



## UKUBALULEKA NENDLELA YOKWENZIWA KWEZILINGANISO ZOMOBA

**U**kuqagula ubungako bomoba omile emasimini kwenziwa ngokusebenzisa ulwazi olutholakala emlandweni weminyaka eyedlule yokukhiqiza kwensimu ngayinye.

Isizini nesizini, umlimi nomlimi osuke ezohlahla, ulindelekile ukuba enze futhi athumele izilinganiso zomoba okhona ensimini yakhe emshinini. Ngokujwayelekile, izilinganiso zokuqala ziye zenziwe ngo Nhlolanja (Feb.)

Sikuphi isidingo salokhu futhi kubaluleka ngani?

Izizathu ezisemqoka zokuba kungani kumele umlimi nomlimi enze futhi athumele izilinganiso zobungako bomoba yilezi:

- ukuba iSigayo sikwazi ukuqagula ubude besikhathi sokugaya
- ukukwazi ukubalela umlimi ngamunye umoba azowuthumela usuku nosuku eSigayweni kuleyosizini
- ingoba aBemboni kaShukela baseNingizimu ne-Afrika badinga izilinganiso ezishaya emhloeni ekwenzeni izethembiso zoshukela ozothengiswa noma olindelekile kanye nokukhan-

gisa kubathengi ngentengo esezingeni eliphezulu.

- kuyasiza futhi ngasohlangothini lokwenza izinhlelo zezimali (budgeting) – kwabomshini, kumlimi nakusonkontileka

Zimbili izindlela zokwenza izilinganiso ensimini:

### Eyokuqala (Igxila kubungako kanye nesisindo sezingoqo)

Lena indlela eshaya emhloeni yokwenza izilinganiso. Bala ubuningi bezingoqo emitheni ngalinye (lokhu kwenze ezindaweni eziyi-5 ezahlukene ensimini) isib. asithi zili-14 izingoqo emitheni ngalinye kanti isisindo esiphakathi ngamakhilo ali-0.8 ngasinye (thola isisindo sezingoqo ezili-14 bese wehlukana ka-14.

Uma ukugqagqana kolayini noma kwemigqa yomoba kulimitha elilodwa (1m) kusho ukuthi imigqa ehekeni ngalinye iyizi - 10 000m (10 000 ÷ 1). Uma ukugqagqana kwemigqa kulimitha elilodwa nezigamu ezimbili (1.2m) kusho ukuthi imigqa ehekeni ngalinye iyizi-8333m (10 000 ÷ 1.2).

Manjeke, izingoqo ezili-14 emitheni ngalinye × 10 000 yemigqa ehekeni

kusho ukuthi kunezingoqo ezi - 140 000 ehekeni ngalinye.

Ngaleyondlela, isivuno somoba esilinganisiwe sizoba:

140 000 wezingoqo (ngeheka) × 0.8kg (isisindo sogoqo ngalunye) = 112 000kg noma amathani ali-112 ngeheka (112tc/ha).

Uma ngabe isilinganiso somoba omile senziwe ngenyanga kaNdasa kodwa insimu kuhlelwe ukuba ihlahlwe ekupheleni konyaka kusho ukuthi ukukhula okulindelekile inyanga nenyanga umoba ungakahlahlwa, kumele kwengezwe kwisilinganiso esenziwe ngo Ndasa.

### Isibonelo:

Uma insimu inezinyanga eziyi-8 ubudala kuqagulwa ukuthi umoba omile ungamathani angama-50, kodwa uzohlahlwa ekupheleni kukaLwezi (usunezinyanga ezili-16 ubudala), kusho ukuthi isivuno esilindelekile ngesikhathi sekuhlahlwa endaweni ekhiqiza ngokujwayelekile ingabalwa ngalendlela elandelayo (bheka ithebula ngezansi):

50 (Ndasa) + 6 (Mbasa) + 3 (Nhlaba) + 2 (Nhlanguvana) + 1 (Ntulikazi) + 1 (Ncwaba) + 2 (Mandulo) + 3 (Mfumfu)

+ 6 (Lwezi) = **74tc/ha**, lesi isilinganiso sesivuno esingatholakala kwi heka ekupheleni kuka Lwezi uma insimu isihlahlwa.

