

## ***Stemphylium botryosum***

(2007/6/18 2007/4/25 )

*Stemphylium botryosum*

% 100

%20 10 5 2.5 .

*Fusarium oxysporum* *Aspergillns flavus*

%20 *Cladosporium herbarum*, *Macrophomina phaseolina*

*M.phaseolina* *F.oxysporoum*

. , %11 33

# Effect of the Toxic Culture Filtrate of the Fungus *Stemphylium botryosum* on the Growth of Some Fungi and on the Germination of Some Plant Seeds

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## ABSTRACT

Results of study the effect of culture filtrate of *Stemphylium botryosum* on the germination percentage of barley, Lentil, wheat and chichpea seeds (in vitro), showed significant inhibition on germination which reached 100% in chichpea seeds.

As for plumule and radical lengths, the results indicated different degrees of inhibition ,minimum of which was the lentil seeds. The effect of different concentrations (2.5, 5, 10, 20 %) of the filtrate on the growth of some fungi (*Cladosporinm herbarum*, *Aspergillus flavus*, *Fusarinm oxysproum*, *Macrophomina phaseolina*) was demonstrated by the 20% concentration as it caused inhibitions in the growth of *M. phaseolina* and *F. oxysproum* 11% and 33% respectively. While the other concentration had no inhibitory effect on the fungi.

(1986) Debary (1991 , )

(1983) Durbin .

(Upadhyay and Mukerji , 1997)

*Stemphylium* spp. (1981) Yoder .(Upadhyay and Mukerji, 1997)

*Stemphylium* (111)

.*alteichin* ,*alternaria* (1.11.111) *Alternaeia* spp.

.

: ***Stemphylium botryosum*** .1

3 %1

9

(PSA) Potato sugerose agar

5 / 10

7-5 2+<sup>o</sup> 25

.(Ellis, 1971)

.Agar plate method (I.S.T.A., 1971)

: ***Stemphylium botryosum*** .2

Potato suger broth

, ° 121

(500) / 10

6 (Kohmoto et al., 1979) , (125)

25 15 5

(Membrane filter 0.22 mm)

:

:

-

*Aspergillus flavus* *Fusarium oxysporum*

*Macrphomina phaseolina* *Cladosporium herbarum*

/

(Parameter Whitney, 1970; Ellis, 1971)

(2)  
( ) % 20 10 5 2.5 0  
PSA ,  
0.6 .

PSA  
° 2+ 25  
(1999 ) 7-5

-  
:  
45-40 (1)  
(2004 )  
50 14  
25  
° 2+25

. 24 ° 70

*Stemphylium botryosum* -1

:  
(1)  
(32 ,36 45) %100  
(1965) Christensen .  
.

Stemphylium botryosum

(1)

.

| %   | ( ) | %   | ( ) | %   |     | %   |      | %   | %  |  |  |
|-----|-----|-----|-----|-----|-----|-----|------|-----|----|--|--|
| -   | 0.8 | -   | 0.9 | -   | 8.9 | -   | 15   | -   | 86 |  |  |
| 55  | 0.4 | 44  | 0.5 | 62  | 3.3 | 79  | 3.1  | 32  | 58 |  |  |
| -   | 0.5 | -   | 0.5 | -   | 5   | -   | 6.8  | -   | 98 |  |  |
| 60  | 0.2 | 60  | 0.2 | 52  | 2.4 | 76  | 1.6  | 36  | 62 |  |  |
| -   | 0.7 | -   | 0.5 | -   | 6.5 | -   | 10.3 | -   | 70 |  |  |
| 85  | 0.1 | 60  | 0.2 | 78  | 1.4 | 91  | 0.9  | 45  | 38 |  |  |
| -   | 0.4 | -   | 0.6 | -   | 3.1 | -   | 6.1  | -   | 92 |  |  |
| 100 |     | 100 |     | 100 |     | 100 |      | 100 |    |  |  |

\*

.

(1)

%100

%76 52

(2000)

Maheshwari

.%10

*Alternaria alternata*

(1)

%100

%60

% 85 60

.%55 44

(1967, Wood)

IAA oxidase

*Alternaria alternata*

(2000)

Eshel



: **Stemphylium botryosum** -2  
(2)

%20 *Stemphylium*  
%33 11 *M. phaseolina* *F.oxysporium*  
. %10, 5, 2.5  
*C. herbarum* *A. flavus*  
(2004) . %  
:  
*Alternaria alternata*  
*A. fumigatus* *Aspergillus nigar*, *Rhizoctonia solani*, *pythium* sp.

:

$$100 \times \frac{\text{---}}{\text{---}} = \%$$

$$100 \times \frac{\text{---}}{\text{---}} = \%$$

.

*Stemphylium botryosum* : 2

.

| %  | %20 | % | %10 | % | %5 | % | %2.5 |   |                                |
|----|-----|---|-----|---|----|---|------|---|--------------------------------|
|    | 9   |   | 9   |   | 9  |   | 9    | 9 | <i>Aspergillus flavus</i>      |
|    | 9   |   | 9   |   | 9  |   | 9    | 9 | <i>Cladosporium herbarum</i>   |
| 11 | 8   |   | 9   |   | 9  |   | 9    | 9 | <i>Fusarium oxysporum</i>      |
| 33 | 6   |   | 9   |   | 9  |   | 9    | 9 | <i>Macrophomina phaseolina</i> |

. 9.0 \*

.

\*



.1999

*Alternaria alternata*

.2004

.1991

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