

”وَعَلَى اللَّهِ قَصْدُ السَّبِيلِ وَمِنْهَا جَانِبٌ

وَأَوْ شَاءَ لَهْدَاكُمْ أَجْمَعِينَ“

(سورة النحل آية 9)

• الحمد لله الذي هدانا لهذا

وما كنا لنهتدي لولا أن هدانا الله“



A
A
A

a

9

0

4

4

4

2

0
0
0

Arabic

0

Summary

0

0

0

0

0

0

0

0

0

0

0

0

0

9

9

العربي

4.54, j1 cy•kiLL.1

Lr**a**_d**tfilj**₄₅**4)41** i.14,12.%11 &LC; _{4.5.4:ra})A **cfr**
1,011 **gt.t****hci** J.4.4a11 jz..i **Lig**

⁴J4. *Apis mellifera* L. L.r4 **j** okpi
dz.1 ¹4 c5Lt11 :t43 3..1...11 Lr.k, **S** **AlAt** (PaL& 0.GAI _).4S
J194..o**i** 3.11111 Lill C...1.4a.01 ja.0.4 all .ill
tAA j c oyD,a11 s.14.1,1 **e.k, J.44 LLNiii**
ji...oa⁴Y1 **E** (CLA.1.4 — JJ.Sa — C:tT.L.±3)

AFB (₅**4**)41 Cj.,12,1 9Aj 0:2.)⁻⁴¹
r,A x •, 0 **j**..1.31

4-Y-Li D-4 ¹..".A LS4 41..)

11 4.)&.1=1

L511111,13 A1,641.14.4.11 Lc **lr-4**.1111 L5 **ll1 jr.111**

h : 171.31.A e;11 _≠D or _ 1 A)

L3¹ _):¹&) Ls¹ S..).¹²¹¹¹ Lti³ SJ"D . ^"¹

(53₃1 **ll** e_t.1171) Ljac.L:01114 L11.3k. **Ai**_j.111

___ L..11 li.11___c51 9_3 Li...413,494..**I** }**Ai**

₁Y..1 **ll**i.);111 4.413.1.1/14 YI (31N:1 „la J.A....:11

2.11 **tL**) ;i4,3Lts ;LIS ;14,)11 **c** :**:-11** Dgali c^{31.111}

LD-4 J=⁶⁴¹ ‘ ¹¹⁵.13-4 "L⁹¹--4
a9JAI c⁴J &114.3 , c;)c2**j**..411 I 1 O J\$ o o Z.ZULS syi o J A aut.11 e"₁₁
la—ll s.A3 j4⁸ **4**₊₃
a.)11.31 **j**,0
14.3LAI **j** 1.14-11.4___>413 (**sic**. **SLao**
734.0.4 all **c**_y^a ak**I** o₁lik4
⁴¹¹6.¹ L3 9..^{32.11} J. ^{L.11} **J**^{1=tl} **J4**^{1 ml1} **J**^t.5¹¹¹ C.J.° JA.¹¹⁻¹ DA ^{o611}
ki..+1.1 a+ü¹ tLi ..)411 c;Alz.11 143.,1 o 0J.11-6 **kji-4.424,1 44.+ALL.411**
5(1,42.11 cj.k. VI o2,1 **j**c.SPI)a...1.1111
g__ **lll** (y1_&:L371 .3 **j** **s**₁1 A..41.a.1 j.k2

