

## عنوان مقاله:

Investigation on mycoflora of poultry breeding houses' air and studying the efficacy of spraying and fumigation on inactivating the airspora

## محل انتشار:

فصلنامه طب دامی ایران، دوره 10، شماره 1 (سال: 1395)

تعداد صفحات اصل مقاله: 9

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## خلاصه مقاله:

**BACKGROUND:** A common concern of the poultry industry is the presence of fungal pathogens in the birds' environment, which may constitute a considerable health hazard to the birds, farmers, and those living in proximity of the farm. **OBJECTIVES:** The aims of this study were to assess the mycoflora in the indoor and outdoor environments of poultry breeding houses and studying the efficacy of disinfection methods, including spraying and fumigation, on reducing airspora concentration. **METHODS:** Indoor air of 12 poultry houses were sampled by exposing Petri dishes containing Sabouraud's glucose agar after removal of old litter, spraying with disinfectant solutions, and fumigation with formalin plus permanganate. The plates were incubated at 30 °C for seven days and fungi were counted and identified microscopically and macroscopically according to standard mycological methods. **RESULTS:** A total of 182 and 181 fungal colonies were recovered from indoor and outdoor air of poultry houses, respectively. *Candida* (30.2%) and *Aspergillus* (26.9%) species were the most common yeast and mold in the indoor, respectively, whereas *Alternaria* (37.6%) and *Candida* (19.3%) species were the most predominant fungi in the outdoor air of poultry houses. Disinfection of the poultry houses using spraying and fumigation methods led to a 38.1% and 75% reduction in airspora concentration ( $p < 0.05$ ), respectively. **CONCLUSIONS:** Based on the findings of the present study, *Candida* spp and *Alternaria* spp had the highest indoor and outdoor concentrations in poultry breeding houses' air, respectively, and fumigation was the most efficient method in reducing airspora.

## کلمات کلیدی:

airspora, *Candida*, fumigation, mycoflora, poultry house

## لینک ثابت مقاله در پایگاه سیویلیکا:

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