

EZ-Cut Fungus Control Ingredients Articles

<http://www.ingenta.com/isis/searching/Expand/ingenta?pub=infobike:/klu/bico/2003/0000...>

Author: Biological Product Laboratory, Botany Department, University of Allahabad-211002, India; email shahiindia@rediffmail.com

Publisher: Kluwer Academic Publishers

During antifungal screening of the essential oils of some angiospermic plants, lemongrass oil (*Cymbopogon flexuosus*) showed potent bioactivity against dominant post harvest fungal pathogens. The minimum bioactive concentrations with fungicidal action of the oil was found to be 0.2 $\mu\text{l ml}^{-1}$ for *Alternaria alternata*, 0.4 $\mu\text{l ml}^{-1}$ for *Aspergillus flavus*, *A. fumigatus*, *A. niger*, *A. parasiticus*, *Cladosporium cladosporioides*, *Colletotrichum capsici*, *C. falcatum*, *Curvularia lunata*, *Fusarium cerealia*, *F. culmorum*, *F. oxysporum*, *F. udum*, *Gloesporium fructigenum*, *Penicillium expansum*, *P. italicum*, *P. implicatum*, *P. digitatum*, *P. minio-luteum*, *P. variable* and 0.5 $\mu\text{l ml}^{-1}$ for *Botrytis cinerea*, *Helminthosporium oryzae*, *H. maydis*, *Phoma violaces*, *Rhizopus nigricans*. The oil exhibited potency against heavy doses (30 mycelial disc, each of 5 mm in diameter) of inoculum at 1.0 $\mu\text{l ml}^{-1}$ concentrations. The bioactivity of the oil was thermostable up to 100^o C and lasted up to 48 months. The oil preparation did not exhibit any phytotoxic effect on the fruit skins of *Malus pumilo* up to 50 $\mu\text{l ml}^{-1}$ concentrations. Therefore the oil works as a pesticide against a wide range of plant pathogen fungi species.

<http://www.ams.usda.gov/nop/NationalList/TAPReviews/PotassiumSorbate37.pdf>

Information in this brief provided by the United States Department of Agriculture National Organic Standards Technical Advisory Panel

Potassium sorbate is primarily used as a fungistat and as a mold and yeast inhibitor. Most applications are in crop post-harvest handling and processing of food to extend shelf life. Other applications include a preservative for various microbial inoculants and biological soil amendments. Potassium sorbate was discovered to be effective at inhibiting the growth of microorganisms in the late 1930s. More recent studies in 1997 show that potassium sorbate is an effective antibacterial and antifungal agent in several types of soil and airborne plant pathogens. Potassium sorbate is Generally Recognized As Safe for use in the U.S. by the FDA and the EPA.

<http://www.bbg.org/gar2/topics/sustainable/handbooks/naturaldisease/leasttoxic.html>

Author: William Quarles (Pest Management Specialist) Executive Director; Bio-Integral Resource Center, Berkeley, California.

Publisher: Brooklyn Botanic Garden, 1000 Washington Ave., Brooklyn, New York Ph. 718-623-7200

Most garden diseases are caused by fungi. Vegetable oils can be used to control pathogenic fungi by repelling water needed for fungal growth. Emulsified cottonseed oil spray has considerable effectiveness against powdery mildew on crops and ornamental plants.