7Le-,31 J₉**IJS** tu,;033.411 j1.14 L₃a ojuL4A**J** JS:? 1 ji!IS
(;)94¹⁴L411₋},,,ll 61..4 4S.I.L¹,11,,);_i 4.4 0,-.1²lll .11,4 6331 c kilAT;
ll 4<l-l1l1 u₃431 0,41_g4 ji4114 .91c.
_la L_y.k² all S4..2.41 lD l
;-)-4 (cL¹ Y-aa⁻¹) a_.>^o.&³¹ j..9.1²31 C.9-C:1
'1 0' 4,5.41.12.i. **1 • .** y.11

t1_i.31 _____ **EFB u_49** _____ O.11.201 uk)...A.11
' ,V • , ° L, jj Lit-C⁻¹¹) l
L4N. LEA, c1-4 ll *44 43,411,J1 audl L_{si}:6)411 sat!, **sill**
_____ ;Lisa_____ur_i_____ Oi.41144 u_Ai
14.1 9,4 3414 1+11:16 o S oi.w :Li J411
l4.x~~X~~ll _____ L_illll eiAli **J.4**.111 u:n.4V1 c6I j.3 jarj
(L_ rill) _____-411 .314431 ."4.40 L,,lc. 1AA S1415i4.11
LIA.9 Zoax-C 1),97.12.11 J-3⁵ 0¹.3.117¹ 4J., L_{ss} 49 y il ³9.⁴³9 **CY**;=⁹94 **Lei**
4.6¹ 1 4-k5¹ (-1.9.N:1/4) **9 J4¹¹ Ciimal JJJA⁻¹.9**
s **j i**sla s Leca4u
.. **Wit) 43.4** ozhliall j L_glc. LJS,111

C14:1.4 **Lri LN² 4 9¹¹⁴ .¹41¹ 1⁴¹¹.9**
94 ;t1.411 *Lab .1.11 ari L₅- **AFB**
• V _.)) 4) .-4 Le₄i J Ji 3+11 125 ak.ASSLII j113
Z71..64b)71 L,LAALI 0;:tx41
LIS 4_4111₉ j j Cia.141_j cyeLall uL1 Lev
J..ti4.11 at (3,, 4r.9.4%.411 t:1190r L₁Ic _____j+:111₉ c:¹ll 1*i*&) ?1
J,,1 u 41 j..x..11
- _____ :Lc" J311 A-1S - utsill _____ J+111

AFB **44a J.4.^z14.1 4+L¹.9 Cia².11 .3¹41)**
4qL+4.11 **J+.3** (1
19+91 4_Y^m E:FB L_gqi.ji'1⁷1 4i.d11 l) l):0.)4, :L.L.:x431 yⁱ
la.-4 L112.11_9111 (-)-4 217

.14.1 'fllil ail.. of <*43,N.11 014 la 14. I 3A=14ll
 c:1¹-4¹ LD-A L,; ? A-L-J_94 t
 c1j#l <t L53l_____J..13.11 ;k4.411
 ,4³¹1 413:1-6411 uhf 3².11 Lsia 144.944.9.)4 , 'L¹j¹-13,4¹

ja.c2-111 C-31:33 (

Y .. 0 < f O:3.1) d.z.1.1.11 **AFB**
 ;J 14,1 4,1411 U)L.S • V < ,
 .441:ia ,4s,,,a ?!,
 s Llsi Lsisl
 111j.4.1,3 **EFB**L549 j¹!
 :41141 41iti1.N...1 Aii

L5⁸ J.9-4-1¹1 1-d_____ **AFB** Ls-Ciy.'11 O,,1 i ci
 L,);,1 j r.1 4I.J1 u9y vci L LIZAI
 .dbraa %;11 641 yil 1.114=1 **EFB** I

Paenibacillus larvae subsp. *larvae* L,j,4⁸s4 (i
 Ls.la **AFB** C,)'³ (,)4*-4 coi J c ci..9i)
 (Sheep blood agar medium e lia 4:44) ;t
 uLiL-5 DA JS D...
 j,+11 <.:Jl.JaiL..AV Ls..la j_3_° r r ;Lt... 4 t hJ..
 '1441.111 ,419411

0-4.4-4c.riis. '191) *Melissococcus pluton* 1-1,);³64 (o
EFB t
 J _____(Bailey's medium ⁴;;h1) _____
 j-=t3.4 Zr.1.4.4 L'al4LS jai CiA Q!:
 ,4.44119 ,443:411 ab jittall :L ee c:11.1;11-N.4 f Ls ia