### Eyesibili (Ayigxili kubungako bezingoqo kanye nesisindo sazo)

Lendlela ayishayi emhloeni njengalena engenhlala kodwa iyashesha futhi ingelula kakhulu ekuqaguleni. Lokhu kungenziwa ngokukala ubude bogoqo olodwa ku-

suka emhlabathini kuya ekhanda lomoba (ithophisi selisusiwe). Ubude obutholile ngokusebenzisa ibhande lokukala (tape measure) njengoba sibona esithombeni esiseceleni, buhlukanise kabili impendulo oyitholayo kobe sekuyisilinganiso sesivuno okungamathani ngeheka.

### Isibonelo:

Ubude bogoqo – 80cm (thatha ugoqo oluphakathi nendawo ngobude ensimini)

Hlukanisa lobude kabili – 40cm (80 ÷ 2)

Isilinganiso samathani ngeheka ngokwalesi bonelo = **40tc/ha**, ngenkathi yokwenziwa kwesilinganiso.

40 (Ndasa) + 6 (Mbasa) + 3 (Nhlaba) + 2 (Nhlanguvana) + 1 (Ntulikazi) + 1 (Ncwaba) + 2 (Mandulo) = **55tc/ha**

Ukuze ufinyelele kwisilinganiso esiphelele sensimu ngayinye, phindaphinda isilinganiso somkhiqizo weheka ngobungako bensimu ngayinye. Isib. **55tc/ha X 1.25ha = 66tc**, uma insimu yakho ingu 1.25has, isilinganiso sayo singama 66tons.

Into ebalulekile nevezwe izona zombili izindlela ukuthi umlimi kumele awahambele amasimu futhi asebenzise ukukhula okulindelekile **okuphakathi nendawo (±5)** njengoba kukhonjisiwe ethebuleni elingezansi.

Abalimi bayanxuswa ukuba baqinisekise ukuthi bayazenza izilinganiso ukuze kungabi nokuphazamiseka kwezinhlelo zokuthuthwa nokugaywa komoba okungaholela ekutheni kube nomoba ovaluleka ngaphandle.

NGU: Joe Nkala  
(Umeluleki wakwa SASRI)

### UMKHIQIZO

#### Ukukhula komoba okulindelekile ngenyanga ngendlela eyejwayelekile

Inyanga	Ukukhula kwamathani omoba/ngeheka/ngenyanga				
	3 wamatani (kuphansi kakhulu)	4 wamatani (kuphansi)	5 wamatani (kuphakathi nendawo)	6 wamatani (kuphezulu)	7 wamatani (izinga eliphezulu kakhulu)
Mbasa	4	5	6	7	8
Nhlaba	1	2	3	4	5
Nhlanguvana	0	1	2	3	4
Ntulikazi	0	0	1	2	3
Ncwaba	0	0	1	2	3
Mandulo	0	1	2	3	4
Mfumfu	1	2	3	4	5
Lwezi	4	5	6	7	8
Zibandlela	6	7	8	9	10
Masingana	7	9	10	11	12
Nhlolanja	7	9	10	11	12
Ndasa	6	7	8	9	10
Isamba	36	48	60	72	84

# ISIBONELO SOMOBA SASE NDLA VELENI

## UMXHUMANISI OMUSHA E SASRI



U SASRI useqashe u Mnu. Sifiso Hlela njengomxhumanisi (Agricultural Liaison Officer) wesikhungo socwango (SASRI) nabalimi.

