

( )

*Beauveria bassiana*

*Metarhizium anisopliae*

*Chilo suppressalis* Walker (Lep., Pyralidae)

( // : // : )

(SSB)

( )

SDAY PDA

*Metarhizium* *Beauveria bassiana* (Bals.) Vuill.

*anisopliae* (Metsch.) Sorok,

( / × )

*B.bassiana*

*M.anisopliae*

( / × )

×

/ / *B.bassiana*

/ / *M.anisopliae*

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( )

(*Chilo suppressalis*)

*B. bassiana*

*Paecilomyces*

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*farinosus*

( )

*B. bassiana*

( )

*M. M. flavoviride*

( )

*B. bassiana Hirsutella spp anisopliae*

*B. Bassiana*

*spp. Penicillium sp.*

*B. bassiana*

( )

*Fusarium sp. Aspergillus*

*B. bassiana*

( )

*Metarhizium B. bassiana,*

( )

*Fusarium oxysporum anisopliae*

*M.*

( )

*anisoplia*

*Chilo auricilius , C.*

*Sesamia inferens infuscatellus*

1

5

4

3

2

( )

(*C. partellus*)

*M. brunneum M. anisopliae B. bassiana*

*A. A. orgzae A. fumigatus Aspergillus flavus*

*A. candidus A. bisporus tamaritii*

( )

( )

( )

*B.*

(*C. partellus*)

*bassiana*

( )

*B.*

*Entomophthora sp. M. anisopliae, bassiana*

*M. anisopliae*

1. Boverin

2. Botanicgard

3. Naturalis

4. Mycotrol

5. Metaquino

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/ 2

/ x/

SDAY<sup>4</sup> PDA<sup>3</sup>

±

±

5

C

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%

SDAY ±

SDAY ±

±

6

x

1

7 (CRD)

- 
- 2. Water agar
  - 3. Potato agar glucose
  - 4. Sabouraud dextrose agar
  - 5. Colony
  - 6. Haemocytometer
  - 7. Completely randomized design

- 
- X
  - 1. Single Spore

*B. bassiana*

SDAY

1

( )

( )

*B. bassiana*

( )

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*B. bassiana*

±

( / × )

( )

( )<sup>2</sup>

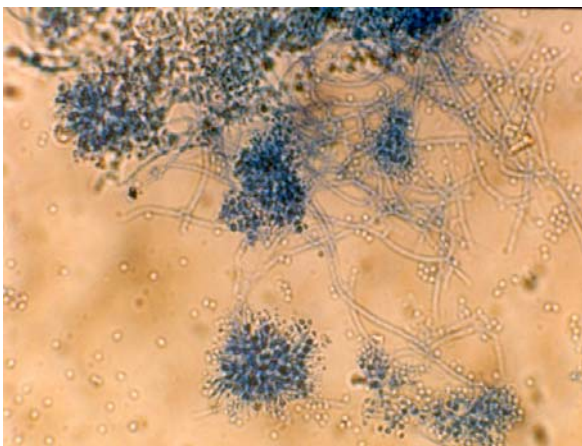
P < %

T-test



SDAY

*B. bassiana*



*B. bassiana*

X

*B. bassiana*

*M. anisopliae*

( ) ( ) ( )

*M. anisopliae* *B. bassiana* (Bals.) Vuill.  
(Metsch.) Sorok.

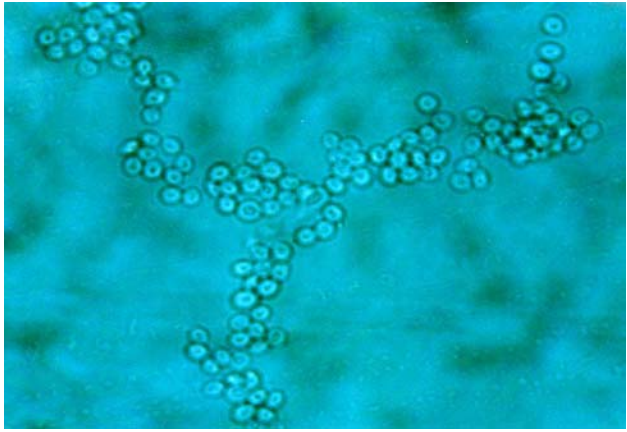
- 
1. Tween 80
  2. Abbott's formula

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*B. bassiana*



*B. bassiana*

X

=C

= C-T / C ×  
=T

B.

