**Abstract Guidelines**

I International Scientific and Practical Conference

**“Innovative biotechnologies for environmental protection:  
from theory to practice”,**

Minsk, 23-25 April 2024

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**Paper sheet size** А4 (297 × 210 mm), book orientation, margins 20 mm, indentation 10 mm, justified alignment.

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**Abstract title:** Times New Roman font, 17 pt, bold typeface, left alignment. **Surnames and initials of the authors:** Times New Roman font, 14 pt, bold typeface, left alignment. **Name of the Institution:** Times New Roman font, 13 pt, italic typeface, left alignment.

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**Figures** must be of reasonable size and quality to view. Composite figures should be grouped. Capture of the figure should be typed in Times New Roman 14 pt, bold typeface, at ordinary spacing, center alignment. Figure legends should be typed in Times New Roman, 12 pt, ordinary spacing, placed between the figure and its capture.

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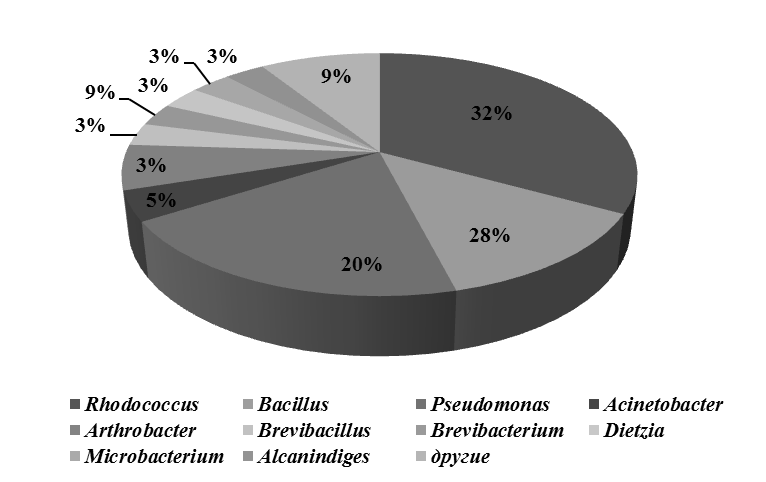
### Molecular-genetic analysis of determinants, coding for synthesis of antimicrobial metabolites in bacteria of genus *Bacillus*

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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.