U Mnu. Hlela osanda kuqashelwa emnyangweni wezokuphathwa kolwazi kulesikhungo, ungene ezicathulweni zika Mnu. Mzwandile Gina osanda kushiya. Umsebenzi oqavile ka Sifiso noma indima azoyidlala kulenhlangano ukuxhumanisa abalimi abalima-ngokuncane nabacwaningi noma nososayensi base SASRI. Omunye wemisebenze okubhekeke ayenze ukukhuthaza ezolimo entsheni lapho ezobe egqugquzela ukufundwa kwezolimo ezikoleni kanjalo nasezikhungweni zemfundo ephakeme.

U Sifiso waqala ukusebenza kulenhlangano kashukela e Sugar Terminals (emtatani) ngo 1998 okwathi emva kwesikhathi wabe esesebenza emkhakheni wokucwaninga ngokhula (Weeds Specialist Technician) e SASRI ngo 2003. Usesebenzile ngaphakathi e SASRI isikhathi eside eshintshashintsha iminyango nemikhakha njengoba eseke waba emkhakheni oqondene nocwango lwezokuvuthiswa komoba owaphinde futhi wasebenza ophikweni lethimba lezemisebenzi njengomlawuli noma umholi walelithimba.

Siyakuthokozela kakhulu ukuba nomuntu onomlando omude futhi ojulile eMbonini kaShukela okuzonezela ethimbeni lokuphathwa kolwazi e SASRI. Sikuphokophelele kakhulu ukwakheka kobudlelwano obuqinile phakathi kwabalimi kanye nabeluleki nabacwaningi / nososayensi base SASRI.

Abalimi abathanda noma abanesifiso sokuvakashela kwa SASRI ngenhloso yokuzofunda ngokwenzakalayo kulesikhungo, bangaxhumana nabeluleki bakwa SASRI ezindaweni zabo noma baxhumane ngqo naye u Sifiso kule mininingwane yakhe yokuxhumana - (031) 508 7511 noma sifiso.hlela@sugar.org.za.

**U** kutshalwa kwezibonelo kwezolimo ku elinye ithuluzi elinamandla kakhulu elisetshenziswayo ukudlulisela ulwazi kubalimi ngoba kwenza umlimi azibonele ngqo ukwenziwa komsebenzi futhi enze yena, ngaleyondlela loko asuke ekade ekufundiswa ngokwenza kuyahlala ekhanda futhi akulula ukukukhohlwa, njengoba sazi ukuthi iningi labalimi lifunda kalula ngokubona nangokwenza.

Indawo yase Ndlaveleni ekwa Gcumisa ngaphansi kwaka Swayimane ingenye yezindawo esikwazile ukuthi kutshalwe isibonelo somoba kuyo ukuze abalimi bomoba bakulendawo bafundiselwe kuso ngazozonke izinto ezithinta ukukhiqizwa komoba. Lesibonelo singesinye sezibonelo eziyishumi nesithupha (16) esezatshalwa ngaphansi kwesigayo sase Noodsberg esimaphakathi nesifundazwe. Lesibonelo satshalwa ngonyaka ka 2008 ngokubambisana phakathi komnikazi wensimu uMnu T. Mdunge, isigayo llovo sase Noodsberg, uMnyango weZolimo neMvelo nokuThuthukiswa koMphakathi kanye no SASRI.

Zimbili izinhlobo zomoba ezitshaliwe kulesibonelo okuwu N12 no N37 kanti ubukhulu besibonelo sonke singu 1.4ha

Kwizibonelo, abalimi bafundiswa okuningi ngokukhiqizwa komoba njengalokhu okulandelayo:

- Ukuhlola uhlobo lomhlabathi
- Ukuthathwa kweSampula lomhlabathi
- Amakhono okuphatha ibhizinisi
- Izifo nezinambuzane
- Ukuphathwa kweMvelo
- Ukukhetha uhlobo lomoba
- Ukubulawa kokhula ngokusebenzisa uphoyizeni
- Ukufakwa kukamanyolo, nokunye

