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Meloidogyne javanica
Fusarium oxysporum f.sp. lycopersici

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(// : // :)

Meloidogyne javanica
Fusarium oxysporum f.sp. lycopersici

(Roma VF)

()

) ()
(

()

:

() .()

(PAL)

(POX)

(PPO)

:

()

() .()

()

M. incognita

() .()

.()

(HPRG)

(,)

(HGRG)

()

()

(,)

()

TMV

()

Meloidogyne incognita

() .()

Radopholus similis

()

.()

M. incognita

...

Dopamine (3-hydroxytyramine)

() .()

Dopamine

.()

(

(SAR Signaling)

.()

()

() *Puccinia hordei*

M. javanica

.()

)

(*Meloidogyne javanica*

(*Fusarium oxysporum* f.sp. *lycopersici*

Roma VF ()

Roma VF

(

()

() ()

(

±

(Total phenol)

()

:

(

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:

:

:

:

:

()

spss

excel

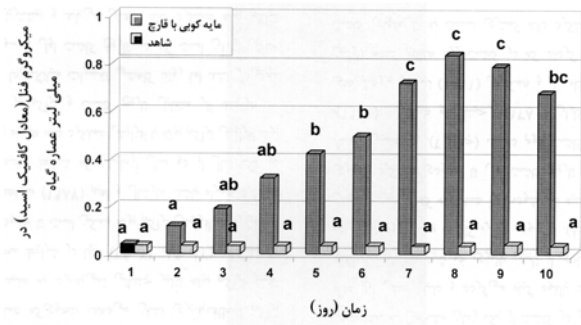
(uv-visible shimadzu)

λ max = nm

(c)

()

(a)



Roma VF

F. oxysporum f.sp. *lycopersici*

%

pH=2

(v/v)

× g

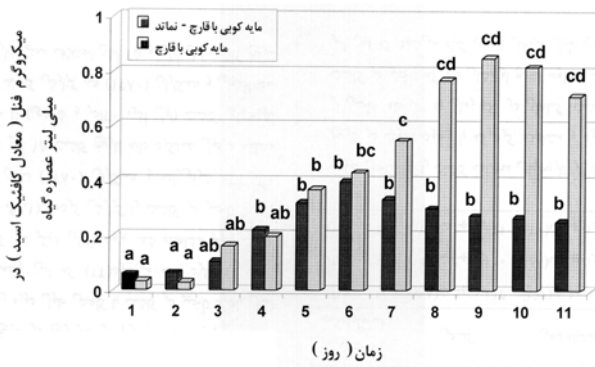
)

(

()

(b)

()

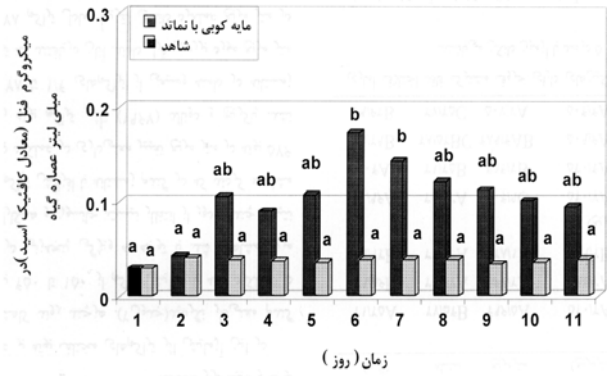


Roma VF

F. oxysporum f.sp. *lycopersici*

M. javanica

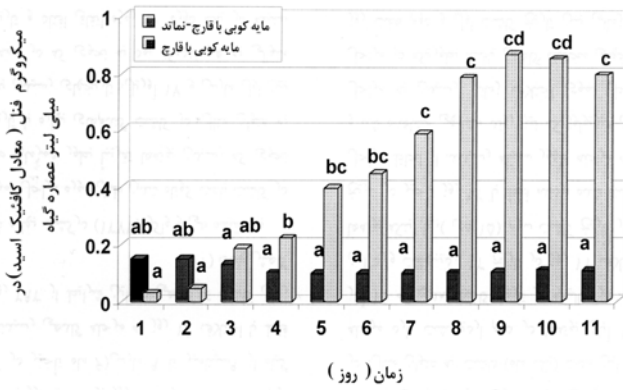
%



Roma VF

M. javanica

%



Roma VF

F. oxysporum f.sp. *lycopersici*

M. javanica

%

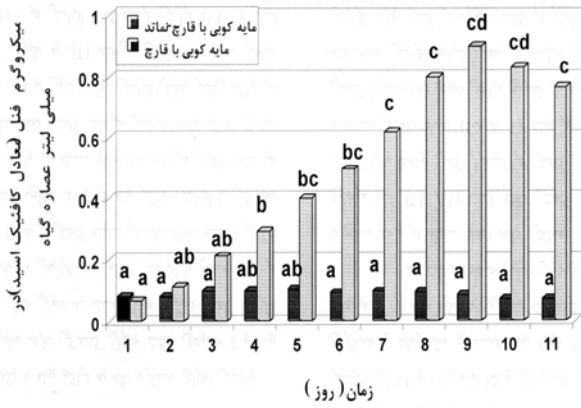
d

b

()

Roma VF

M. javanica



Roma VF

F. oxysporum f.sp. *lycopersici*

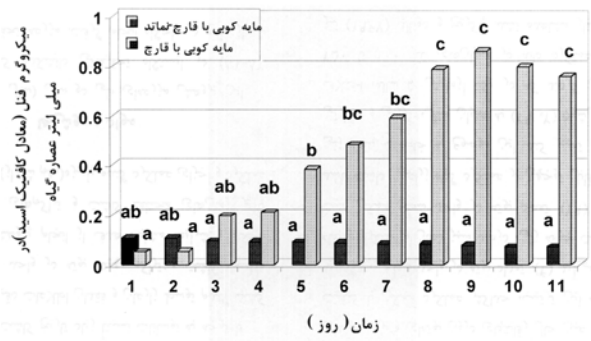
M. javanica

%

(a)

(c)

()



Roma VF

F. oxysporum f.sp. *lycopersici*

M. javanica

%

(cd)

(a)

()

Roma VF

()

()

()

()

)

(

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Fusarium oxysporum f.sp. *lycopersici*

Meloidogyne javanica

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