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(*Zea mays* L. SC. 704)

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*Glomus intraradices* (AM)

*Pseudomonas fluorescens* (Pf)

AM+Pf

Pf AM

AM

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AM+Pf

AM+Pf

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AM+Pf

Pf

AM

AM AM+Pf

AM+Pf

(Kantwa & Meena, 2002)

(Prikryl et al., 1985)

(Nagahashi et al., 1996)

(Sharma, 2002)

(*Phaseolus* (*Triticum astivum* L.)  
(*Brassica napus* L.) *mungo* L.)  
(*Lens culinaris* L.) (*Pisum sativum* L.)  
(*Medicago sativa* L.)  
*Penicillium bilaji*

(Varma & Hock, 1999)  
(1999) Espelta et al.

(Asea & Frankenberger,  
.1988; Kucy, 1987; Kucey & Leggett, 1989)  
(1999) Whitelaw et al.

*Citrus sp.*

*Penicillium radicum*

*Glomus intraradices*

Subramanian &

(1999) Charest

(Salehrastin, 2001)

( )

(Arpana et al.,  
(*Brassica nigra* L.) .2002)

... :

(Gaur et al., 2004; Lucy et al., 2004; Toro et al., 1997)

A (Asea et al., 1988) (*Zea mays* L.)

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... :

) (Imam, 2003)

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(AM) (*Glomus intraradices*)

(AM+Pf)( )

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*Pseudomonas fluorescens strain 93*

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*Glomus intraradices*

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( ) pH = / /

(Somasegaran & Hoben, 1994)

(1982) Kormanik & McGraw

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SAS

(Malakouti & Ghibi, 1998)

LSD

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AM+Pf

AM AM+Pf

AM AM+Pf

Pf (Allen et al., 1974)

(1954) Olsen et al.

Pf

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AM AM+Pf

SPAD

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(A )

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/ a	/ a	/ a	/ a	/ a	+	
/ ab	/ abc	/ abc	/ ab	/ bc	+	
/ ab	/ abcd	/ abcd	/ abc	/ bcd	+	
/ a	/ ab	/ ab	/ ab	/ abc	+	+
/ cd	/ fg	/ fgh	/ de	/ cd	+	
/ bc	/ abcdef	/ bcdef	/ abcde	/ ab	+	
/ ab	/ abcde	/ abcde	/ abcd	/ bcd	+	
/ bc	/ cdefg	/ bcdefg	/ bcde	/ bcd	+	
/ ab	/ abcd	/ abcde	/ abc	/ bc	+	+
/ d	/ fg	/ gh	/ e	/ d	+	
/ cd	/ efg	/ efgh	/ cde	/ abc	+	
/ bcd	/ defg	/ defgh	/ cde	/ bcd	+	
/ cd	/ efg	/ efgh	/ cde	/ bcd	+	
/ bc	/ defg	/ cdefgh	/ bcde	/ bcd	+	+
/ d	/ g	/ h	/ e	/ cd	+	

LSD

AM AM+Pf

AM AM+Pf

(1997) Subramanian et al.

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.(P≤0.05) (AM) (Pf)

AM AM+Pf (P≤0.05) (AM) (Pf)

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.(P≤0.05) )

AM AM+Pf ( )

Pf (A AM AM + Pf

AM + Pf

AM+Pf .( ) AM

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/	/	/	/	/	
**	**	n.s	**	**	
/	/	/	/	/	
/	/	/	/	/	a
**	**	**	**	**	
/	/	/	/	/	x
n.s	n.s	n.s	n.s	n.s	b
/	/	/	/	/	

n.s

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/	/	/	/	
n.s	**	**	**	
/	/	/	/	
/	/	/	/	a
**	**	**	**	
/	/	/	/	x
n.s	**	n.s	**	b
/	/	/	/	

n.s

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AM AM + Pf

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AM+Pf

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Pf AM

AM+Pf

AM

( )

AM+Pf

AM AM+Pf

AM

(Niemira et al., 1995)

Pf

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(Prikryl et al., 1985)

(Azcon et al., 1991)

AM AM+Pf

(Arshad & Frankenberger, 1991)

(Martens & Frankenberger, 1994)

AM AM + Pf

AM + Pf

(1994) Leinhos

( $P \leq 0.05$ )

