | 10 | 10 | 24 | 22 |
| 20 | 9 | 7 | 7 | 8 | 16 | 18 |
| 50 | 5 | 4 | 5 | 6 | 8 | 10 |

***Literature***

1. Harpin induces disease resistance in *Arabidopsis* through the systemic acquired resistance pathway mediated by salicylic acid and the NIM1 gene / H. Dong [et al.] // Plant J. – 1999. – Vol. 20, № 2. – P. 207-215.

3. Fontanilla, M. Effects of the foliar-applied protein “Harpin(Ea)” (messenger) on tomatoes infected with *Phytophthora infestans* / M. Fontanilla, M. Montes, R. De Prado // Communications in agricultural and applied biological sciences. – 2005. – Vol. 70, № 3. – P. 41-45.