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***Rhizoctonia solani***

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*Rhizoctonia solani*

/ 20 15 10 5

*Trichoderma viride* *Trichoderma harzianum*

% 100

/ 5

% 90.3

*Rhizoctonia solani* :

## The Inhibition Effect for Growth of the Fungus *Rhizoctonia solani* Using Alcoholic Extract for some Plants

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### ABSTRACT

The fungus *Rhizoctonia solani* was isolated from rice, this fungus causes many diseases for plant and crops damage. To control this fungus by a safe method without causing any damage to environment, animal and human, we prefer using the alcoholic extract of some plants. The effect of alcoholic extract for leaves of *Cassia spp.*, *Salvia officinalis* and *Achillea millefolium* was tested by using four concentrations for each extract 5,10,15,20 mg /ml these results were compared with antifungal *Trichoderma harzianum* and *Trichoderma viride* and it was noticed that these extracts have a high inhibiting effect against this fungus. The percentage of inhibition was 100% for all extracts and all concentrations that used in this study except the concentration 5 mg / ml of alcoholic extract for the leaf of *Cassia spp.* the percentage of inhibition was 90.3%. This proves that the alcoholic extract of the leaves has a high ability for inhibition similar to the biocontrol agent that was used.

**Keywords:** *Rhizoctonia solani*, Alcoholic Extract, *Cassia*, *Salvia officinalis*, *Achillea millefolium*.

Hymenomycetes

*Rhizoctonia solani*

(Ceresini, 1999) Ceratobasidaceae

Ceratobasidiales

(1987 )

*Pellicularia filamentosa*

(Keijeri *et al.*, 1997)

(Ceresini, 1999)

Sclerotia

°25-18

.(Harikrishnan and Yang, 2004)

.....*Rhizoctonia solani*

Graminaceae

Cruciferaeae

Solanaceae

Malvaceae

Leguminaceae

%55

(Anon, 2008)

77

(Perl-Traves *et al.*, 2004)

(Moses, 2006 ) ° 32-24

Julis kuhn

(Ceresini,1999) 1858

.( Bobbarala *et al.*, 2009)

*Salvia officinalis*

Dalmation sage Garden sage Sage

( Velickovic *et al.*, 2003 )

900

(Sutton, 2004 )

(Pereira *et al.*, 2004)

Ring worm senna

*Cassia spp*

.(Sutton, 2004)

(Abubaker *et al.*, 2008)

( Abdel Gadir *et al.*, 2006 )

*Achillea millefolium*

( Reeza *et al.*, 2002 )

Yarrow

(Mitich, 1990 )

3000

(Dodson and Dunmire , 2007)

( Tozyo *et al.*, 1994) Antiumor

(Tunon *et al.*,1995 ) Antinflammantory

(Candan *et al.*, 2003) Antioxidant  
(Tajik *et al.*, 2008)

*Rhizoctonia solani*

-1

*Rhizoctonia solani*

(100) (ISTA,1976) International Seed Testing Association

(3-2) %1 (NaOCL)

(2-1)

(PDA) Potato Dextrose Agar

°2± 25

( / 100)

(Parameter and Whitney,1970)

.(Barnett and Hunter, 2006)

-2

*Rizoctonia solani*

Hommgenizer

% 99

Ethanol

° 8-4

2000

(DMSO) Dimethyl sulphoxide

Rotary evaporation

° 64

/

(20 15 10 5)

(2004 ) 15

(MIC)

N1 V1= N2V2

(PDA)

.....*Rhizoctonia solani*

7            6  
7            °2±28

*Trichoderma viride*

*Trichoderma harizanum*

-3

*Rhizoctonia solani*

*Trichoderma*

*Rhizoctonia solani*

9

PDA

*harizanum*

4

4

° 2 ± 25

:

(1982 )

Bell

-1

-2

-3

-4

-5

2

*Rhizoctonia solani*

H

(1987 )

و

(1)

:1

.( ) *R. solani*

	/				
	20	15	10	5	
6.200 A	0.000 C	0.000 C	0.000 C	0.6000 B	<i>Cassia spp</i>
6.200 A	0.000 B	0.000 B	0.000 B	0.000 B	<i>Salvia officinalis</i>
6.200 A	0.000 B	0.000 B	0.000 B	0.000 B	<i>Achillea millefolium</i>

0.05

\*

( )

(2)

/ 5

%100

.(3 2 1 ) % 90.3

:2

**.*R. solani***

	%				
	/				
	20	15	10	5	
0 C	100 A	100 A	100 A	90.3 B	<i>Cassia spp</i>
0 B	100 A	100 A	100 A	100 A	<i>Salvia officinalis</i>
0 B	100 A	100 A	100 A	100 A	<i>Achillea millefolium</i>

0.05

\*

( )

*Rhizoctonia solani*

Velickovic (Nascimento *et al.*, 2000 )

Dulgar (2003)

(2008 ) Hacioglu

*Pencillium Candida species A.niger Alternaria Aspergillus flavus*

*Fusarium moniliforme Fusarium oxysporum frequentans*

*Fusarium* (2009 ) Udomsilp

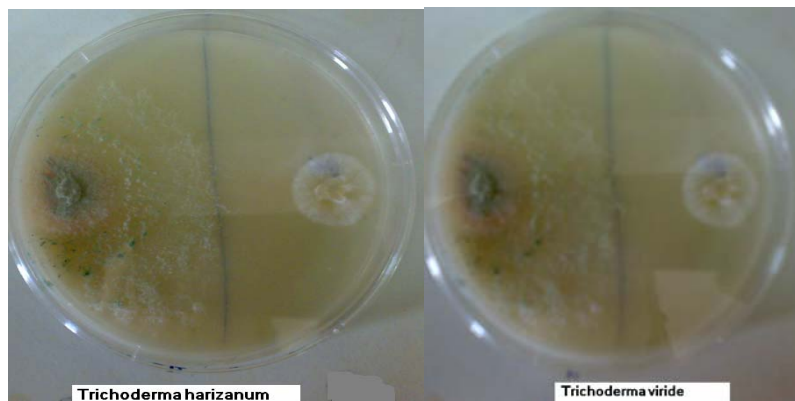
(2008) Tajik *Rhizoctonia solani Fusarium proliferatum moniliforme*

. *Aspergillus*





%94.4 *R.solani* *T.viride* (2008) Mallesh  
 (2010) Montealegre %86.4 *T. harzianum*  
*R.solani* *T. harzianum*



*R.solani* *T.harzianum* *T.viride* :4

" (1987 )

*Thymus spp* . (2004)

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