



* OREDO -RXUQDO RI 1XUVLQJ)RUHQVLF 6WXGLHV

6DUDELDRER ORE - 1XUV)RUHQVLF 6WXGLHV
ULVN IDFWRUV RI HOGHU DQG
YXOQHUDELOLW\ WR DEXVH RFFXUV

(GLWRULDO

8KROQHULQJ LQWUHYHOWLDOV WR PRGL
2SHQ \$F

6XSSRUWLQJ FDUHJLYHUV ,GHQWL\ DQG
VWUHV DQG SK\VLFDQ DQG HURWHHDO
RFFXUUHQFH RI YLROHQW EHKDYLRU E\ GH

(OGHUO) HQMR\HG VRELDQ UHERIQWLRO UH
JXDUDQWHH RI WUDQVPLDOV UHNRZOHGJ
ZKHUH DJH UHODWHG HISHULHQFH ZDV FROVL
WKH VRELDQ VWUXEWHUHQH HGDH WLRQDO SR
VRELHW\ DUH SUREDOHQW KH DEDFNJURGO
SURGXFWLYLW\ KHDORQ LQGXFWRU DQG
VWDUV WKH ROG XQSURGXFWLYH DQG

LV VRPHWLPHV D EXUGHQ D QXLVDQFH
IRU WKH HOGHUO\ > @
IRU SVFKRVRELDQ FDUH RI WKH IDPLO\

'HPRJUDSKLF DQG VRELDQ FDKQJHV KDYH
QHFHVVDU\ DGDSWDWLRQ UHVRXUFHV
FUHDWHG ZLWKRXW ORQJLQJ IRU WKH
WKH RULJLQ RI DEXVH EHFDXVH QRW RQ\ VRELDQ
IDFWRUV DUH LQYROYHG EXW DOVR FXOWR
> @

\$EXVH LV JHQHUDOO\ H[HUWHG RQ WKH
LQ WKH FDUH RI ZRPHQ IRU WKH XSUR
E\ WKH DJJUHVVURU LQ WKH FDUH RI
UHDVRQV LQWLPDWH SDUWQHUV YLROHQW
PRVW DUH WKH DQVZHU WR D VLWXDWLRQ
HOGHUO\ FRQVLGHUHG EXUGHQHQW
IDFWRUV DVVRELDWHG ZLWK DEXVH
VRFLRFRQRPLF SUREOHPV D KLVWRU
> @HVHIDFWRUV DUH FRQVLGHUHG PR
H[LVWHQFH QRW DOZD\ GHWHUPLQH
WKDW RQO\ LQFUHDVHV WKH OLNHOLKRU

UHD[HVLGHQ] HOGHU DEXVH > @
L \$ OLQN WR PHDQLQJIXO DQG SHUVRQDOL]HG
JHQHURVHQFH 5HIHQHQFH

LLH UHVXOWRQJ FDUH RU ULVN RI GDPD
LLH LQWHQWLRQ RU LQWHQWLRQDOLW\
H FDXVHV DQG SUHGLVSRVLQJ WR DEXVH
WKUHH PDLQ DUHDV IDFWRUV VR WKDW
ZRUN RQ WKHP

3RVVLELOLWLHV RI LQWHUYHQWLRQ RI
PLWUHDWPHQW RI WKH HOGHUO\

3ULPDU\ SUHYHQWLRQV RI KHDORQ
SULPDU\ SUHYHQWLRQ DUH DV IROORZV

LLH UHVXOWRQJ FDUH RU ULVN RI GDPD
LLH LQWHQWLRQ RU LQWHQWLRQDOLW\
H FDXVHV DQG SUHGLVSRVLQJ WR DEXVH
WKUHH PDLQ DUHDV IDFWRUV VR WKDW
ZRUN RQ WKHP

3RVVLELOLWLHV RI LQWHUYHQWLRQ RI
PLWUHDWPHQW RI WKH HOGHUO\

3ULPDU\ SUHYHQWLRQV RI KHDORQ
SULPDU\ SUHYHQWLRQ DUH DV IROORZV

&LWDW&RQPHQ 0 6DUDELD &RER

6FUHHQLQJ DQG ;QWHUYHXQWLRQVHQWLFOGXG\ \$EXVH

3DJH RI

'RQJ ;4 (OGHU \$EXVH 6\ VWHPDWLF 5HMLH\$ DQR,PS-OLFDLWLRQV 2RUKPDQ 6 0RKG +
3UDFWLFH - \$P *HULDWU 6RF &OXVWHU 5DQGRPLJHG 7ULDO RQ ,PSURYL
&RUEL * *UDWWDJOLDQR , ,YVKLQD ()HUUDQD\H&HQLRQ (OGHU \$EXVH DQR 1HJOHFV
&3 (OGHUO\ \$EXVH 5LVN)DFWRUV DQ\$YX\XVLQJ 5ROH ,QWHUQ DQG
(PHUU 0HG 'X 0RQW - .RVD ' 0DFG-RDQOG 6 (H\HLQWSPH
+RRYHU 50 3ROVRQ 0 'HWHFWLQJ (OGHUO\ \$EXVH DQR 1HJOHFV HWHFWLQJ IRU)RUH
\$VVHVVPHQW DQG ,QWHUYHQWLRQ \$PHULFDQ \$PHULFDQ \$PHULFDQ %0- RSHQ H
<DvH- 7D]NDUML % 8QGHUVWDQGLQJ +RRYHU \$EXVH 3RQV RQ DLO\ 'HWHFWLQJ (O
3UDFWLFH &DQDGLDQ IDPLO\ SK\VLFLDQ \$VVHVVPHQW DQG ,QWHUYHQWLRQ \$P)DP 3K
'LDJQRVWLF DQG 7UHDWPHQW *XLGHOLQH V RQ (OGHU \$EXVH DQG 1HJOHFV
&KLFDJR \$PHULFDQ 0HGLFDO \$VVRFLDWLRQ
0R\HU 9\$ 6FUHHQLQJ IRU ,QWLPDWH 3DUWQHU 9LROHQFH DQG \$EXVH RI
(OGHUO\ DQG 9XOQHUDEOH \$GXOWV 86 3UH\HQWLYH 6HU\LFHV 7DVN)RUFH
UHFRPPHQGDWLRQ VWDWHPHQW \$QQ ,QWHUQ 0HG