Varroa I iJULD
 Li-z1 ;Lai. V t 11-c' ID-s³.5&¹-11 c-LA LS-ii.L,¹31+11 *destructor*
 * • uc i **EFB 4,4 Jy** ⁴¹⁶¹-1. r r **AFB**
 02.1 (3_ 114 1)_4
 L5⁴.ww ja ;t1it... j.?.I c;4 1.446. I ,#113S_i
 L1.11_12 Lri 1. 1)llll J1Si .a }_y (i)44 ..%2,4.1 V 43i
 al.31 lgt⁴ 1.+13Lol LL.42.11 3_%1
 C IA Ls÷JUJI Le-z¹¹-'' alr-¹¹¹ a¹W:H c 3A cStY
 "?_)⁴¹¹ " °11.51131
) Li51,5lllll l_y, Lsll lyu_j CilLS
 L-r^a j IA ji A o. c v 0 Y Ljll1 1l=ll o:ve L, CX, csi jpS (c ja:iil
 . **EFB AFB** ⁴..⁶4,).4³ _-²⁵¹.3¹¹ 1_ε¹¹¹¹b)-4 Ls-⁶¹
 (sail **JLSI** s j_ \$3.4.11 A.4.).141 Lbc. (DS.4:1 .471
 _____ Li31.51,11_____cyal41_&.1:4I
 Ls.all 1, 1)1111 4:11.2.1)1Si c>41111.,;_j9c\,11 43j441 '11 I dic cA.4,1 b,1
 &SS _____ 4.246 1 1 1 _____ (i).4 t;g⁴.1 _AI_I
 _____ cs.il. w lSVI
 14,41 e³ Lgall 11,1511 j_i4 1 g_s..1
 LS -LAB
 . t_er'' Li_i^{x1/} j..)) e' C_ 12 j_3⁶¹¹
 :Lc& ll i s A tl-1 t j (V
 410'0 41 4•,Va 4.,0 4.0'0 44,10 4.,1
 cⁿ¹.1111 LiAx-4¹¹ u^{ri} **P. L larvae** ^{14..}4:64 0 W! ^{1_}L⁶¹⁴:144 **JO •**
 _____ ^ (j)533 113. 31.41SU .4i1saA 1 1 calici
 ;;¹-⁴ LLS (MIC) L¹¹44
 j..)) • . 0 :6.501 •
 t..141 • • /LI > cJ3_3 •
 .44 341 , o
 .1"•' 641 , Ji³5¹¹¹ ci."-%--1-4 •
 /J...,Y 0 tLi.111 j

