

8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF  
 9 \$ 3ODQQHG 3URJUDP 6XPPDU\

3URJUDP

1DPH RI WKH 3ODQQHG 3URJUDP  
 \$JULFXOWXUH DQG )RRG 6HFXULW\

5HSRUWLQJ RQ WKLV 3URJUDP

9 % 3URJUDP .QRZOHGJH \$UHD V

3URJUDP .QRZOHGJH \$UHDV DQG 3HUFHQWDJH

| .\$<br>&RGH | .QRZOHGJH \$UHD                          | ([WHQVLRQ | ([WHQVLRQ | 5HVHDFK | 5HVHDFK |
|-------------|--|-----------|-----------|---------|---------|
|             | 6RLO 3ODQW :DWHU 1XWULHQW                | 5HODW     | LRQVKLSV  |         |         |
|             | 3ODQW *HQHWLF 5HVRXUFHV                  |           |           |         |         |
|             | 3ODQW %LRORJLFDO (IILFLHQF\ DQG \$ELRWLF |           |           |         |         |
|             | 6WUHVHV \$IIHFWLQJ 3ODQWV                |           |           |         |         |
|             | 3ODQW 0DQDJHPHQW 6\WHPV                  |           |           |         |         |
|             | :HHGV \$IIHFWLQJ 3ODQWV                  |           |           |         |         |
|             | ,QWHJUDWHG 3HVW 0DQDJHPHQW 6\VWHPV       |           |           |         |         |

8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF  
 \$FWXDO GROODUV H[SHQGHG LQ WKLV 3URJUDP LQFOXGHV &DUU\RYH

| ([WHQVLRQ   |               | 5HVHDFK    |              |
|-------------|---------------|------------|--------------|
| 6PLWK /HYHU | E F ([WHQVLRQ | +DWFK      | (YDQV \$OOHQ |
|             |               |            |              |
| 0DWFKLQJ    | 0DWFKLQJ      | 0DWFKLQJ   | 0DWFKLQJ     |
|             |               |            |              |
| \$OO 2WKHU  | \$OO 2WKHU    | \$OO 2WKHU | \$OO 2WKHU   |
|             |               |            |              |

9 ' 3ODQQHG 3URJUDP \$FWLYLW\

%ULHI GHVFULSWLRQ RI WKH \$FWLYLW\

5HVHDFK DQG RXWUHDFK FRQWLQXHG WR DVVXUH WKDW EHVW P  
 DUH SURYLGHG WR WDUJHW DXGLHQFHV \*URZLQJ WULDOV SURYLGHG Q  
 RI FURSV DV FKDQJHV LQ WKH VXEDUFWLF DQG DUFWLF FOLPDWH RFFX  
 FRQWLQXHG WR EH UHYLWDOLJHG WR UHPDLQ UHOHYDQW WR UHJLRQD  
 RQ RQH HGXFDWLRQDO DFWLYLWLHV ZLWK VSHFLILF VHFWRUV RI WKH S  
 FRPPXQLW\ DQG WKH KRULFXOWXUDO LQGXVWU\ SURYLGHG LQGLYLGX  
 ,QFUHDVHG UHOLDQFH RQ WKH LQWHUQHW DQG WHFKQRORJ\ HQKDQFHG  
 DQG VWDII XWLOLJHG GLVWDQFH HGXFDWLRQ SODWIRUPV ,QFUHDVLRQJ  
 VWUDWHJ\ LQ NHHSLQJ SHVW VSHFLHV EHORZ WKUHVKROG OHYHOV 2XV  
 IRUXPV WRXUV DQG FRQVXOWDWLRQV ZLWK VWDNHKROGHUV

