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(/ / : / / :)

(CIAT)

()

()

(CFU g⁻¹)

CFU g⁻¹

(D)

.(Bhatnagar *et al.* 1982, Jones & Lewis 1993) -

.(Subba Rao *et al.* 1988)

.(Bonnier 1960)

.(Date *et al.* 1975)

Bradyrhizobium japonicum

.(Date 1988)

.(Leiderman *et al.* 1971)

()

(Anonymous 1969)

(Anonymous 1987)

(Anonymous 1981b)

.(Chao & Alexander 1984)

pH

Rhoughly &)

(/ -)

.(Vincent 1967

Roy &)

(Chakrabartty 2000

.(Streeter 2003, Soussi *et al.* 2001)

CYMA YM 79,

Rhizobium spp.

CIAT: Centro Internacional Agri-)

(cultural de Tropical

(Merck)

(Difco)

rpm °C

YMB

()

(-)

(-)

(-)

°C

YMB

YMB

mesh

(Polytene)

°C

°C

pH

(Anonymous 1981a)

(/)

/

°C

YMB

/

YMB

) - /

(- CFU ml⁻¹

/

(CIAT)
OD

(Jensen)

°C

()

%

(

Perkin-Elmer)

/

Propak T
(FID)

(Sigma 30

°C

°C

x

μl

()

()



pH				
6/3(7/0)	246	56/8	79/5	3/8
5/6(4/8)	49	.	37/2	2/4
5/6(5/0)	231	39/3	29/8	21/3
6/0(6/0)	520	100	3/6	-
7/2(-)	628	.	100	-

pH

Jensen

نسبت درصد گرمکها ^۲	تلقیح ریزوبیومی
۶۵(۰)	A
۸۰(۰)	B
۲۰(۲۵)	C
۱۵(۰)	D
۷۵(۵)	E
۷۵(۰)	F
۳۵(۲۵)	G
۴۰(۲۵)	H
۳۳(۱۰)	I
۲۵(۶۰)	J
۳۳(۳۵)	Cs
۶۵(۰)	Pe
۹۰(۵۵)	Pi
۲۵(۱۰)	Ch
۱۰(۴۵)	Ba

-)

.(

l)

(

CFU g⁻¹

J () D
/ * ()
CFU g⁻¹

A

J

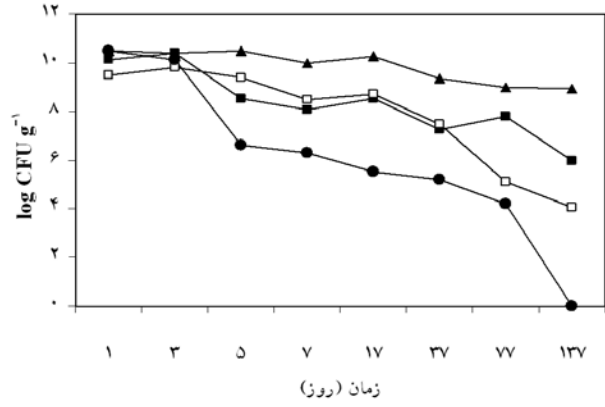
(A)

J

()

CFU g ⁻¹					
()					
×	/ ×	/ ×	/ ×	/ ×	CS ₁
/ ×	×	/ ×	/ ×	/ ×	CS ₀₁
/ ×	/ ×	/ ×	×	/ ×	Ch ₁
/ ×	/ ×	×	/ ×	/ ×	Ch ₀₁
/ ×	/ ×	/ ×	×	/ ×	Pi ₁
/ ×	/ ×	/ ×	/ ×	/ ×	Pi ₀₁
/ ×	/ ×	×	×	/ ×	A ₁
/ ×	/ ×	/ ×	/ ×	×	A ₀₁
×	/ ×	/ ×	/ ×	/ ×	B ₁
/ ×	/ ×	×	×	×	B ₀₁
/ ×	/ ×	×	×	/ ×	C ₁
/ ×	/ ×	/ ×	×	×	C ₀₁
<	/ ×	/ ×	/ ×	/ ×	D ₁
<	/ ×	/ ×	/ ×	×	D ₀₁
/ ×	/ ×	×	/ ×	/ ×	E ₁
/ ×	/ ×	/ ×	/ ×	×	E ₀₁
/ ×	/ ×	/ ×	/ ×	/ ×	Ba ₁
×	/ ×	/ ×	/ ×	×	Ba ₀₁
/ ×	/ ×	/ ×	/ ×	/ ×	Pe ₁
/ ×	/ ×	/ ×	/ ×	×	Pe ₀₁
/ ×	×	/ ×	/ ×	/ ×	F ₁
/ ×	/ ×	×	/ ×	/ ×	F ₀₁
/ ×	/ ×	/ ×	/ ×	/ ×	G ₁
/ ×	/ ×	×	/ ×	/ ×	G ₀₁
/ ×	/ ×	/ ×	/ ×	/ ×	H ₁
/ ×	/ ×	/ ×	/ ×	/ ×	H ₀₁
/ ×	/ ×	/ ×	/ ×	/ ×	I ₁
/ ×	/ ×	/ ×	/ ×	/ ×	I ₀₁
/ ×	/ ×	/ ×	/ ×	/ ×	J ₁
/ ×	/ ×	/ ×	/ ×	/ ×	J ₀₁

(Smith 1991)



(●) (■) (▲)

(□) (○)

/

CFU g⁻¹

CFU g⁻¹

(Michels & Vanderleyden 1994)

Moawad *et al.*)

(*al.* 1998

Cresswell *et al.*)

(Fraser 1975)

(1994, Amient-Carpenteir 1998

pH

pH

- pH
- Roughley 1970, Stridjdom & Deschdot 1976)
(Somasegaran 1985
- Crawford &)
- .(Berryhill 1983
- .(Beck 1991)
- ()
- .(Dube *et al.* 1973)
- .(Dube *et al.* 1980) (Sparrow *et al.* 1983)
- Beck 1991,)
- .(Philipotts 1976
- :
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