

!" #&/
4;O <548G=>3> 70AB>AC20==O ;V:0@AL:>3> 70A>1C
" -"\$
(CLOTRIMAZOLUM-PHYTOPHARM)

!,:04:

4VNG0 @5G>28=0: clotrimazole;

1 3 <07V B@8<07>;C 10 <3;

4>?>28=8: ?@>?V;5=3;V:>;L, ?>;V5B8;5=3;V:>;L (<0:@>3>;) 400, ?>;V5B8;5=3;V:>;L (<0:@>3>;) 1500,
?>;V5B8;5=3;V:>;L (<0:@>3>;) 4000, ?@>:A0=>;-268, 48=0B@VN 545B0B (B@8;>=), A?8@B
F5B>AB50@8;>289, ?>;V5B8;5=3;V:>;N (<0:@>3>;C) F5B>AB50@8;>289 5DV@, 2>40 >G8I5=0.

V:0@AL:0 D>@<0. 07L 1%.

A=>2=V DV78:>-EVABV: <07L 1V;>3> :>;L>@C.

\$0@<0:>B5@0?52B8G=0 3@C?0.

@>B83@81:>2V 70A>18 4;O 3> 70AB>AC20==O.

>4 "% D01A !01.

\$0@<0:>;>3VG=V 2;0AB82>ABV.

\$0@<0:>48=0

5E0=V7< 0=B8B8G=>W 4VW ;;>B@8<07>;C ?>2O70=89 7 ?@83=VG5==O< A8=B57C 5@3>AB5@>;C, I>
?@872>48BL 4> AB@C:BC@=>3> B0 DC=:FV>=0;L=>3> ?>H:>465==O F8B>?;07<0B8G=>W <5<1@0=8.

;>B@8<07>; <0T H8@>;89 A?5:B@ 0=B8B8G=>W 0:B82=>ABV in vitro B0 in vivo B0 4VT =0 45@

<0B>DVB8, 4@V646>2V, ?;VA=O2V B0 48>@D=V 3@81:8.

@8 2V4?>2V4=8E C<>20E B5ABC20==O

5E0=V7< 4VW ;;>B@8<07>;C ?>2O70=89 7 ?5@28==>N DC=3VAB0B8G=>N 01> DC=3VF84=>N

0:B82=VABN, 70;56=> 2V4 :=F5=B@0FVW ;;>B@8<07>;C C

In vitro 0:B82=VABL >1<565=0 5;5<5=B0<8 3@81:0, I> ?@>;VD5@CNBL; A?>@8 3@81:0 <0NBL ;8H5
=57=0G=C GCB;82VABL.

>40B:>2> 4> 0=B8B8G=>W 0:B82=>ABV ;;>B@8<07>; B0:>6 4VT =0 3@078B82=V >@30=V7<8

(AB@5?B>:>:8, AB0DV;>:>:8, *Gardnerella vaginalis*) B0 3@0<=530B82=V >@30=V7<8 (*Bacteroid5s*).

In vitro ;;>B@8<07>; ?@83=VGCT @>7<=>65==O *Corynebacteria* B0 3@078B82=8E :>:V2 (70 28=OB:><
Enterococci) C :=F5=B@0FVW 0,5-10

5@28==> @578AB5=B=V HB0<8 GCB;828E 284V2 3@81:V2 7CAB@VG0NBLAO @V4:>. >728B>:

2B>@8==>W @578AB5=B=>ABV ?@8 ;V:C20==V C GCB;828E 3@81:V2 4>B5?5@ A?>AB5@V302AO

4C65 @V4:>. >;V=VG=V 4>A;V465==O, I> ?@>2>48;8 70 CG0ABN 4>1@>2>;LFV2 V7 70AB>AC20==O

< >4=>@07>2>W B0 ?>2B>@=>W B>:A8G=>W 4>78, =5 28O28;8 ?>H:>46C20;L=>3> B>:A8G=>3>,

35=>B>:A8G=>3> 2?;82C B0 2?;82C =0 @5?@>4C:B82=VABL.

\$0@<0:>:V=5B8:0.