%ULHI GHVFULSWLRQ RI WKH WDUJHW DXGLHQFH

7KH WDUJHW DXGLHQFHV LQFOXGHG SURGXFHUV DQG FRQVXPHUV  
 DJULEXVLQHVHV LQGXVWU\ OHDGHUV LQGLYLGXDOV DQG JURXS FRC  
 HQYLURQPHQW SXEOLF UHVRXUFH DJHQFLHV SXEOLF DQG SULYDWH UH  
 UHVHDFKHUV DQG XQGHUJUDGXDWLHV DQG JUDGXDWLHV VWXGHQWV 2WK  
 JDUGHQ DQG SODQW DVVRFLDWLRQV SXEOLF DQG FRPPHUFDO JUHHQK  
 ODQGVFDLHV VWDWH DQG IGHUDO SDUN HPSOR\HHV JDUGHQHU P  
 DQG XUEDQ PXQLFLSDOLWLHV SHVW FRQWURO RSHUDWLRUV SURSHUW\  
 DQG SULYDWH VFKRROV UHFUHDWLRQDO IDFLOLWLHV UHVRUWV DQG K  
 GLVWULFWV \$GYLVRUV DQG WKH WDUJHW DXGLHQFH LQFOXGHG WKH \$O  
 &RQVHUYDWLRQ 6HUFLH WKH 86'\$ )RUHVW 6HUFLH WKH \$ODVND 'HS  
 JRYHUQPHQW DQG \$ODVND 1DWLYH FRUSRUDWLRQV

+RZ ZDV H;WHQVLRQ XVHG"

,Q )< IDFXOW\ DQG VWDII DQVZHUHG DJULFXOWXUH DQG KRULW  
 WKURXJK H;WHQVLRQ V \$VN DQ ([SHUW LQWHUIDFH 7RSLFV LQFOXGHG  
 JDUGHQLQJ IUXLW FURSV IORZHU JURZWK VPDOO DQG ODUJH OLYHVW  
 6HYHUDO SHUVRQQHO DWWHQGHG DQ H;WHQVLRQ ZHELQDU RQ ZHHG PD  
 ODQGVFDLHV \$JHQW DQG HGXFDWLRU PHPEHUVKLSV LQ H;WHQVLRQ V F  
 &LWL]HQ 6FLHQFH ,QYDVLVH 6SHFLHV +RPHSDJH \$XWKRUV %LJ 'DWD  
 ,QWHJUDWHG 3HVW 0DQDJPHQW

8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF  
 9 ( 3ODQQHG 3URJUDP 2XWSXWV  
 6WDQGDUG RXWSXW PHDVXUHV

|         |                            |                            |                          |                          |
|---------|----------------------------|----------------------------|--------------------------|--------------------------|
|         | 'LUHFW &RQWDFWV<br>\$GXQWV | 'LUHFW &RQWDFWV<br>\$GXQWV | 'LUHFW &RQWDFWV<br><RXWK | 'LUHFW &RQWDFWV<br><RXWK |
| \$FWXDO |                            |                            |                          |                          |

1XPEHU RI 3DWHQW \$SSOLFDWLRQV 6XEPLWWHG 6WDQGDUG 5HVHDFK  
 3DWHQW \$SSOLFDWLRQV 6XEPLWWHG  
 <HDU  
 \$FWXDO

3DWHQWV OLVWHG  
 3XEOLFDWLRQV 6WDQGDUG \*HQHUDO 2XWSXW 0HDVXUH  
 1XPEHU RI 3HHU 5HYLHZHG 3XEOLFDWLRQV

|         |           |         |       |
|---------|-----------|---------|-------|
|         | ([WHQVLRQ | 5HVHDFK | 7RWDO |
| \$FWXDO |           |         |       |

9 ) 6WDWH 'HILQHG 2XWSXWV  
 2XWSXW 7DUJHW

2XWSXW

2XWSXW 0HDVXUH  
 " 2XWSXW )DFXOW\ ZLOO SURYLGH DJULFXOWXUDO DQG KRULFXOWXU  
 ILHOG GD\ V DQG FRQIHUHQFHV LQFOXGLQJ ,30  
 <HDU \$FWXDO

