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(2009 /3 /30 2008 / 2 /23)

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(

(%16) *A .niger*

(%29) *Rhizopus spp.*

Chaetomium spp.

Rhizoctonia spp

Penicillium spp

Trichoderma spp. Fusarium spp.

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(%41) *Rhizopus spp.*

Chaetomium spp.

Alternaria spp.

(%8.5) *Aspergillus spp.*

.Rhizoctonia spp. Pythium spp.

Aspergillus spp.

Emercilla spp.

Teleomorphs

A. terreus A. parasiticus

A. sydowii

Neosartorya spp.

Seed Borne Fungi in some Kinds of Isolation and Identification of Imported Nuts With Special Emphasis to Aflatoxigenic Fungi

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ABSTRACT

Seven fungal genera were isolated from imported nuts seeds of sunflower, watermelon and peanuts which were roasted and prepared for human consumption. The fungus *Rhizopus spp.* had the highest percentage among the isolated fungi (29%) then, *A. niger* (16%) , *Penicillium spp.* and *Rhizoctonia spp.* as well as *Chaetomium spp.* and *Fusarium spp.* which had the lowest percentage. Seed health test of stored seeds of the samples mentioned above, in addition to squash seeds showed that six genera of fungi were present. The genus *Rhizopus spp.* was also isolated with highest percentage (41%) followed by *Aspergillus spp.*(8.5%) then, *Altreteria spp.*, *Chaetomium spp.* lastly *Rhizoctonia spp.* and *Pythium spp.* which isolated with lowest percentage. *Aspergillus* isolates were clearly identified using the differential media, two perfect phases (Teleomorphs) of this genus were found, the first was *Emercilla spp.* Isolated from stored squash seeds, two fungi were also found in the same sample they were *A. parasiticus* and *A. terreus* .The second teleomorphs was *Neosartorya spp.* which was found in stored peanut seeds as well as *A. sydowii*. All the identified *Aspergillus spp.* were found to be non-aflatoxigenic fungi after performing selective media test.

() (1998)
 .(1988)

(Jarvis, 1971)

(1976) Hesseltine (Sinha, 1990)

Field fungi

Seed borne fungi

Storage fungi

Fusarium spp. *Aspergillus spp.*

.*Penicillium spp.*

Aspergillus spp.

(ISTA , 1976)

Slanted-PDA

:

.(CYA) Czapek Yeast Extract Agar -1

.(MEA) Malt Extract Agar -2

.(G25%N) Glycerol 25% Nitrate -3

(37 25 5)

.(Pitt and Hocking, 1997)

Aspergillus Flavus Parasiticus Agar (AFPA)

A. parasiticus *A. flavus*

(Pitt and Hocking , 1997)

Ferric

Aspergillic acid

Bright Orange - Yellow

Ammonium Citrate

(28)

(48 - 24)

A. parasiticus *A. flavus*

Penicillium

(1)

Helianthus annus (Sunflower seeds)

(1988)

%6

spp.

%2 *Cheatomium spp.*

%3 *Rhizoctonia spp.*

(2008)

Tara

(1965) Christensen

Soil Borne Fungi

Alternaria spp.

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Rotting Fungi

Cheatomium spp.

. (Garvis, 1971)

%2

Trichoderma spp.

(2007) Jash Pan

Trichoderma spp.

(1997) Aziz

(Bose *et al.*, 2005)

Rhizoctonia spp.

Rhizoctonia spp.

Trichoderma spp.

%73

Rhizopus spp. ()

(1) %2 *A. niger* %4 *Alternaria spp.*

Rhizopus spp.