### Isilinganiso somoba kulesibonelo sama kanje:

Izinhlobo zomoba ezitshaliwe	N12	N37
Isivuno	151 tons / ha	106 tons/ ha
RV	15, 36 %	
Imali engatholakala uma uwuyisa esigayweni	R 60 223, 34	R 45 050, 38
Imali engatholakala uma udayisa imbewu	R 37 750, 00	R 26 500, 00

*Qaphela – lesivuno esingenhla sitholakale ezinyangeni ezizingama – 24 (24months)*

Kulezibonelo, kuye futhi kutshalwe izinhlobo zomoba ezahlukene okusizayo ekutheni abalimi bazibone lezinhlobo bazi ngazo futhi babone ukuthi zikhqiza kanjani ezindaweni zabo loko okubalekelela kakhulu ekukwazini ukukhetha uhlobo lomoba olwenza kahle endaweni yabo.

Ubukhona balezibonelo kuyasiza kakhulu futhi ngoba abalimi baphinde bathole imbewu yomoba kuzo esezingeni eliphezulu. Loku kuyasiza kakhulu ngoba kunciphisa izindleko zokutshala kuphinde futhi kwandise indawo etshalwe umoba endaweni

Ukutshalwa kwalezibonelo kuncike kakhulu ekutholakaleni koxhaso noma izimali zokuzitshala, ngaphandle koxhaso kubanzima ukutshala isibonelo. Njengoba sibona eNdlaveleni ukuthi saxhaswa uMnyango weZolimo kanye nabesigayo somoba ngokubambisana. Abalimi bangaxoxisana noMnyango weZolimo kanjalo nabezigayo zomoba uma bezidinga lezibonelo ukuze bathole ukuxhaseka ekuzitshaleni.

*Ngq: William Gillespie (Umeluleki wakwa SASRI)*

# IZIFUNDO ZOMOBA EBEZETHULELWA ABALIMI

Ukuqinisekisa ukuthi abalimi bomoba abalima-ngokuncane banolwazi ngasonke isikhathi ngezinto ezintsha kanjalo nangezinguquko esezikhona ekukhiqizweni komoba nokuvuselelanake nje, unyaka nonyaka abeluleki bakwa SASRI okuyisikhungo socwaningo lwezomoba esise Mandaskomu ngokuhlanganyela nabomnyango weZolimo, Ezemvelo nokuThuthukiswa koMphakathi baye bahlele izifundo ezizodluliselwa kubalimi ukuze baqwashiswe ngalezozihloko.

Kulonyaka, ngenxa yokuthi sekunezinguquko ekuthathweni kweSampula lomhlabathi, kunohlelo olusha olukhuthazwayo lokulima ngokuhlanganyela futhi abalimi abaningi abanalo ulwazi olwanele ngomthamo ongakhiqizwa ipulazi noma insimu, kube sekukhethwa lezihloko zontathu ukuba kufundiswe abalimi ngazo.

Ingqikithi yesihloko **“Umthamo womkhiqizo ongakhishwa insimu / ipulazi”** yayincike kulokhu okulandelayo:

Yini okumele umlimi ayibheke epulazini lakhe ukuze akwazi ukubona ukuthi ngabe ipulazi liyahambelana yini nokukhiqizwa komoba, umkhiqizo ongakanani ongaphuma nokuthi, ikuphi okunye okungakhiqizeka epulazini. Lokhu kuthinta ukucwaningisisa ipulazi lonkana ngokubheka loku okulandelayo:

- Umhlabathi – kungabe umhlabathi ujule kangakanani, udedela noma umumatha amanzi kangakanani, uyisihlabathi noma uwubumba kangakanani?
- Ubunjalo bezulu endaweni - ngabe ipulazi lakho lisendaweni enokomisa njalo noma enezimvula ezinhle, kunesithwathwa, isichotho? Ngabe isimo sezulu sivumelana nokukhiqizwa kwani?
- Ukuma kwendawo – ngabe indawo iqethukile, okungadala ubunzima ekuhambeni kwemishini epulazini. Ngabe kudingeka izinsiza zokuvikela ukuguguleka komhlabathi. Ngabe indawo ibekile kakhulu okungenza kume amanzi kubhajwe imishini?