>A;V465==O D0@<0:>:V=5B8:8 ?>:070;8, I> 2A<>:BC20==O ;;>B@8<07>;C =57=0G=5, < 2 B0

3-10 % 70AB>A>20=>W 4>78 7 ?V:< ?;07<>2>W :=F5=B@0FVW 4VNG>W @5G>28=8 < 10 =3/<;. "0:8<

G8=>< 28=8:=5==O ?>1VG=>W 4VW 01> A8AB5<=8E 5D5:BV2 T <0;>9<>2V@=8

;V=VG=V E0@0:B5@8AB8:8.

>:070==O.

@81:>2V V=D5:FVW H:V@8, A?@8G8=5=V 45@<0B>DVB0<8, 4@V646>28<8 B0 ?;VA=O28<8 3@81:0<8
B0 V=H8<8 71C4=8:0<8, GCB;828<8 4> ;;>B@8<07>;C.

=D5:FVW H:V@8, A?@8G8=5=V *Malassezia furfur* (@V7=>10@2=89 ;8H09) B0 *Corynebacterium*
minutissimum (5@8B@07<0).

=D5:FVW AB0B528E 3C1 B0 AC: C 6V=>: (:0=484>7=89 2C;L2VB), 0 B0:>6 70?0;5==O 3>;>2:8

AB0B52>3> G;5=0 B0 :@09=L>W ?;>BV AB0B52>3> ?0@B=5@0, A?@8G8=5=5 4@V646>28<8 3@81:0<8

(:0=484>7=89 10;0=VB).

@>B8?>:070==O.

@5?0@0B=5 A;V4 70AB>A>2C20B8 C 28?04:0E 3V?5@GCB;82>ABV 4> ;;>B@8<07>;C, A?8@BC
F5B>AB50@8;>2>3> 01> 4> 1C4L-O:8E V=H8E :>=5=BV2 ?@5?0@0BC.
5 70AB>A>2C20B8 4;O ;V:C20==O =V3BV2 01> V=D5:FV9 H:V@8 3>;>28.

70T<>4VO 7 V=H8<8 ;V:0@AL:8<8 70A>10<8 B0 V=HV 2848 270T<>4V9.

>B@8<07>; <65 ?@83=VGC20B8 4VN V=H8E B8G=8E ?@5?0@0BV2, >A>1;82> ?>;V5=>28E
0=B81V>B8:V2 (0B5@8F8= , =VAB0B8=, =0B0B8G=0 4VO :;>B@8<07>;C ?@83=VGCTBLAO 28A>:8<8
4>70<8 45:A0<5B07>=C B0 ?>A8;NTBLAO

A>1;82>ABV 70AB>AC20==O.

?>289 A?8@B <>65 A?@8G8=OB8 ;>:0;L=5 ?>4@07=5==O H:V@8 (=0?@8:;04, :>=B0:B=89 45@<0B8B).
@>?V;5=3;V:>;L<>65 A?@8G8=8B8 ?>4@07=5==O H:V@8. # B0:8E 28?04:0E @5:><5=4CTBLAO
70AB>A>2C20B8 V=HV ;V:0@AL:V D>@<8 ?@5?0@0BC, I> =5 3> :>=5=B0.

07L ?@87=0G5=0 ;8H5 4;O 7>2=VH=L>3> 70AB>AC20==O =0 H:V@C.

!;V4 C=8:0B8 ?>B@0?;O==O <07V 2 >GV. 5 :>2B0B8.

/:I> G5@57 4 B86=V ?VA;O ?>G0B:C ;V:C20==O =5 2V47=0G5=> ;V=VG=>3> ?>:@0I0==O, =5>1EV4=>
725@=CB8AO 4> ;V:0@O B0 ?V4B25@48B8 4V03=>7 1V>;>3VG=8< <5B>4>< V 28;;NG8B8 V=HC
?@8G8=C 70E2>@N20==O.