• • /J-4. ,0(cl.v r ;,L.a, I) C.:1-&-151311 •

(e.4.)4₉¹4A ks ¹ 12+ ca+-9¹-•_I³31) a.L-9¹-49---.)4 c5 **Ali** cs .1¹-1¹-1¹ •

LI-) • • / 0

L1,4) • ij,) (i. 194l

.11.144

(%' LSJ___ 54 ³¹ .)-4 ⁷¹ c.1¹- •

J-4¹ , ° (a".2¹-4.9.)¹;) &?493".) LS.)-4.¹¹ .L¹- 411

⁴.31.1 J-4 ¹ • • / JA 1,° 0%1 ¹ 1. CU)) Y-CiA

LS1-4 :US i1-;11 Lrⁱ WItl.1.4311 c9IJ9i

136_53 1 • _II 3.4 _3453

AFB

cl,`L.c. eLl (A

JAZ en 45111 JZ1:1411 C.p4

Ls..6

(s31:111.S

_____ (L¹ ..P1¹ ..9 .3 ¹ 1¹ Jfis. J_____ J⁴ LI1¹ 0¹.)÷) .1

. LS.JJ¹¹ y+¹1j •LA

a iS. j •7¹

(x1.41-4-41; u

L,2111 J_1..4 A e..1.i.14 i 1

¹¹.1¹ **P. L larvae** ³4³ csi ¹44²-4

1..45

ups Jam+ • /j.41 0 3.33.110 •

(.151.-• J.) • • ILIA • ,V ° C.kw4-⁴3.4¹..? •

• • /JA • ,) AljgdcA.3) •

d4)• • •

c341.3 • • /JA • • ° Lifial •

cS**Js**" J91yo d.Qt •i%, • o ajill L0.4.y&A •

j...) • • • 0 (o ur: JCL c.1.11.33:11 jtat _____

LIA) • • /Lido," 4314.1 j jjjL^L s.).•

E,j...2 T.11 A_11 12 LLOI23 jS .1'

.(Z141-,...11 D,)4 V

r2;Li I_yLe:Zet.1 cJ...111 _3+4 4z.911411 y_iLi LS .1·

Jsii_111

LSa 4.J1÷N.C. 1411 a! 9>)C/151.511 lfZel C.451 t

0.11.111S L31k9

LA3LP tsi Ctt+U1 Z.461 S!_91

?Lc L5.31,3_%, a--.3 j.13 t .1

yji-¹ Ld4c ('4,4¹ 1;J:i L-⁶¹ 5.611 ⁴41.4
Lsic.1.443 1 tip tj...111 yⁿ

;Liu ji11 .471

(;)6:11O:O1ici 1.111 9.611 01-Lt (ā):1.Y1 uL 11

AI.124 c).• j4 1 1 V

EA.1.4:2;%31 4_4 Y 12= (JIG : 44.1;j*

ksi j.12Ua3 i CaLci .1

t?)41 b yi9 J % ° = L.S.D. .3ic.

.Y` V J:U4¹ Ls-1) Y• J4."^{471.1} J8.¹ (.:)4

L5.1c. - iil 4.9,3.4.44 c ;14)1U1 j C.O146_411

:453 Lci 0.

i8-k/ % ° = L.S.D. cs (35⁹

kijiLa . V J.,j 11 y •

LS^{kIAS}

oI. Y V 1, 9 a,u1.11 c.14) •

0 ,1 Z:4yo ° °,0 a J111 SpAa. • •

• .0. Y1 . ji. a •

4-i Jy_{e.o} ;L1ALL411 L-131 j.12.11_4 4 i J14 (ALL_j

l 4.ja...i3 (jii4) Y,1

.S

43, j = 10 JJ... := (V

1, 44 L_{er}a, 24.3-11 : 4.N4: III I.II.I.II

CJA 41:IAN 31111 Catf.4 . I 131.1.N11

03441.1. 60.4z. 46431 اسم الطالب
الدرجة
عنوان الرسالة
:L144.1.11 (56.: lekya 41,0 L)G. Lai
j_AM U.aJ,)151,1 kibtr.,9 jualicly 1.1i1513
4.111 o .6.a.a 111.,⁴11
Lza
ail) feSIA
o421 k,d1Aati 11.43.1 jaa 1114.11Sr
(Z:PULail Cok>41.%) 4:11 4 199
• • A/1 1 /1 9 : 4aj.il) c;.& :WI jA