Yizoke lezi ezinye zezinto okumele umlimi azibheke ngaphambi kokuba asebenzise umhlabathi noma insimu ukuze abe nesiqiniseko sokuthi uwusebenzisa/uyisebenzisa ngokuyiko futhi okuzomzuzisa.

Njengoba abalimi behlale bekhuthazwa ukuba **“BATHATHE ISAMPULA LOMHLABATHI”** ukuze bazi uhlobo lukamanyolo nesibalo samasaka okumele asetshenziswe ukuze bathole umkhiqizo noma isivuno esihle, sekunoshitsho kwindlela okuthathwa ngayo isampula kanjalo nasesikhwahleni esisetshenziswayo ukufaka isampula lomhlabathi. Kulesihloko, abalimi babefundiswa kabanzi futhi bekhonjiswa lolushintsho.

Izinto ezazibalulwa ikakhulukazi yilezi ezilandelayo:

- Ukubaluleka kokuthathwa kweSampula lomhlabathi
- Indlela entsha eselithathwa ngayo isampula lomhlabathi ensimini
- Ibhokisi eselisetshenziswa ukufaka isampula lomhlabathi uma selithathiwe ukulithumela e Mandaskomu
- Isikhathi esithathekayo ukubuya kwemiphumela yesampula e Mandaskomu

Ungafunda kabanzi ngalokhu kwi INGEDE yango Mandulo (September) kulonyaka

Isihloko esahlaba kakhulu abalimi umxhwele yilesi **“SOKULIMA NGOKUHLANGANYELA NOMA NGOMFELA NDAWONYE”**.



Lolu uhlelo olusalusha oluthinta ukuhlanganiswa kwamasimu abalimi abawomakhelwane asetshenzwe njengePulazi elilodwa. Loluhlelo lunobuhle ngokuthi kongeka imali, kunyusa inzuzo, nokunye.

Loluhlelo selukhombise impumelelo enkulu ezindaweni ezimbalwa laselusebenza khona futhi lubonakala luzixazulula izinkinga eziningi abalimi abalima-ngokuncane abebeluleki benazo njengokuhlala, imililo, ukutholakala kwezimali zokulima, nokunye.

Abalimi bachazelwa kabanzi ngokusebenza kwaloluhlelo baluthakasela kakhulu ngendlela emangazayo futhi bakhombisa intshisekelo yokuluqala ezindaweni zabo.

Lezifundo, ezathulwa ezindaweni eziyisishiyagalolunye ezahlukene KwaZulu-Natal, zathanyelwa abalimi abalinganiselwa ku-416 kanti futhi zazihanjelwe nangebasebenzi bezigayo zomoba, abakwa CaneGrowers nabako Masipala. Lezifundo zaziqhutshelwa ezikoleni, emasontweni, emaholo nakwizakhiwo zikahulumeni kusukela ngo Ncwaba kwaze kwaba uMandulo kusuka e Sezela eningizimu kuze kuyofika oPongola enyakatho.

Ukuthatheka kwabalimi ngalezifundo kanye nokuxoxisana ababanako nabeluleki abababafundisa kwakhom-

bisa ngokusobala ukuthi banayo intshisekelo nogqozi lokufunda nokumukela inoma iluphi ulwazi oluwusizo oluqhamukayo noma olungalelwa kubo

Impumelelo yalezifundo yaba ngenxa yokubambisana kubobonke ababebambe iqhaza kuzo kusukela ekuhlelweni kuze kufike ekuthulweni kwazo. Abeluleki bakwa SASRI bathanda ukudlulisa ukubonga okukhulu kubeluleki bomnyango wezolimo ababamba iqhaza ngezindlela ezahlukene kulezifundo ngokuzinikela kwabo nanoma kwezinye izikhathi izimo zazingavumi. Babezilungiselele kahle futhi bakhombisa ukuba nolwazi olunzulu ngababefundisa ngako okwenza abalimi bazithakasele kakhulu izifundo.

