

(*Hordeum vulgare* L.)

(2011 / 11/ 21 2011/ 9 /25)

(13)

F₁ : (×)

Alternaria alternata : Bc₂ Bc₁ F₂

Cladosporium sp. *Chaetomium sp.* *Aspergillus flavus* *Alternaria raphani*

Rhizoctonia solani *Fusarium spp.* *Candida albicans* *Cylandosporium sp.*

.Penicillium sp. *Staphyllum sp.* *Scytalidium sp.* *Macrophomina phaselonia*

Penicillium sp. *Rhizoctonia solani*

F₂

Diagnostic Study for Companion Fungi on Four Generation Grains of Barely (*Hordeum vulgare* L.)

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ABSTRACT

Thirteen fungal species has been recognized that associated with four generation grains from cross of barley (Beckson × Arivat), different species were reported in four generation grains (F₁, F₂, and back crosses Bc₁ and Bc₂): *Alternaria alternata*, *Alternaria raphani*,

Aspergillus flavus, *Chaetomium sp.*, *Cladosporium sp.*, *Candida albicans*, *Fusarium spp.*, *Rhizoctonia solani*, *Staphyllum sp.*, *Penicillium sp.* . The most frequent fungus in grains of four generations was *Rhizoctonia solani* followed by *Penicillium sp.* , The F₂ generation was the most frequent in species, followed by Bc₁ and Bc₂ finally.

/ 7483 () 43784
 .(2007)
 (1987)

(1991)

100

.(Waines, 1989)

(1996) Abdul Wahab

(23) : (81)

(6) *Ulocladium* (7) *Penicillium* (18) *Aspergillus*

Chaetomium, *Drechslera*, *Curyularia* (5) *Alternaria*

Fusarium, *Cladosporium*, *Mucor*, *Rhizopus*

Alternaria alternate, *Fusarium*

(16) (Malaker and Mian, 2002) *spp.*

. %98 *Alternaria sp.*

Helminthosporium . %58 *Stemphylium sp.*

.....

. %38 *Fusarium sp.* %57
(2007) .(Al – Shebel, 2003)

Alternaria, Fusarium

Fusarium moniliforme, Alternaria, Ulocladium, Aspergillus

. *flavus, A. niger, Rhizopus, Penicillium*

() () (*Hordum vulgare L.*)

F1

F1 P1 F2

F1 P2 Bc₁

Bc₂ Bc₁ F2 .(2001) Bc₂

% 10

(9)

%20 – 15 / 200) Potato Dextrose Agar (PDA)

(3)

(%20 – 15 ° 25

needle

(1983)

(13)

: .(Bc₂ Bc₁ F₂ F₁)

Chaetomium sp. Aspergillus flavus Alternaria raphani Alternaria alternata

Rhizoctonia Fusarium spp. Candida albicans Cylandosporium sp. Cladosporium sp.

.*Penicillium sp. Staphyllium sp. Scytalidium sp. Macrophomina phaselonia solani*

(1) (1)

