
7KH H[SHFWHG ZHOIDUH EHQHILWV RI WKH SURSRVHG VWXGL
GHYHORSHPHQW DQG WHVWLQJ RI QHZ VWXQQQLQJ V\WHPV ZK
DQG GXUDWLRQ RI XQFRQVFLRXVQHVV IROORZLQJ VWXQQQLQJ
JXLGHOLQHV H J PLQLPXP FXUUHQWV IRU ZDWHUIRZO ZKL
LPSURYH ZHOIDUH DW VODXJKWHU 7KH UHVXOWV IURP WKH
WKDW FRXOG GLUHFWO\ XQGHUSLQ OPHHWODIWRQ\$Q\$V ZR XDOO
UHOHYDQFH WR DQLPDO ZHOIDUH 1*2V GHYHORSHPHQW RI JX
SRXOWU\ SURGXFHUV DQG VWXQQHU PDQXIDFWXUHUV

+RZ ZLOO \RX ORRN WR PD[LPLVH WKH RXWSXWV RI WKLV ZR

,I DSSURSULDWH DQG ZLWK SHUPLVVLRQ RI WKH IXQGLQJ ER
SURPRWH WKH ZHOIDUH RI SRXOWU\ GXULQJ VWXQQQLQJ VODX
SUHVU UHOHDVHV DQG LQYLWHG SUHVHQWDWLRQV 8QVFFH
VXEPLWWHG IRU SXEOLFDWLRQ

6SHFLHV DQG QXPEHUV RI DQLPDOV H[SHFWHG WR EH XVHG

- 2WKHU ELUGV 1R DQVZHU SURYLGHG
- 'RPHVWLF IRZO *DOOXV JDOOXV GRPHVWLFXV

3UHGLFWHG KDUPV

7\SLFDO SURFHGXUHV GRQH WR DQLPDOV IRU H[DPSOH LQMF
GXUDWLRQ RI WKH H[SHULPHQW DQG QXPEHU RI SURFHGXUH'

([SODLQ ZK\ \RX DUH XVLQJ WKHVH W\SHV RI DQLPDOV DQG \

&KLFNHQV JHHVH DQG GXFNV DUH EHLQJ XVHG DV WKH\ DUI
DUH FXUUHQWO\ RU ZLOO EH XVHG FRPPHUFLDOO\ IRU VODX
SURMHFW ZLOO EH RI FRPPHUFLDO VODXJKWHU DJH DQG ZHL

7\SLFDOO\ ZKDW ZLOO EH GRQH WR DQ DQLPDO XVHG LQ \RX

7KH HIIHFWLYHQHV DQG UHODWLYH KXPdqHqHV RI VWXQQ
KHDWLQJ FDSWLYH EROW HOHFWULFDO VWXQQQLQJ ZLOO EH
RI FRQVFLRXVQHVV VHQVLELOLW\ ZLWK EHKDYLRXUDO EUDLQ
DFWLYLW\ RI WKH EUDLQ 7KLV ZLOO EH FRQGXFWHG LQ DQD
ELUGV 7KH XVH RI D QRQ UHFYHU\ DQDHWKHWLD PRGHO II
VWXG\ DOORZV WKH DVVHVVPHQW RI EUDLQ IXQFWLRQ DQG V
PHWKRQ ZKLOH UHGXFHQJ WKH SRWHQWLDO IRU VXIIHULQJ ,
ZLOO EH XVHG LQ VXEVTXHQW QRQ DQDHWKHWLVHG VWXG

\$QDHWKHWLD DQG QRQ DQDHWKHWLD VWXGLHV

5 H I L Q H P H Q W

*LYH H[DPSOHV RI WKH VSHFLILF PHDVXUHV H J LQFUHDVH
PDQDJHPPHQW WUDLQLQJ RI DQLPDOV WR EH WDNHQ LQ UH
FRVWV KDUPV WR WKH DQLPDOV 'HVFULEH WKH PHFKDQLV
UHILQHPPHQW WHFKQLTXHV GXULQJ WKH OLIHWLPH RI WKH SU