2XWSXW

2XWSXW 0HDVXUH  
 " 2XWSXW )DFXOW\ ZLOO SURYLGH DJULFXOWXUDO KRULFXOWXU  
 WKURXJK RQH RQ RQH FRQVXOWDWLRQV DQG FRQVXOWDWLRQV Z  
 ZLOO EH FRQWDFW KRXUV  
 <HDU \$FWXDO

8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF

2XWSXW

2XWSXW 0HDVXUH

" 2XWSXW +RUWLFXOWXUDO FURS UHVHDFK ZLOO FRQFHQWUDW  
DSSURSULDWH WR \$ODVND 3XEOLFDWLRQV DQG SUHVHQWDWLRQ

<HDU \$FWXDO

2XWSXW

2XWSXW 0HDVXUH

" 2XWSXW &RQWUROOHG HQYLURQPHQW KRUWLFXOWXUH ZLOO IR  
WUDQVIHU DQG DSSURSULDWH FURSV DQG EHVW PDQDJHPHQW SU  
HQYLURQPHQWV 2XWSXW PHDVXUHV ZLOO EH SXEOLFDWLRQV DQ

<HDU \$FWXDO

2XWSXW

2XWSXW 0HDVXUH

" 2XWSXW )RFXV ZLOO EH RQ EHVW PDQDJHPHQW SUDFWLFHV IRU  
SURGXFWLRQ 2XWSXW PHDVXUHV ZLOO EH SXEOLFDWLRQV DQG S

<HDU \$FWXDO





8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF

IRU 3ROLVK FDQROD ZHUH OEV DFUH LQ )DLUEDQNV DQG OE  
FRPSOHWLQJ D PDVWHU V WKHVLV LV XVLQJ GDWD IURP WKLW SUR  
LPSDFWV RI FOLPDWH FKDQJH RQ ZKHDW JURZWK