@8 >4=>G0A=>AC20==V ?@5?0@0BC 7 ;0B5:A=8<8 ?@>4C:B0<8 (?@8 70AB>AC20==V <07V 2
4V;O=FV 35=VB0;V9) (=0?@8:;04, ?@575@20B820<8 B0 4V0D@03<0<8) DC=:FV>=0;L=0 740B=VABL
>AB0==VE <>65 7=86C20B8AO G5@57 4>?>28=8, I>

:070=89 5D5:B T B828< V <>65 28=8:0B8 BV;L:8 ?V4 G0A ;V:C20==O.

V4 G0A 70AB>AC20==O FL>3> ?@5?0@0BC A;V4 C=8:0B8 AB0B528E :>=B0:BV2, >A:V;L:8 V=D5:FVO
<>65 ?5@540B8AO ?0@B=5@C.

%2>@><5=4CTBLAO ?@>:=AC;LBC20B8AO 7 ;V:0@5ABV 4> 1C4L-O:8E ?@>B83@81:>28E 70A>1V2
01> ?>EV4=8E V;C; C @07V =002=>ABV 25=5@8G=8E 70E2>@N20=L 2 0=0<=57V E2>@>3> 01> 9>3>
AB0B52>3> ?0@B=5@0; O:I> C E2>@>3> 28A>:0 B5 28I5), 1V;L C =86=V9 G0AB8=V 682>B0, 487C@VO,
1V;L C A?8=V, 3=V9=V 203V=0;L=V 284V;5==O 7 =5?@8T=8< 70?0E><, 28@07:8 2C;L28 B0
203V=0;L=V 28@07:8, ?>G5@2>=V==O, 4V0@5O, =C4>B0, 1;N20==O, 203V=0;L=0 :@>2>B5G0, I>
AC?@>2>46CTBLAO 1>;5

>?5@5465==O I>4> ;V:C20==O :0=484>7=>3> 2C;L2VBC C 6V=>: . @>BO3>< <5=AB@C0FVW
;V:C20==O ?@>2>48B8 =5 A;V4. V:C20==O A;V4 70:V=G8B8 4> ?>G0B:C<5=AB@C0FVW.

5 28:>@8AB>2C20B8 B0=8, V=B@0203V=0;L=V 7@>H5==O, A?5@ V=HV 203V=0;L=V ?@>4C:B8 ?V4
G0A 70AB>AC20==O FL>3> ?@5?0@0BC.

0AB>AC20==O C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N.

;V=VG=8E 4>A;V465=L I>4> 2?;82C :;>B@8<07>;C =0 D5@B8;L=VABL C 6V=>: =5 ?@>2>48;8, ?@>B5
4>A;V465==O =0 B20@8=0E =5 28O28;8 2?;82C :;>B@8<07>;C =0 D5@B8;L=VABL.

V;L:VABL 4>A;V465=L V7 70AB>AC20==O< :;>B@8<07>;C C ?5@V>4 203VB=>ABV >1<565=0.

>A;V465==O =0 B20@8=0E =5 28O28;8 ?@O<>3> 01> =5?@O<>3> H:V4;82>3> 2?;82C 7 B>G:8 7>@C
@5?@>4C:B82=>W B>:A8G=>ABV. /: ?>?5@546C20;L=89 70EV4, 1060=> C=8:0B8 70AB>AC20==O
:;>B@8<07>;C 2?@>4>26 B@8<5AB@C 203VB=>ABV.

0 ?5@V>4 ;V:C20==O :;>B@8<07>;< A;V4 ?@8?8=8B8 3>4C20==O 3@C44N. 5 70AB>A>2C20B8 <07L C
4V;O=FV <>;>G=8E 70;>7 ?@>BO3>< CAL>3> ?5@V>4C 3>4C20==O 3@C44N.

40B=VABL 2?;820B8 =0 H284:VABL @50:FVW ?@8 :5@C20==V 02B>B@0=A?>@B< 01> 7 V=H8<8
<5E0=V7<0<8. 5 2?;820T.

!>>AV1 70AB>AC20==O B0 4>78.

07L 70AB>A>2C20B8 4>@>A;8=:8< H0@>< =0 C@065=C 4V;O=:C H:V@8 B0 ?@8;53;V 4V;O=:8 V
>15@56=> 2B8@0B8.