*bassiana*

( )

*B. bassiana*

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B

*.bassiana*

*M. anisopliae*  
SDAY

*B.bassiana*

( )

( )

*B.bassiana*

( × / / )

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( / / )

( )

( × / )

( )

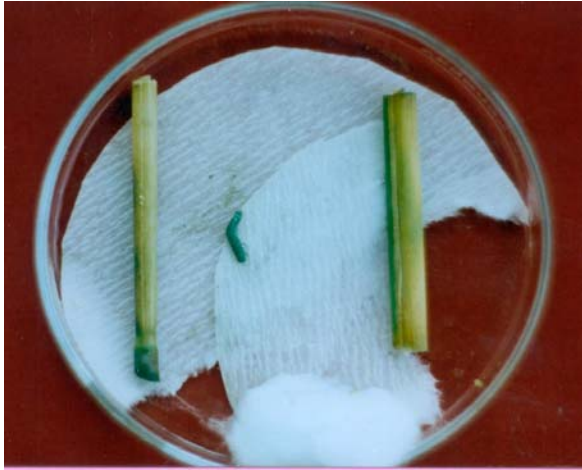
*B.bassiana* A,B,C,D

/ /

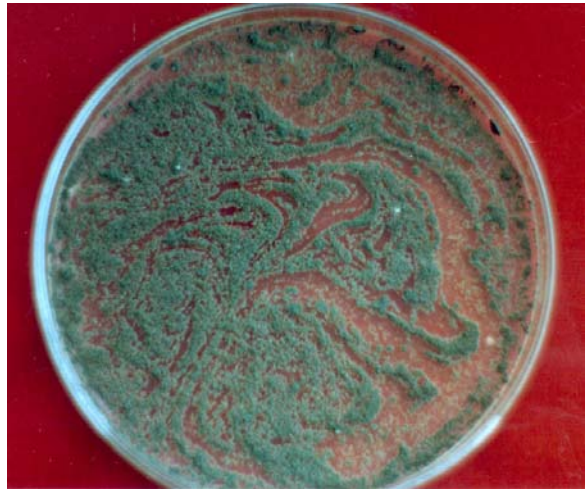
<sup>1</sup>PAG

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*M. anisopliae*



*M. anisopliae*  
SDAY

1

( )

*M. anisopliae*

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( )

*M. anisopliae*

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( )

( | | x |

*M. anisopliae*

( ) ( )

( | x )

*M. anisopliae*

( | )



*M. anisopliae*

X

*M. anisopliae*

*M. anisopliae* *B. bassiana*

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/	/	/ a	<i>B. bassiana</i>
/	/	/ a	<i>M. anisopliae</i>
		/ b	Control

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P < %

*B. bassiana* ( ) P < %  
A,B,C,D

*M. anisopliae* *B. bassiana*

E B, A /  
/ / / / a /  
F b

(*Chilo partellus*)

*M. B. bassiana*

*Pyralidae*

/ / . *anisopliae*

*M. B. bassiana*

*anisopliae*

( )

*B. bassiana*

( )

× *M. anisopliae*

*B. bassiana*

( )

× (*C. suppressalis*)

*B. bassiana*

(*C. partellus*)

( )

*Busseola fusca*

*M. anisopliae*

/ /

*M. B. bassiana*

*anisopliae*

*B. bassiana*

( )

/

IPM

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*Naranga*

*aenescens* Moor (Lep.: Noctuidae)

( )

( *Chilo suppressalis* Walker )

(*Chilo suppressalis* Walker)

*Beauveria bassiana*

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