\$VVRFLDWHG .QRZOHGJH \$UHDV

.\$ &RGHQRZOHGJH \$UHD

6RLO 3ODQW :DWHU 1XWULHQW 5HODWLRQVKLSV

3ODQW 0DQDJHPPHQW 6\ VWHPV

:HHGV \$IIHFWLQJ 3ODQWV

,QWHJUDWHG 3HVW 0DQDJHPPHQW 6\ VWHPV

'UDLQDJH DQG ,UULJDWLRQ 6\ VWHPV DQG )DFLOLWLHV

(FRQRPLFV RI \$JULFXOWXUDO 3URGXFWLRQ DQG )DUP 0D

2XWFRPH

2XWFRPH 0HDVXUHV

2XWFRPH ,QFUHDVH OLYHVWRFN SURGXFHUV DELOLW\ WR XQGHU  
SUDFWLFHV 0HDVXUH ZLOO EH QXPEHU RI SURGXFHUV

\$VVRFLDWHG ,QVWLWXWLRQ 7\SHV

" ([WHQVLRQ

" 5HVHDFK

D 2XWFRPH 7\SH

&KDQJH LQ \$FWLRQ 2XWFRPH 0HDVXUH

E 4XDQWLWDWLYH 2XWFRPH

<HDU \$FWXDO

F 4XDOLWDWLYH 2XWFRPH RU ,PSDFW 6WDWHPHQW

,VVXH :KR FDUHV DQG :K\

0DQ\ \$ODVNDQV GR QRW OLYH QHDU HDVLO\ DFFHVVLEOH VHUYLFH

UDQFKLQJ KDYH D QHHG IRU LQIRUPDWLRQ RQ KRZ WR EHVW PRQL

WKDW WKH\ FDQ LGHQWLI\ SUREOHPV HDUO\ ZKHQ WKHUH ZLOO E

YHWHULQDULDQ DQG RWKHU H[SHUW KHOS LQ PRUH UHPRWH DUHD

VHFXULW\ DQG KLJK FRVWV RI OLYLQJ /LYHVWRFN UDLVHG LQ \$OD

KRPH DQG FRPPHUFDO XVH 7KHUH VH1007.HV /LVWRFN EHVRWK



8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF

(LJKW ZRUNVKRSV LQ PXOWLSOH ORFDWLRQV LQFOXGLQJ UXU  
GHYHORSRPHQWV RQ KLJK WXQQHOV DV DQ RSWLRQ WR DXJPHQW W  
ODVWHU \*DUGHQHUV ,Q VXP WKHUH ZHUH FRQWDFWV ZLWK  
ZRUNVKRSV LQFOXGLQJ LQWHUSUHHLQJ VRLO VDPH UHSRUWV  
IUHH IRUDJH DQG SHVWLFLGH VDIHW\ WUDLQLQJV JUHHQKRXVH G

5HVXOWV

\$OO RI WKH SDUWLFLSDQWV LQ KLJK WXQQHO ZRUNVKRSV DV  
JDLQHG ERWK NQRZOHGJH DQG VNLOOV \$OO RI WKH SDUWLFLSD  
GLIIHUHQW ZRUNVKRSV RQ JDUGHQLQJ DQG VHHG VWDUWLQJ DJUH  
SHUFHQW JDLQLQJ VNLOOV \$ VHULHV RI <RX7XEH YLGHRV FDOO  
YLHZHUV LQVLJKWV IURP PDQ\ ORFDO JURZHUV 7KH SDVVLYH VRO  
2Q DQRWKHU YLGH D YLHZ FRPPHQWHG ZH WULHG VRLO EORFN  
H[WUHPHO\ LPSUHVVHG ZLWK WKH KHDOWK RI WKH SODQWV ODQ\  
WRSLFV WKURXJK XSYRWHV DQG FRPSOLPHQWV VXFK DV DQRWKH  
FRRO OXPEHU FRQVWUXFWLRQ RI JUHHQKRXVH

\$VVRFLDWHG .QRZOHGJH \$UHDV

.\$ &RGHQRZOHGJH \$UHD

6RLO 3ODQW :DWHU 1XWULHQW 5HODWLRQVKLSV

3ODQW ODQDJHPHQW 6\VVHPV

:HHGV \$IIHFWLQJ 3ODQWV

,QWHJUDWHG 3HVW ODQDJHPHQW 6\VVHPV

6WUXFWXUHV )DFLOLWLHV DQG \*HQHUDO 3XUSR VH )DUF

'UDLQDJH DQG ,UULJDWLRQ 6\VVHPV DQG )DFLOLWLHV

(FRQRPLFV RI \$JULFXOWXUDO 3URGXFWLRQ DQG )DUF OD

2XWFRPH

2XWFRPH 0HDVXUHV

2XWFRPH ,QFUHDVH WKH QXPEHU RI DGRSWHUV RI QHZ WHFKRO

\$VVRFLDWHG ,QVWLWXWLRQ 7\SHV

" ([WHQVLRQ

" 5HVHDFK

D 2XWFRPH 7\SH

&KDQJH LQ \$FWLRQ 2XWFRPH 0HDVXUH

E 4XDQWLWDWLYH 2XWFRPH

<HDU \$FWXDO

8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF  
F 4XDOLWDWLYH 2XWFRPH RU ,PSDFW 6WDWHPHQW

,VVXH :KR FDUHV DQG :K\  
1HZ WHFKQRORJLHV KHOS HYHU\RQH LQ WKH DJULFXOWXUH ILF  
VKDULQJ GLDJQRVWLFV DQG RWKHU LPSURYHPPHQWV DQG HIILFL  
FURSV \$ODVNDQV QHHG PRUH RSSRUWXQLWLHV IRU UHSRUWLQJ D  
VKDULQJ REVHUYDWLRQV IURP H[SHULHQFHG JURZHUV DQG ZDWF  
IRU PDQDJLQJ DQLPDO DQG SODQW SURGXFWLRQ ([SRVXUH WR QH  
WKH SRVVLELOLW\ \$ODVNDQV ZLOO DGRSW VXFK WRROV

