

# PULA IMVULA

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UAGASTI  
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## Ukuqala kahle ezigaxeni zokuqala!

Incwadi yeGrain SA  
yabalimi abasakhulayo

Funda Ngaphakathi:

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**K**ubalulekile ukuba amasimu akho ozimisele ukuwatshala ummbila kule sizini ezayo uwanikeze sonke isikhathi onaso kuselula. Yonke imihlabathi idinga ukuba ilungiselelwe kahle kanti nokhula olusemasini nalo kumele lulawulwe.

### Ukulungiselelwa komhlabathi

Lokhu kungadinga uhlobo oluthize lokuthila. Kungahlukaniswa imikhakha embadlwana kuya ngendlela oyisebenzisayo uma ulima. Izindlela ezintathu ezivamile zokuthila yilezi:

#### Ukuthila okujwayelekile

Lena bekuyindlela evamile iminyaka eminingi. Amafama abesebenzisa ikhuba le *mouldboard* uma bethila okokuqala bese belandelisa ngezindlela ezimbalwa zokuthila, kubala kuko nokulima uma isilimo sesikhulile. Namhlanje amafama esimanjemanje asewayekile amakhuba e *mouldboard*. Ziningi izizathu zalokhu, kepha okuyisona esihamba phambili ukuthi le ndlela yokuthila ishiya izinsalela emhlabathini. Lokhu kunciphisa inani le-*organic matter* ebalulekile emhlabathini. Kutholwe ukuthi ngokunciphisa ukusetshenziswa kwekhuba le *mouldboard*, nokukhuphula izinga le-*organic matter* emhlabathini, umhlabathi ukhukhuleka kancane kanti nomhlabathi lona osuvunde nge-*organic matter* wona ukwazi ukubamba amanzi.

#### Ukuthila okuncishisiwe

Lokhu kwenziwa imvama kusetshenziswa ikhuba lesixhokolo kanti kuyindlela ejwayelekile yokuthila ngoba sekutholwe ukuba ishiya u-15% kuya ku-30% wezinsalela ezemboza umhlabathi.

#### Ukuthila okulondayo

Lokhu kubandakanya kuko ukuthila okuncane noma izindlela zokungathili nhlobo. Ekungathilini, akunazindlela ezijwayelekile zokuthila kanti nembewu yesizini entsha ibekwa ngqo ngaphezu kwezinsalela zesilimo sesizini yangayizolo. Ezinye izindlela



## Ukuqala kahle ezigaxeni zokuqala!

zokuthila okuncishisiwe zikhuluma ngokusetshe-  
nzi swa okuncane kokuthila. Isibonelo ekuthileni  
komklayo, kuthilwa kuphela indawo encane  
engumklayo lapho isilimo sizotshalwa khona.  
Lezi zindlela zokulonda zingashiya okungenani  
u-30% wezinsalela ezimboze umhlabathi.

Ngaphambi kokuba uqalise ngokuthila oku-  
londayo cabanga kuqala ngalokhu okulandelayo:

Kubalulekile ukuba amafama azwisiswe ukuthi  
lzindlela ezishintshayo azenzeki nje masinyane,  
kepha kuthatha isikhathi. Enye yezinto eziba-  
luleke kakhulu okumele zicatshangwe ukuthi  
ngabe kube nokunqabelana kwe*pan* emhlabeni  
emvakweminyaka yokusebenzisa indlela yokuthi-  
ula evamile uma kulinywa. Lokhu kungatholakala  
ngokuba kugujwe imigodi noma kusetshenziswe  
*ipenetrrometer*. Uma kukhona ileya elinjalo, kume-  
le liqale lipulwe ngokuklelebulu ekujuleni oku-  
fanele. Uma lokhu kungenziwa, ngeke wathola  
umvuzo weqiniso wokulima okulondayo ngoba  
izimpande ngeke zafinyelele ekujuleni ngokuli-  
ndekekile kanti nomhlabathi nawo ngeke wagcina  
inani lamanzi okumele liwugcine.

Amafama asezingaweni ezihlanganyelwe  
zomphakathi abhekana nenselelo yokuthi uma  
befudukela kule zindawo eziphuculiwe imfuyo  
yabo kumele ithole amadlelo. Le mfuyo yona idla  
i-organic matter ebalulekile emhlabathini. Le nki-  
nga kuzomele ilawulwe kahle ngokuzayo ngoba  
impilo enhle yomhlabathi kanye nokugcinwa  
komswakama kuya ngokubaluleka kakhulu nje-  
ngoba sifunda ukujwayela ushintsho esimweni  
sezulu kanye nesomiso kanye neamazinga anci-  
phayo emvula lapha ezwenikazi lethu.

### Ukukhathazeka ngomoya okuhlobene nokulungiselelwa komhlabathi

#### Ukuguguleka komhlabathi

Ababhali bePula/Imvula sebebhale ngokuphi-  
ndelela ngale xhala elikhona ngendalo ikakhu-  
lukazi ngoba iyinkinga enkulu lapha eNingizimu  
Afrika. Ayingcosana amafama abonayo ukuthi  
inkinga le inkulu ngoba kuwumhlabathi oba-  
lulekile ongaphezulu esiwudingayo ukukhulisa  
imikhinqizo yethu lo oguguleka minyaka yonke.  
Ngempela, futhi yiwo wona amafama anesandla  
kule nhlekelele esibhekene nayo ngokuthila  
ngokungafanele kanye nezindlela ezingezinhle  
zokuphatha umhlaba! Ukuguguleka komhlabathi  
kwenzeka sidalo uma umoya noma amanzi  
esusa umhlabathi wangaphezulu uye ndaweni  
thize. Lokhu kuguguleka kungenzeka ngereyithi  
yamathani omhlabathi ihektha ngonyaka.