AM

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1. Asparagine
2. Alanine
3. Lysine
4. Tryptophan aminotransferase

(A )

( )	( )	( )	( )	( )	( )
/ a	/ a	/ a	/ a	/ a	+
/ ab	/ abc	a	/ ab	/ abc	+
/ ab	/ abcd	/ a	/ abc	/ abcd	+
/ ab	/ ab	/ a	/ ab	/ ab	+
/ abcd	/ f	/ a	/ def	/ ef	+
/ abcd	/ abcd	/ a	/ bcdef	/ def	+
/ abcd	/ abcd	/ a	/ abcde	/ cde	+
/ abcd	/ bcd	/ a	/ bcdef	/ def	+
/ abc	/ abcd	/ a	/ abcd	/ abcd	+
/ bcd	/ f	/ a	/ ef	/ ef	+
/ cd	/ ef	/ a	/ ef	/ ef	+
/ abcd	/ de	/ a	/ cdef	/ def	+
/ abcd	/ ef	/ a	/ cdef	/ def	+
/ abcd	/ cde	/ a	/ cdef	/ def	+
/ d	/ f	/ a	/ f	/ f	+

LSD

AM AM + Pf

AM AM+Pf

AM+Pf ( )

Pf

( )

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AM AM + Pf

AM+Pf

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Pf

AM

(Subramanian et al., 1997)

AM+Pf

AM

AM+Pf

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(Boln et al., 1987)

(AM+Pf



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(SPAD Value)					
(A			)		
/ ab	/ ab	/ ab	/ abc	/ abc	+
/ a	/ a	/ a	/ ab	/ ab	+
/ ab	/ abc	/ ab	/ abc	/ abc	+
/ a	/ a	/ a	/ a	/ a	+
/ bcd	/ d	/ de	/ ef	/ cd	+
/ abc	/ bcd	/ bcd	/ abcd	/ abc	+
/ abc	/ bcd	/ bcd	/ abcd	/ abc	+
/ abcd	/ bcd	/ cde	/ bcde	/ abc	+
abc	/ abc	/ abc	/ abc	/ abc	+
/ cd	/ d	/ e	/ ef	/ cd	+
bcd	/ d	/ de	/ def	/ bcd	+
/ abcd	/ cd	/ cde	/ cde	/ abcd	+
/ abcd	/ d	/ de	/ cdef	/ abcd	+
/ abcd	/ bcd	/ cde	/ bcde	/ abc	+
/ d	/ d	/ e	/ f	/ d	+

LSD

(A						)					
( )		(mg/kg)	( )		( )	( )		( )		( )	
/ e	/ d	/ a	/ ab	/ a	/ a	/ a	/ a	/ a	/ a	/ a	+
/ ab	/ b	/ a	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	+
/ bcd	/ cd	/ a	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	+
/ a	/ a	/ a	/ a	/ a	/ a	/ a	/ a	/ a	/ a	/ a	+
/ e	/ f	/ b	/ cde	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	+
/ e	/ e	/ b	/ ab	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	+
/ abc	/ bc	/ a	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	+
/ cde	/ d	/ b	/ ab	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	+
/ abc	/ b	/ a	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	/ ab	+
/ e	/ g	/ b	/ ef	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	+
/ e	/ ef	/ b	/ ef	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	+
/ bcd	/ e	/ b	/ bcd	/ bcd	/ bcd	/ bcd	/ bcd	/ bcd	/ bcd	/ bcd	+
/ cd	/ e	/ b	/ de	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	/ cd	+
/ bcd	/ e	/ b	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	/ bc	+
/ e	/ g	/ b	/ f	/ d	/ d	/ d	/ d	/ d	/ d	/ d	+

LSD

*Glomus fasciculatum*

(1993) Sylvia et al.

(Shaharoon et al., 2006)

ACC

AM+Pf

AMF

Pf

(2006) Roesti et al.

(Subramanian et al., 2006)

AM+Pf  
(P≤0.05)

Pf

AM AM+Pf

AM+Pf

( )

(P≤0.05)

AM AM+Pf

( ) Pf

(Zaidi & Khan, 2005)

(Zaidi & Khan, 2005)

AM+Pf

(Imam, 2003)

( )

AM AM+Pf

(P≤0.05)

AM+Pf

( / )

*Glomus intraradices*  
*Pseudomonas fluorescens*

( )

AM+Pf

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