:KDW KDV EHHQ GRQH  
7KH \$ODVND :HHGV ,GHQWLILFDWLRQ DSS FRQWLQXHG WR EH P  
DJHQW SURYLGHG WUDLQLQJV RQ ILUVW GHWHFWLRQ RI LQYDVLV  
, 'PRELOH DSS WR LGHQWLI\ DQG UHSRUW WKH ORFDWLRQ RI LQYD  
XWLOLJHG LQ FRQMXQFWLRQ ZLWK XQLYHUVLW\ YDULHW\ WULDOV  
VFLHQWLWV DQG UDWK WKH YDULHWLHV WKH\ KDYH JURZQ IRU W  
FRQWLQXHG WR RIIHU DQ RQOLQH VRLO WHVW FDOFXODWRU WKDW  
DOORZLQJ XVHUV WR HVWLPDWH VRLO IHUWLLOLW\ QHHGV DQG XQC

5HVXOWV  
7KH \*URZ 7HOO DSS KDV VHHQ LQVWDOODWLRQV RQ L26 D  
ODXQFK LQ 7KH \$ODVND :HHGV ,GHQWLILFDWLRQ DSS KDG  
GRZQORDGV VLQFH LWV ODXQFK &RPPHQWV LQFOXGH 1LFH D  
IHDWXUHG RQOLQH LQ WKH 8 6 &OLPDWH 5HVLOLHQFH 7RRONLW  
RIILFHV XVH WKH VRLO FDOFXODWRU IRU HDFK KLJK WXQQHO SUR  
)< WKH WRRO KDG XQLTXH SDJHYLHZV

\$VVRFLDWHG .QRZOHGJH \$UHDV

.\$ &RGHQRZOHGJH \$UHD  
3ODQW \*HQHWLF 5HVRXUFHV  
3ODQW %LRORJLFDQ (IILFLHQF\ DQG \$ELRWLF 6WUHVHV  
3ODQW 0DQDJHPPHQW 6\VWHPV  
,QWHJUDWHG 3HVW 0DQDJHPPHQW 6\VWHPV  
&RPPXQLFDWLRQ (GXFDWLRQ DQG ,QIRUPDWLRQ 'HOLYH

## 2XWFRPH

2XWFRPH 0HDVXUHV

2XWFRPH ,QFUHDVH WKH QXPEHU RI DFWLYLWLHV WKDW PRQLWR  
0HDVXUH ZLOO EH WKH QXPEHU RI RXWUHDFK DFWLYLWLHV DQG SX  
\$VVRFLDWHG ,QVWLWXWLRQ 7\SHV



8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF

\$QLPDO 3K\VLRRJLFDQ 3URFHVVHV

2XWFRPH

2XWFRPH 0HDVXUHV

2XWFRPH 'HPRQVWUDWH HIIHFWLYH FROODERUDWLRQ EHWZHHQ L  
DJULFXOWXUH DQG KRULFXOWXUH LVVXHV

\$VVRFLDWHG ,QVWLWXWLRQ 7\SHV

" ([WHQVLRQ

" 5HVHDFK

D 2XWFRPH 7\SH

&KDQJH LQ \$FWLRQ 2XWFRPH 0HDVXUH

E 4XDQWLWDWLYH 2XWFRPH

<HDU \$FWXDO

F 4XDOLWDWLYH 2XWFRPH RU ,PSDFW 6WDWHPHQW

,VVXH :KR FDUHV DQG :K\

9DULHW\ WULDOV DUH WLPH FRQVXPLQJ 6HHG FRPSDQLHV WH  
PDUNHW DW ODUJH LQ WKH /RZHU 7KRXJK YDULHWLHV GHVFULE  
DUH UDUHO\ WHVWHG LQ JURZLQJ VHDVRQV DV H[WUHPH DV \$ODVND  
VWUXJJOH ZLWK WKH WULDO DQG HUURU RI LGHQWLI\LQJ YLDEOH  
VRPH WULHG DQG WUXH YDULHWLHV DUH QR ORQJHU DYDLDEOH  
H[SHQVH WLPH DQG HIIRUW JDUGHQHUV DQG IDUPHUV QHHG WR S  
VXFFHVVIXO