:KLFK DQLPDO PRGHV DQG PHWKRGV ZLOO (SODXVH ZHGXULQJ
DQG PHWKRGV FDXVH WKH OHDVW SDLQ VXIIHULQJ GLVWUH

7KH XVH RI DQG FRQVWDQW PRQLWRULQJ RI WKH WHUPLQDO
H[SHULPHQW ZLOO SUHYHQW SDLQ VXIIHULQJ DQG GLVWUHV
UHILQHPPHQW RI SDUDPHWHUV ZLWKRXW FRPSURPLVLQJ ZHOI
H[SHULPHQWV ,Q UHFRYHU\ H[SHULPHQWV ELUGV ZLOO EH I
H[FHVVLV SDLQ DQG GLVWUHV GLVWUHV FDOOS\ WUHDUHG F
H[SHULPHQWV ELUGV ZLOO EH LPPHGLDWHO\ HXWKDQLVHG W
HOHFWULFDO VWXQQQLQJ KDV DOVR EHHQ VKRZQ WR SKURQ XFC
WR UHFRYHU 7KLV ZLOO UHGXFH WKH SRWHQWLDO IRU SDLQ
EHHQ GHPRQVUDWHG WR SURGXFH LQVWDQWDQHRXV LUUHF
VXIIHULQJ

,Q D SUHYLRXV OLFHQFH D ORFDO DQDHVWKHWLF FUHDP ZDV
HOHFWURGHV IRU DVVHVVPHQW RI WKH KLWZDFW SXFDIQQDWRWV
UHILQHPPHQW +RZHYHU LW ZDV IRXQG LQ H[SHULPHQWV ZLW
RI WKH ELUGV IRU SODFHPHQW RI WKH /\$ FUHDP FDXVHG PRC
DVVRFLDWHG ZLWK VXEGHUPDO XQGHTJKWKHU WTXLIQHPPHQW ZB
DPHQGPHQW WR WKDW OLFHQFH ,Q WKH VXEVHTXHQW H[SHU
REYLRXV VLJQV RI SDLQ DQG GLVWUHV ZLWK WKH SODFHPH
FUHDP ELUGV ZHUH OHVV VWUHVVHG DQG HDVLHU WR KDQG
WKH UHILQHPPHQW PDGH WR LPSURYH DQLPDO ZHOIDUH FDQ
KDUPV 7KLV KLJKOLJKWV WKH QHHG IRU FRQVWDQW PRQLW
UHILQHPPHQWV

:K\ FDQ W \RX XVH DQLPDOV WKDW DUH OHVV VHQWLHQW"

&KLFNHQV JHHVH DQG GXFNV DUH EHLQJ XVHG DV WKH\ DUI
FXUUHQWO\ RU ZLOO EH XVHG FRPPHUFLDOO\ IRU VODXJKWH
VSHFLHV WKDW FDQ EH XVHG IRU WKLV UHVHDUFK 7KH XVH
7KRX •€`QH 0`ð 0@€PRYH€PRE€ KCp0P p0À €0†O@ RY€RVp€P0•X

+RZ ZLOO \RX UHILQH WKH SURFHGXUHV \RX UH XVLQJ WR PL
DQLPDOV"

%LUGV ZLOO EH KDELWXDWHG WR H[SHULPHQWDO VWDII SULI
ZDONV DQG ORZ LQWHQVLW\ KDQGOLQJ :KHQ ELUGV DUH KD
DYRLG H[FHVVLVYH RU SURORQJHG KDQGOLQJ \$OO ELUGV ZLC
H[SHULPHQWDWLRQ

7KH XVH RI VXE GHUPDO QHHGOH HOHFWURGHV KDV EHHQ IR
VXIIILFLHQW VLJQDO TXDOLW\ ZLWKRXW WKH QHHG IRU DQDH
ZHUIDUH DW VODXJKWHU H[SHULPHQWV ,Q WKHVH OLFHQFH\
QHHG IRU LQGXFWRQ RI DQDHWKHWLD VXUJHU\ DQG UHFR

:KDW SXEOLVKHG EHVW SUDFWLFH JXLGDQFH ZLOO \RX IROO
WKH PRVW UHILQH ZD\"

7KH \$55,9(SULQFLSOHV ZLOO EH IROORZHG IRU H[SHULPH
PRVW UHOHYDQW DQG WUDQVSDUHQW H[SHULPHQWDO GHVLJ
VWDQGDUGLVHG DQG SXEOLVKHG LQ SHHU UHYLHZHG MRXUQ

+RZ ZLOO \RX VWD\ LQIRUPHG DERXW DGYDQFHV LQ WKH 5V
HIIHFWLYHO\ GXULQJ WKH SURMHFW"

7KH LQVWLWXWLRQ LV DFWLYH LQ GLVVHPLQDWLRQ RI 1& 5\
XSGDWHV YLD D QHZVOHWWHU HPDLOV DQG RQOLQH QRWLIL