Penicillium sp. R. solani

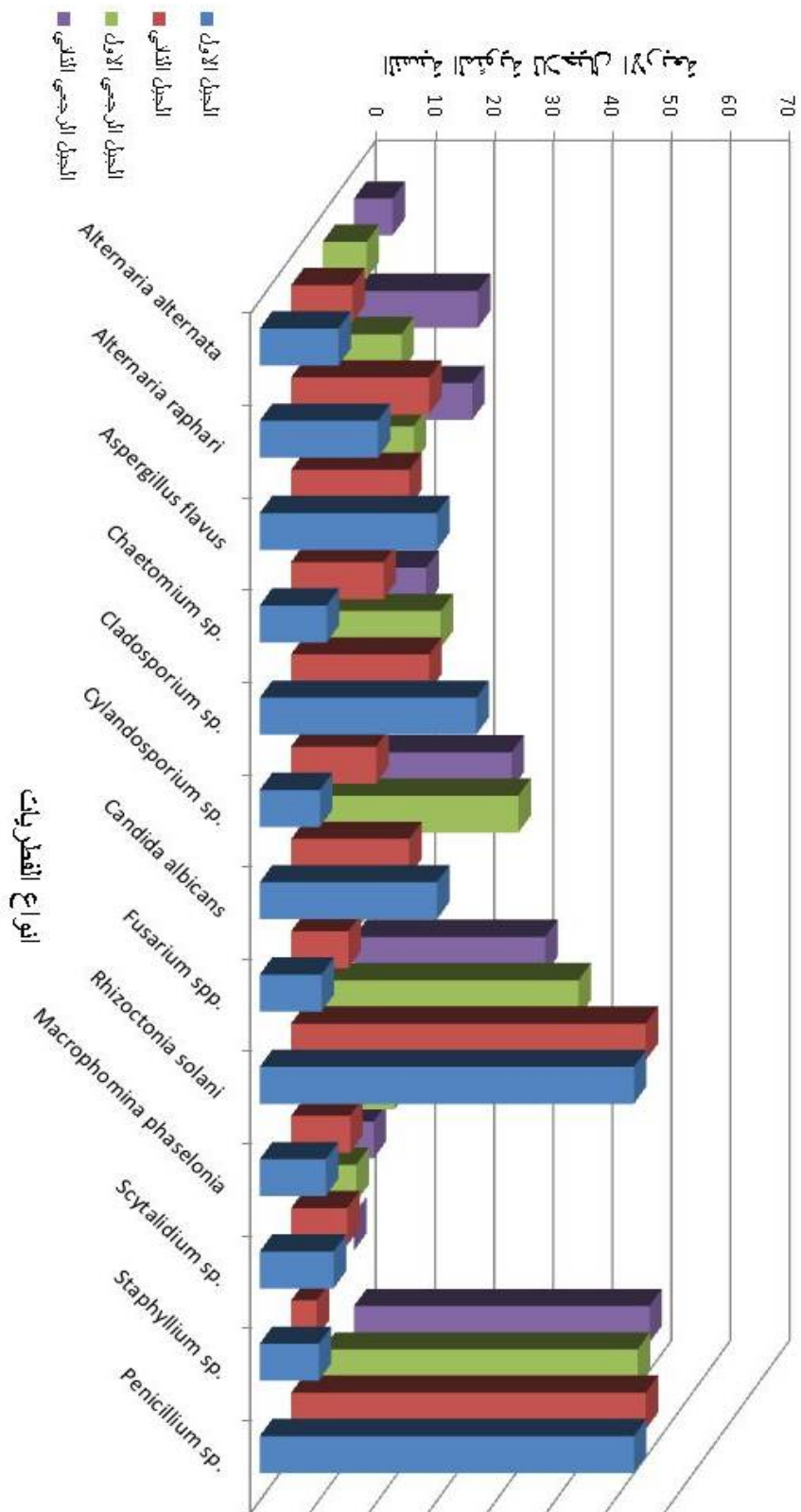
%63.33

.(2007) (Fakhrunnisa, *et al.*, 2006) (Al-Shebel, 2003) (Abdul Wahab, 1996)

:1

%Bc ₂	%Bc ₁	% F2	% F1	
6.54 ed	7.45 d	10.35c	13.33 cd	<i>Alternaria alternata</i>
21 bcd	13.35 cd	23.33 b	20 bcd	<i>Alternaria raphani</i>
20 bcd	15.44 c	20 bc	30 bc	<i>Aspergillus flavus</i>
0 e	5.67d	15.66 bc	11.35 cd	<i>Chaetomium sp.</i>
12.25 cde	20 c	23.37 b	36.66 b	<i>Cladosporium sp.</i>
4.97 e	10 cd	14.40 bc	10.20 cd	<i>Cylandosporium sp.</i>
26.66 bc	33.15 b	20 bc	30 bc	<i>Candida albicans</i>
4.45 e	6.45 d	9.70c	10.47 cd	<i>Fusarium spp.</i>
32.37 b	43.33ab	60 a	63.33 a	<i>Rhizoctonia solani</i>
10 de	12.23 cd	10 bc	11.20 cd	<i>Macrophomina phaselonia</i>
3.33 e	5.72 d	9.50c	12.52 ed	<i>Scytalidium sp.</i>
0 e	0 e	4.33 d	10 cd	<i>Staphyllum sp.</i>
50 a	53.33 a	60 a	63.33 a	<i>Penicillium sp.</i>
14.73	17.39	26.20	24.79	

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شكل (١) النسبة المئوية لأنواع الفطريات المصاحبة لحبوب الشعير في الأجيال الأربعة المستخدمة

و

R. solani

sclerotia

Penicillium sp. .(1981)

(1995)

Fusarium spp. Alternaria alternata .(2005)

Scytalidium sp. Macrophomina phaseolina

%10.35 %13.33

Alternaria alternata

Fusarium %6.54

%7.45

%4.55 %6.45

%9.70

%10.47

%10 (%11.20)

Macrophomina phaseolina

%12.52 *Scytalidium sp.* .(%10) %12.23

%.%3.33

%5.72

%9.5

) (2004) (2000) (Abdul wahab, 1996)

Staphyllum sp. Chaetomium sp. .(2005

Penicillium sp. Rhizoctonia solani

Rhizoctonia solani

F₁

Candida Cladosporium sp.

%63.33

Penicillium sp.

F₂

Aspergillus flavus albicans

Penicillium sp. R. solani

Penicillium sp. R. solani

Bc₁

(Mather and Jinks, 1982) F₂

F₁

()

F₁

F₁

Bc₂

Staphyllum sp.

Bc₂ Bc₁ F₂ F₁

.()

.....

%24.79

.%14.73

(2006)

(2004)

%17.39

()

.(2002)

.(2007)

.(2001)

. Hordinm vulgarel

.(1991)

.187-179 (1)23

Paul Neer .(1995) ()

925

.(2007)

.(1987)

.(2004)

.(

Sorghum Bicolor .(1983)

.(1981)

Bc₂

Gaard

- 334 . (2000)
- .(2005)
- .(2002)
- 91 (3)3 .
- .95
- .(2004)
- .94-89 (4)5 .
- .(2006)
- .189-178 (9)17

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