Studies on Tego 51 as antifungal disinfectant

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Examination of different foods and feedingsuffs revealed the presence of more than 20 species of moulds, of which Mucor, Aspergillus fumigatus, A. niger, A. flavus and Scopulariopsis were common (Refai et al., 1968, Refai and Sadek, 1968 and Refai and El-Bahay, 1968).

The presence of moulds in foods and feedingsuffs is an important problem, as many of such moulds are known to be pathogenic for man and animals, and others to cause mycotoxicoses, as they produce toxins. The best treatment is to get rid of all these fungi by using a potent antifungal disinfectant regularly.

There are many disinfectants on the market. To choose one of them we have carried laboratory and field examination of Tego 51, Rohmultisept, Antigerm 50 as well as Cupper, and Ferrous sulphate.

Results

The best results were obtained by Tego 51 (Table 1).

Table 1. Effect of various disinfectants on Aspergillus species after 10 minutes contact time

<table>
<thead>
<tr>
<th>Fungi</th>
<th>Tego 51 1%</th>
<th>Tego 51 2%</th>
<th>Tego 51 3%</th>
<th>Rohmult. 1%</th>
<th>Rohmult. 2%</th>
<th>Rohmult. 3%</th>
<th>Antigerm 1%</th>
<th>Antigerm 2%</th>
<th>Antigerm 3%</th>
<th>Cupper 5%</th>
<th>Cupper 8%</th>
<th>Ferrous 1%</th>
<th>Ferrous 5%</th>
<th>Ferrous 8%</th>
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<tbody>
<tr>
<td>Aspergillus flavus</td>
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After 10 minutes Aspergillus fumigatus was killed by Tego 51 in a dilution of 1%. All test fungi were killed by 2% Tego 51 after 10 minutes or by 1% Tego 51 after 15 minutes contact time.

In the field, Tego 51 proved to be highly efficient. 20 minutes after disinfection of a poultry house, fungi could be isolated only from the air, whereas all samples collected from different sites in the house were negative. However, after repeated disinfection with Tego 51 the spores found in air were also killed.

Since the use of Tego 51 in disinfection we have no problems with fungi.

Summary

Rohmultisept, Antigerm 50, Tego 51, cupper and ferrous sulphate were tested for their activity against Aspergillus flavus, A. fumigatus and A. niger. The best results were obtained by Tego 51. After 15 minutes contact time all test

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fungi were killed. Also, field experiment revealed that Tego 51 is a good antifungal disinfectant.

References