cs⁻¹ J: ~":'____L-M& 1/4,} ¹
American foulbrood Ls-'°JA .)-'°'.9.k9÷J L¹-P
'..¹.51 **DiaDj (EFB)** European foulbrood Ls-9J11)_, (**AFB**)
(.)..4 .1123 L4A..).p. :L=31141 :k., L,L31
Lyd:, csJ jiaZ.,11 Ij jUll Ly|9jt.S1 1-43.4 ka2.11 431..:)= <(.1 1:10111
"k.3.i 4S3-141 ,Syal_111 39&.L411
AA,111 ,A410.1.11 4:t4s
4.:~1.1,4 ri X31 }~l~°|| **IOLA**
L4S irt..A Lt-4:34 lYi 9 JJJPI ____ fj.614 j+1;
_j1SI (..1. ¹..¹..¹ Ls*i* **Varroa destructor**
pc. 4-..¹..¹11 Li:A."1=31
J J_i) J ||_9 A_11*¹ 4 (:~|| " CZ-t-%~...kji
Paenibacillus ¹-Lii-S3I¹ (Di '=1:92 || Ls-la
AFB l);.-)4) Ls.) ____--¹ 4.5-⁴ larvae subsp. **Larvae**
EFB **Melissococcus pluton**
it:: L):.1 j c.SU s_j €1;.-11 c)-1, 3
.1-43-a 1.i
431 c=1¹..
Cj4 t4 :4 1Ar0719
Ls ia ____ 53 A 94a. j 1 4. 1 8&) 1
3¹413¹1¹L5-IC. **P. I. larvae** ¹..ug-.l¹
6.5-⁶,s¹ ____-¹¹,L¹)_414¹ Z¹L' cLuul
34,51 L53,14 :43J.413
11: 11 c.11:1111 Cluelli 4-4 :t4-6,oA31 Cj.4 a c **AFB**
j-11 1.44L.

40¹,9Jiiⁱi 44)⁴¹ .A:": / f^{4;11},>⁴ * Sⁱ Cfr L^A/J^J
Li¹¹1)/¹¹¹ d".¹².J¹ "a¹¹-9¹!

4.41_14

A-41A 4AALA AGA. s_ti11

cry A¹.⁴4 - ⁴y D j¹¹ 411

Lrla JJA⁴A⁻¹¹

i*J.¹².¹¹ J4:" +¹.⁴¹¹ 4J⁴
411,,44

(jAail jA.1)

,46-11 j..24+¹¹

.....  aiaz.AAA ("ISLA **WILD 11.1,41**
:415 _ ,L11_4111 ;41_, -]GL it

A["]t⁻:⁰ .:.¹J3¹¹

.....4.11.11 j**Ac**..... L.12 aga.531

asl_j _ c_11_4:111 ²4i_i - j¹.₃ ,LJ)₁₁%11

Lea, Z.4 ie 1.t.

Li.3424 41

_311:L₄1s _

.*:LJ

1+4

.....  o_j1121 ,/4.4.A joiS.⁵³1 111.41
- tc 1)₃¹1.=34 3SJA - 3.271 .14x... -

03₄,31

• . A

r JJ J L(A).4 11 41:22.11 (510., Le:a_j..4 9c.
iJJW J.MJ_t L 4:tt jo.a.11

jilyAto 4mA .10A0 ,4=11 AGA*

'A,AD1.13³¹
a_c. _ 4.1_j311:i.4.1s

Lrk'

J7:¹4-6? ..¹¹4.).¹
CJI

lJAlJ 2JLij1;ULU

ol,}11 / JJ il

112.112 3.AL - j_311 :41 - c.i4111 _ L |

l+1o _ JI A _ cao _ 3l L LJLJ 3l 31:1.1

L.A111.1 (5112.ALLA J:14 W.LS

j311 1S - C:141 j - b.:11411 j act_uL411 J .1i1,11

j..4P les.% 4.4411 Leu / j:S.1.11

_Jd:i l_jjl.1915 _ il dill 'atiJ

L4.1,

.....LJJ.L Z¹¹.54 (60 lA /..:9:15411 1... 1

- c.l_jj311_a - j_a_%11 ILLA1

• A/ 11 / 2...111.1.11 tu J.1

cs a_dtfij a_{it}.4`3 | ;L:10.162.11 e),:t_{cs}.,:z,)A 441 6c. L.411
11)1, oalit.Si4 9 cam)

c).4 d.o e . 240110 ;ULAJI

محمد السيد محمد حسن حشيش
بكالوريوس العلوم الزراعية؛ ١٩٩٦
كلية الزراعة - جامعة عين شمس

للحصول على

درجة الماجستير

فى

العلوم الزراعية
حشرات إقتصادية
(نحل العسل)

C14111 e rAl

1.4 4,1.4ⁱ).

1' A