

Reduction of aflatoxin B1 in chicken feed by using *Saccharomyces cerevisiae*, *Rhizopus oligosporus* and their combination

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Abstract

Aflatoxin B1 is a toxigenic and carcinogenic compound produced by *Aspergillus flavus* and *Aspergillus parasiticus*. An approach to prevent aflatoxin contamination in feed was carried out by using *Saccharomyces cerevisiae* (Sc) and *Rhizopus oligosporus* (Ro). *Aspergillus flavus* was cultured together with Sc, Ro and their combination (ScRo) in chicken feed. The aflatoxin B1 content was observed at day 0, 5, 10 and 15. The result showed that aflatoxin B1 contaminations in feed were reduced by Sc, Ro and ScRo addition. The highest reduction of aflatoxin B1 content was shown at day 5 for all treatments with Sc, Ro and ScRo. The best activity of reducing aflatoxin B1 was shown by Ro. Although the ability of reducing aflatoxin B1 of Sc, Ro or ScRo was not significantly different, Sc or Ro gave the better result than ScRo and they are better used individually.

Keywords aflatoxin B1 - reduction - *Rhizopus oligosporus* - *Saccharomyces cerevisiae*