The present investigation aimed to survey the air-borne fungi inside and outside poultry farms in Qalubia District and their diurnal periodicities. The study was extended to record the air-borne fungi at different times of breeding at different localities. The study was moreover extended to investigate the incidence of aflatoxins and fungal spores contaminated poultry fodder sample which stored in our laboratory. The obtained fungal isolates were screened for aflatoxins production on a semisynthetic medium and the highest two isolates (*Pinicillium notatum* and *Aspergillus flavus* - Nos.33 & 435 respectivily) of yeilds were selected for studying the effect of some alephatic acids on aflatoxins production and fungal growth.

The reached results are summarized in the following points:-

1 - **83** species belonging to **26** genera were identified in all experiments of this investigation.

2 - In diurnal experiment, 7056 and 4716 isolates were collected on two media used (Czapek's-agar and Sabouraud-agar) inside and outside poultry farms respectively.

3 - 3872 isolates were collected on two media used at different localities experiment.

4 - *Cladosporium, Scopulariopsis, Aspergillus* and *Penicillium* were the most common air-borne fungal genera at diurnal and different localities experiments.

5 - 447 isolates were collected from stored poultry fodder sample during 12 months.

6 - The isolated strains from poultry fodder sample were screened for their ability to produce aflatoxins on yeast-exract-sucrose medium. Chloroform extracts of the toxin from broth were detected in U.V. light. The quality and quantity of aflatoxins were determined.

7 - 220 fungal isolates out of 447 isolates from aflatoxin-contaminated fodder sample were able to produce aflatoxins. These isolates representing the positive fungi exhibited blue or green fluorescence under U.V. light. This means that 49.22% of the total isolates produce aflatoxins B_1, B_2, G_1 or G_2.

8 - The positive fungal isolates were identified under eleven different genera; *Aspergillus, Penicillium, Scopulariopsis, Mucor, Cephalosporium, Absidia,*

Cladosporium, Rhizopus, Cunninghamella, Alternaria and *syncephalastrum* as follows:-

a. The genus *Aspergillus* had 101 isolates were belonging to eight different species; 63 isolates were identified as *A.flavus,* 8 isolates as *A.niger,* 5 isolates as *A.terreus,* 6 isolates as *A.ochraceus,* 10 isolates as *A.nidulans,* 5 isolates as *A.fumigatus,* 2 isolates as *A.wentii* and 2 isolates as *A.sydowi.*

b. The genus *Penicillium* had 55 isolates were belonging to three different species; 44 isolates were identified as *P.notatum,* 4 isolates as *P.oxalicum* and 7 isolates as *P.roqueforti.*

c. 29 positive isolates were identified as *Scopulariopsis bervicaulis.*

d. The genus *Mucor* was represented by three species; *M.circinelloides*(6 isolates),*M.ambiguus* (4 isolates) and *M.griseo-cyanus* (3 isolates).

e. The genus *Cephalosporium* was represented by 2 species; *C.roseogriseum* (3 isolates) and *C.curtipes* (3 isolates).

f. The genus *Absidia* was represented by 2 species; *A.butleri* (3 isolates) and *A.glauca* (2 isolates).

g. The genus *Cladosporium* was represented by 2 species; *C.cladosporiodes* (3 isolates) and *C.sphaerospermium* (one isolate).

h. *Rhizopus nigricans* was represented by 3 isolates.

i. *Cunninghamella echinulata* was represented by 2 isolates.

j. Each of *Alternaia cheiranthi* and *Syncephalastrum racemosum* were represented by one isolate.

k. *A.flavus* isolated No.435 was of high aflatoxin B_1 production (800 µg/L), while *P.notatum* isolate No.33 was also of high aflatoxins production and produce more than one type of aflatoxin, it was able to produce aflatoxins B_1, B_2 and G_1 (20, 20 and 240 µg/L respectively).

9 - The ability of some alephatic acids to inhibit aflàtoxins production were studied.

a. The effect of propionic and oxalic acids showed complete inhibition of growth and aflatoxins production by *Aspergillus flavus* isolate No.435 at all pH and concentrations used, while tartaric and citric acids cause the same effect at pH 2.5, 3.2 and 4.

b. The effect of propionic, oxalic and tartaric acids showed complete inhibition of fungal growth and aflatoxins production by *Penicillium notatum* isolate No.33 at all pH and concentrations of acid used, while citric acid cause the same effect at pH 2.5, 3.2 and 4.