:KDW KDV EHHQ GRQH



8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF

FROOHFWHG DQG WHVWHG UHLQGHHU EORRG VDP SOHV IRU GLVHDY  
ZDV UHYLHZHG E\ WKH VWDWH YHWHULQDULDQ 6HYHQ VWHHUV ZH  
DQG HYDOXDWHG IRU SRVW VODXJKWHU WHP SHUDWXUH HIIHFWV

5HVXOWV

6DPSOHV VHQW WR WKH 8QLYHUVLW\ RI ,OOLQRLV 0HDW 6FLHQ  
OLSLG FRQWHQW FRRNLQJ ORVV WHQGHHUQHVV DQG RWKHU DWWU  
WHQGHHUQHVV EHWZHHQ WKH KR XU DQG GD\ FKLOOHG DQG VWR  
UHLQGHHU FKLOOHG IRU KR XU DIWHU VODXJKWHU ZDV IRXQG W  
IUR]HQ LPPHGLDWHO\ DIWHU VODXJKWHU 6XEVHTXHQWO\ UHLQ  
UHVHDFKHU GHYHORSHG SURWRFRO ZLWK FDUFDVV WHP SHUDWX  
VZDEEHG IRU DHURELF EDFWHULD DIWHU KR XU \$OO VDP SOHV  
VXJJHVWLQJ UHLQGHHU FDQ EH VODXJKWHUH G K\JLHQLFDQO\ LQ W  
ULJRU EHIRUH IUHH]LQJ

\$VVRFLDWHG .QRZOHGJH \$UHDV

.\$ &RGHQRZOHGJH \$UHD

1XWULHQW 8WLOL]DWLRQ LQ \$QLPDOV

\$QLPDO 3K\VLRRJLFDQ 3URFHVVHV

(FRQRPLFV RI \$JULFXOWXUDO 3URGXFWLRQ DQG )DUP 0D

9 + 3ODQQHG 3URJUDP ([WHUQDO )DFWRUV

([WHUQDO IDFWRUV ZKLFK DIIHFWHG RXWFRPHV

- " Natural Disasters (drought, weather extremes, etc.)
- " Economy
- " Appropriations changes
- " Public Policy changes
- " Government Regulations
- " Competing Public priorities
- " Competing Programmatic Challenges
- " Populations changes (immigration, new cultural groupings, etc.)

%ULHI ([SODQDWLRQ

Alaska continues to be severely impacted by the falling price of crude oil. The state provides a significant portion of the university's funds, and the university has experienced several consecutive years of reductions. About 40 percent of SNRE funding comes from the state. Between 2014 and 2017, the university system's budget dropped from \$378 million to \$325 million, resulting in 50 discontinued or suspended academic degree and certificate programs and 933 fewer faculty and staff. In FY18, the budget was further reduced to \$317 million. SNRE, in particular, has faced difficulties with the combination of budget cuts and fixed-cost increases restricting hiring for vacant positions. In FY18, key agriculture personnel departed. The Delta district lost administrative support, and an associate professor of range management retired. One of the Experiment Farms experienced director turnover. The merger between AFES and CES has helped maintain research and service, but both units have heavy workloads as we try to keep our productivity high in challenging times.

8QLYHUVLW\ RI \$ODVND &RPELQHG 5HVHDUFK DQG ([WHQVLRQ \$QQXDO 5HSRUW RI \$FF