Akugcinike la, abalimi bangathintana nabeluleki bezolimo ezindaweni zabo ukuze nabo bathole ulwazi olunzulu ngalezihloko. Lezifundo zingaqhutshwa ziyiswe nanoma ikuphi uma abalimi bezidinga.

Ezinye izifundo zaloluhlobo zizophinde zibe ngonyaka ozayo (2011) phakathi kuka June no August. Abalimi bangaphakamisa izihloko abathanda kufundiswe ngazo. Loku bangakwenza ngokuthi bathintane nabeluleki bezolimo ezindaweni zabo.

*Ngu: John Neen (Umeluleki wakwa SASRI)*

# USUKE WALUBONA LOLUKHULA

**K**unokhula oluyingozi olubizwa nge *Parthenium* ngokujwayelekile lubizwa iDemoina. Lolukhula lusohleni lokuqala ekuklelisweni kwezinhlobo zokhula eNingizimu Africa. Lokhu kulenza lungavumeleki ukuba lumile kulelizwe.

Lolukhula luhlasela izindawo eseziphazamisekile njengamadlelo asedleke kakhulu noma izindawo ezihlaselwe isomiso, onqenqemeni lwemigwaqo nas ezindaweni zokulahla udoti / inkunkuma lokhu okube sekwenza kube yilapho lukhula khona kakhulu bese lusabalala lusuka kulezindawo.

Lolukhula (*Parthenium* / Demoina) lukhipha ubuthi ezimpandeni obube sebukhinyabeza ezinye izitshalo.

Ukhula lolu luyingozi futhi alunambithisiseki kahle ezilwaneni ezidla utshani, lubulala utshani obudliwa imfuyo bese kukhinyabezeka impilo yemfuyo futhi konakale umkhiqizo wobisi nenyama. Ukulususa ngesandla kunzima ngoba ludala isifo sesikhumba, esofuba nokunye ukugula noma ukuphazamiseka empilweni.

Uma udinga incazelo noma ufuna ukwazi kabanzi ngalolukhula, xhumana noMeluleki wakho.



Imbali yokhula uDemoina ibukeka kanje.



Ukhula iDemoina oluseluncane.



Itshakazi yokhula iDemoina.



Ukhula iDemoina oselugqakazile.

## OKUSHA NGESIFO I-MSV (MAIZE STREAK VIRUS)

I-sifo i MSV siholele noma sidale ukulahleka kwesivuno esilinganisela emaphesentini angama - 31 kuhlobo lomoba u N44. Ugoqo oluhlaselwe ilesisifo luba lufushane futhi lube luncane noma londe kunogogo oluphile kahle. Ezimweni ezinzima lesisifo sehlisa izinga lemixhantela okusho ukulahlekelwa isivuno uma sekuhlahlwa. Ngenxa yalesifo, iN44 (njengoba kuyiyo ehlaselwa yilesifo) seyikhishiwe ohleni lwezinhlobo zomoba abalimi abavumeleke ukuzitshala, kodwa uma usenayo iN44 ensimini ungayigcina iminyaka emihlanu ngenkathi uSASRI esaqhubeka nocwango ngalesifo.

**Ngu:** Sharon McFarlane & Tania van Antwerpen (Ososayensi bakwa SASRI)



Kwesokunxele: Isixhanti esinesifo seMSV. Kwesokudla: Isixhanti esiphilayo.



Kwesokunxele: Isixhanti esiphilayo. Kwesokudla: Isixhanti esinesifo iMSV.