@8 :0=484>7=> :0=484>7=>@>A;8< A 2-3 @078 =0 4>1C =0=>A8B8 B>=:8< H0@>< =0 C@065=V 4V;O=:8 (7>2=VH=V AB0B52V >@30=8 V ?@>., 01> 3>;>2:C G;5=0 V :@09=N ?;>BL C G>;>2V:V2) B0 2B8@0B8.

"5@0?VO :0=484>7=>3> 2C;L2VBC 01> :0=484>7=>3> 10;0=VBC 28<030T >4=>G0A=>3> ;V:C20==O >1>E ?0@B=5@V2

"@820;VABL B5@0?VW:

?@8 5@8B@07

?@8 45@<0B>70E 3-4 B86=V,

?@8 @V7=>10@2=>

?@8 :0=484>7=>7=>

0;56=> 2V4 E0@0:B5@C B0 BO6:>ABV 70E2>@N20==O ;V:0@ <>65 ?@87=0G8B8 V=482V4C0;L=89 @568< 4>7C20==O B0 A?>AV1 70AB>AC20==O ?@5?0@0BC, 0 B0:>6 B@820;VABL ;V:C20==O. 5@54 70AB>AC20==O< ?@5?0@0BC AB>?8 A;V4 ?<8B8 B5?;>N 2>4>N 7 <8;><, <07L @5B5;L=> 2B8@0B8, >A>1;82>

V B8. >A2V4 70AB>AC20==O ?@5?0@0BC 4VBO< 2V4ACB=V9.

5@54>7C20==O.

>4=>3> @878:C 3>AB@>W V=B>:A8:0FVW =5<0T, >A:V;L:8<0;>9<>2V@=>, I> ?5@54>7C20==O <>6;825 ?VA;O @07>2>W 203V=0;L=>W 4>78 01> =0=5A5==O =0 H:V@C (70AB>AC20==O =0 25;8:8E 4V;O=:0E H:V@8 ?@8 C<>20E, I> A?@8ONBL ?V428I5=> @8 28?04:>2>@0;L=>AC20==V @V4:> <>65 28=8:=CB8 ?>B@510 C ?@>2545==V ?@><820==O H;C=:0, O:I> 4>70, O:0 703@>6CT 68BBN, 1C40 70AB>A>20=0 2?@>4>26 ?>?5@54=L>W 3>48=8 01> O:I> =0O2=V 2848

>1VG=V @50:FVW.

##?@>4>26 70AB>AC20==O ?@5?0@0BC <>6CBL B@0?;OB8AO =0ABC?=V ?>1VG=V 5D5:B8: - 7 1>:C VW A8AB5<8: 0;5@3VG=V @50:FVW, 2;;NG0NG8 =5?@8B<=VABL, 0@B5@V0;L=C 3V?>B5=7VN, 7048H:C, :@>?82O=:C; - 7 1>:C H:V@8 B0 ?V4H:V@=>W ;;VB:>28=8: ?>G5@2>=V==O (5@8B5<0), ?CE8@V, =574C60==O, 48A:>@B/1V;L, =01@O., ?>4@07=5==O, ;CI5==O, A25@1V6, 28A8?0==O, ?>:>;N20==O, ?5GV==O /2V4GCBBO 60@C. @8 ?V428I5=V9 GCB;82>ABV 4> F5B>AB50@8;>2>3> A?8@BC <>6CBL 28=8:0B8 0;5@3VG=V @50:FVW =0 H:V@V 01> =0 A;87>2V9 >1>;>=FV.

"5@ABV.2 @>:8.

#<>28 715@V30==O.

15@V30B8 2>@83V=0;L=V9 C?0:>2FV, ?@8 B5>!. 5 70<>@>6C20B8. 15@V30B8 C =54>ABC?=>

#?0:>2:0.

> 15 3 01> 25 3 C BC10E; 1 BC10 C ?0GFV.

0B53>@VO 2V4?CA:C.

57 @5F5?B0.

8@>1=8:.

" «\$VB>D0@<».

VAF57=0E>465==O 28@>1=8:0 B0 9>3> 04@5A020465==O 4VO;L=>ABV.

#:@0W=0, 84500, >=5FL:0 >1;.,