

()

Meloidogyne javanica

Fusarium oxysporum

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(/ / : / / :)

Fusarium

Meloidogyne javanica

oxysporum

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()

:

Phaseolus

P. vulgaris L.

) ()

(

()

()

F.oxysporum Schlecht

M.

()

() *javanica*

-

Rutgers

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-

Meloidogyne

F.oxysporum

javanica (Treub) Chitwood

()

M. javanica

F. solani *F.oxysporum*

F.oxysporum

()

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- -

()

1. egg mass

....

:

()

()

%

)

(

()

(T₅)

()

(R)

%

$$R = \frac{P_f}{P_i}$$

P_i= initial population , P_f= final population

(T₅)

(T₄, T₃)

(T₂)

(T₁)

(T₆)

(ab)

(T₂)

(T₁)

:()

()

-

(T₄, T₃)

% =

% =

=

()

(b)

(T₅)

% =

% =

% =

%

()

:()

(T₅)

(T₂)

()

-
1. Reproduction factor
 2. Dhawan and Goswami

(T₁) (T₄) %

()

%

(T₃) (T₁) (T₁)

b (T₅) a (T₄, T₃) (T₂)

c (T₄)

T₄ ()

T₄ T₃

% / % / % / T₁ T₅

% / % / % / T₁ %

(T₄) T₁ (T₁)

T₃ T₁ T₅ (T₄) ()

() (%

%

	cm		cm		gr		gr		gr		gr	
	b ₁	b ₂	b ₁	b ₂	b ₁	b ₂	b ₁	b ₂	b ₁	b ₂	b ₁	b ₂
T ₁	/ b	/ b	/ a	/ ab	/ bc	/ bc	/ b	/ b	/ bc	/ b	/ ab	/ ab
T ₂	/ bc	/ bc	/ ab	/ ab	/ b	/ b	/ c	/ b	/ b	/ b	/ bc	/ c
T ₃	/ dc	/ dc	/ c	/ b	/ bc	/ dc	/ b	/ b	/ dc	/ b	/ b	/ c
T ₄	/ bcd	dc	/ c	/ b	/ bc	/ bcd	/ bc	/ b	/ dc	/ b	/ bc	/ c
T ₅	d	/ d	/ bc	/ b	/ c	/ d	/ bc	/ b	/ d	/ b	/ c	/ bc
T ₆	/ a	a	/ a	a	/ a	/ a	/ a	/ a	/ a	/ a	/ a	/ a

=T₅ =T₄ =T₃ =T₂ =T₁
 * =b₂ =b₁ =T₆

()
F.oxysporum f.sp.lentis *M.javanica* *F.oxysporum* *M.javanica*

() .()

.()

(T₃)

.()

(T₅)

(T₁)

(T₃)

(T₅)

(T₄)

(T₃) (T₁)

(T₄)

(T₅)

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)

()

()

()

()

(()

1. Giant cell

....

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/

(T₄)

()

.()

()

F. oxysporum f. sp.

.()

M.

phaseoli

F. oxysporum

javanica

)

F.oxysporum

(

M.incognita

.()

.()

)

F.oxysporum

(

.()

.()

()

F. oxysporum f.sp. *phaseoli*

M. incognita

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