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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)

Archive of SID

(/)

°C

YMB

YMB

(- CFU ml⁻¹

(CIAT)
OD

(Jensen)

°C

%

Perkin-Elmer)

Propak T
(FID)

(Sigma 30

°C

°C

x

μl



| pH | | | | |
|----------|-----|------|------|------|
| ۶/۳(۷/۰) | ۲۴۶ | ۵۶/۸ | ۷۹/۵ | ۳/۸ |
| ۵/۶(۴/۸) | ۴۹ | . | ۳۷/۲ | ۲/۴ |
| ۵/۶(۵/۰) | ۲۳۱ | ۳۹/۳ | ۲۹/۸ | ۲۱/۳ |
| ۶/۰(۶/۰) | ۵۲۰ | ۱۰۰ | ۳/۶ | - |
| ۷/۲(-) | ۶۲۸ | . | ۱۰۰ | - |

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 |

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J

A

J

/ *

(

) D

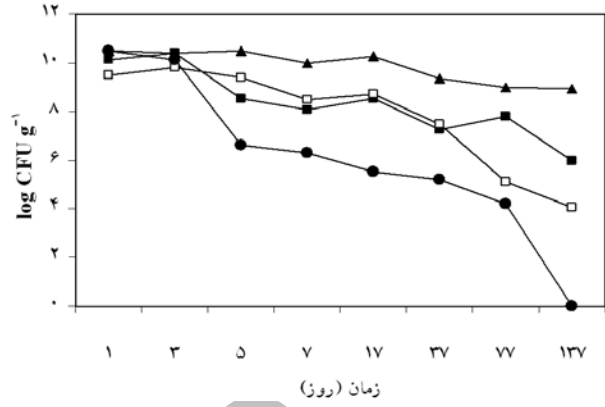
CFU g⁻¹

(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)



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(●) (■) (▲)
(□) (■)

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)
- .(Sparrow *et al.* 1983)
- .(Dube *et al.* 1980)
- Beck 1991,)
- .(Philipotts 1976
- :
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