Rhizopus spp. (2005) Albina Vita

Penicillium spp. *A. niger* *Alternaria spp.*

:1

*		
%2	<i>Chaetomium spp.</i>	Roasted Seeds
%6	<i>Penicillium spp.</i>	
%2	<i>Rhizoctonia spp.</i>	
%2	<i>Trichderma spp.</i>	
%4	<i>Atrenaria spp.</i>	Stored Seeds
%2	<i>A. niger</i>	
%73	<i>Rhizopus spp.</i>	

*

(Watermelon seeds) *Citrullus lanatus*

%10 %6 *A. niger* (2)
 (1993) Bankole

A. niger

(1998) ()

%4 %2 *Rhizoctonia spp.* *Penicillium spp.*
A. niger

%13 *Aspergillus spp.*

%10 *A. niger*

%3 *Rhizopus spp.*

Aspergillus spp. (2006) Chiejian

Rhizopus spp. *A. niger*

(2006) El-Mahgoub Boughalleb .%2 *Pythium spp.*

Rhizopus spp. *Pythium spp.*

:2

*		
%6	<i>A. niger</i>	Roasted Seeds
%2	<i>Penicillium spp.</i>	
%4	<i>Rhizoctonia spp.</i>	
%3	<i>Aspergillus spp.</i>	Stored Seeds
%10	<i>A. niger</i>	
%2	<i>Pythium spp.</i>	
%3	<i>Rhizopus spp.</i>	

*

(Squash seeds) *Cucurbita pepo*

(3)
 (2005) Albina Vita %43 *Rhizopus spp.*
Rhizopus spp.

%2 *Rhizoctonia spp.*
Fusarium Root rot disease
Rhizoctonia spp. spp.
Rhizoctonia (2007) Nawar .(2000) Celar (1989) Fantino
spp.

%3 *Chaetomium spp.*
Rhizoctonia spp. (1999) Olsen
Chaetomium spp.

(530)

:3

*		
—	<i>No Isolated Fungi</i>	Roasted Seeds
%3	<i>Chaetomium spp.</i>	Stored Seeds
%2	<i>Rhizoctonia spp.</i>	
%43	<i>Rhizopus spp.</i>	

*

(Peanuts seeds) *Arachis hypogaea*

Rhizopus Penicillium spp. Fusarium spp. A. niger (4)
 (%29 %4 %2 %10) *spp.*

(1973) Diener .
 A. (1986) Sanchis
 . *Penicillium spp.* *Fusarium spp.* *Alternaria spp.* *niger*
Penicillium spp. *Fusarium spp.* (1988)
Aspergillus spp.
 (2005) Albina Vita *Rhizopus spp.* *A. niger*
A. niger . *Rhizopus spp.*
Alternaria spp.
 %48 %2 %3 *Rhizopus spp.* *Aspergillus spp.*
 (2000) Mehdi
 Al- *Rhizopus spp.* *Penicillium spp.* *Fusarium spp.*
Alternaria spp. *Aspergillus spp.* (2001) Al-Metwally Wakil
 14 (2004) Rasheed .
 . *Alternaria spp.* *A. niger* *Aspergillus spp.*

:4

*		
%10	<i>A. niger</i>	Roasted Seeds
%2	<i>Fusarium spp.</i>	
%4	<i>Penicillium spp.</i>	
%29	<i>Rhizopus spp.</i>	
%3	<i>Atrenaria spp.</i>	Stored Seeds
%2	<i>Aspergillus spp.</i>	
%2	<i>Chaetomium spp.</i>	
%48	<i>Rhizopus spp.</i>	

*

.....

G25%N MEA CYA

A. *A. parasiticus* (5) *Aspergillus spp.*
 (Teleomorphs) *Emercilla spp. terreus*
 (Chatterjee *et al.*, 1990) %1

A. sydowii *A. parasiticus*
 %1 (Teleomorphs) *Neosartorya spp.*

(AFPA)

Pitt

(1997) Hocking

Bright Orange - Yellow

Aspergillus spp. :5
 (AFPA)

*		<i>Aspergillus spp.</i>
()	()	<i>Aspergillus parasiticus</i>
()	()	<i>Emercilla spp.</i>
()	()	<i>Aspergillus terreus</i>
()	()	<i>Aspergillus sydowii</i>
()	()	<i>Neosartorya spp.</i>

(-) (+) *

Aspergillus spp.

A. parasiticus *A. flavus*

A. niger *Fusarium spp.* (1980) Wicklow
 (1994) Farag

Rhizopus spp. *A. niger* *Alternaria spp.*
A. flavus

. (1998)

.1998

.1988

.2001

()

.(Khapra beetle) *Trogoderma granarium* Everst

.2002

B1

Aspergillus spp.

Trogoderma granarium

. 246-241 : (2) (2)

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