#### Ukuguguleka kwamanzi

Kwenziwa ukugijima noma amachaphazi emvula  
awela emhlabathini, ngakho-ke uma umhlabathi

ungavikelekile lokhu kuba kubi kakhulu kanti  
kuba bekukhona okumilayo emhlabathini  
bekungeke kwaba kubi ngaleyo ndlela.

#### Ukuguguleka komoya

Kuyinkinga ezindaweni ezinomoya – okuyiNi-  
ngizimu Afrika cishe yonke. Noma kunjalo kubi  
kakhulu ezindaweni ezivuleleke kakhulu ezi-  
fundeni zaseFreystata kanye naseNyakatho  
neNtshona.

Umthelela wokuguguleka komhlabathi mubi  
kakhulu kepha mancane kabi amafama aye  
akhathazeka ngoba abakuboni kalula noma  
abakwazi ukukala ukunyamalala komhlabathi  
wangaphezulu. Kepha ngokuhamba kwesikhathi  
kuzoba nobufakazi obandile:

- Bamazinga ehlele okuthela;
- Bokukhula kwemikhwibi nezindonga khona  
phakathi noma eceleni namasimu;
- Bokungenelela okunciphayo kwamanzi  
emhlabathini;
- Bokwakheka kwezingqeqwe emhlabathini;  
kanye
- Nokubaleka okwandile emvakwemvula.

Ukulonda yiyona ndlela enhle yokunciphisa  
ukuguguleka kanti njengendlela elula negabizi  
ingasiza kakhulu ukunciphisa ukuguguleka ko-  
mhlabathi.

#### Ukulawulwa kokhula

Ngaphambi kokutshala, kumele kuphuthulwe  
ukushisa kusetshenziswa amakhemikhali  
ukuze kubulawe ukhula embhedeni wembewu  
olungase lunqwabele isilimo bese luqophisana  
naso ngokuthola amanzi kanye namanyuthriye-  
nti emhlabathini. Ukhula imvama lukhula  
masinya okusho ukuthi luqhwaga isilimo esise-  
lula sesizini entsha uma lungalawulwa ngendle-  
la. (kunemiphumela evela ocwaningweni  
olwenziwe nguJurie Mentz weGrain SA Kwa-  
Zulu-Natali ku-athikhili esekhasini 6 ebhalwe  
nguGavin Mathews kulePula/Imvula yamanje.  
Le athikhili inolwazi olunzulu ongaluthokozela.)

Khumbula njalo ukuthi uma ufuna ukuqeda  
kahle ube ngumnqobi ekugcineni, yenza nje-  
ngoba umsubathi esebenza kanzima ukulungi-  
selela umjaho nje omfushane ngokuba afake  
amahora ezilungiselela enkundleni nasejimini  
nangokubheka akudlayo; yilokho-ke nawe  
njengomfama okumele ukwenze ukulungisele-  
la imihlabathi, ulwisane nokhula futhi unakekele  
ummbila wakho isizini yonke kuze kufike  
isikhathi sokuvuna. Kanjalo uzoba nesasasa  
eliphelele. 🌱

**I-athikhili ibhalwe nguJenny Mathews,  
umbhali wePula/Imvula. Uma ufuna  
iminingwane egcwele thumela i-imeyili  
kujenjonmat@gmail.com.**



## UGOGO JANE UTHI...

**A**mafama aba nje nesikhathi esincane  
sokuphumula. Enyageni edlule  
benimatasa nivuna isilimo esedlule,  
manje nakhu senilungiselela isilimo  
esilandelayo. Lona ngumjikelezo wempilo okumele  
uqhubeke. Sibusiseke kanjani ukwazi ukuthi kulo  
nyaka lizona futhi kanti thina sizokwazi ukutshala  
esinye isilimo!

Enye yezinto ezibaluleke kakhulu ngokulima  
okuqhubekayo ibandakanya ukusetshenziswa  
kohlelo oluhle lokujikeleziswa kwezilimo okufaka  
kuko izindumba. Amafama amakhulu akwazi  
ukusebenzisa izilimo ezihlukene emjikelezweni  
wezilimo ngoba kunezimakethe cishe zanoma yini.  
Kepha amafama amancane kuhle ukuba abuye  
atshale izindumba ezifana nobhontshisi angazifa-  
ka ohlelweni lokudla lwasekhaya. Ingingi lemindeni  
lidla ubhontshisi owomile kanti futhi wona ungamila  
ngempumelelo enkulu ezindaweni eziningi lapha  
eNingizimu Afrika. Izindumba ziwukhetho oluhle  
uma kuza ekujikelezisweni kwesilimo ngoba ana-  
maqabunga abanzi kanti ummbila wona uwu-  
tshani okusho ukuthi ukhula okunzima ukululawula  
kuwona (njengotshani) kuba lula ukululawula  
obhontshisini. Izindumba zibuye zidale inayithro-  
jini emhlabathini yona ezosetshenziswa yisilimo  
esilandelayo sommbila – ngale ndlela unganciphi-  
sa izidingo zikamanyolo okusho ukuthi unciphisa  
nezindleko zakho zokukhiqiza.

Uma ungenasiqiniseko ngokutshala ezinye  
izilimo (njengobhontshisi), zizame endaweni  
encane ukuze usazi isilimo futhi ufunde nokusilima  
ngokuqhubekayo nokufaka inzuzo.

Amafama aba sebungozini bokuba nemali  
eyanele nje idizili, imbewu kanye nomanyolo bese  
betshala isilimo ngaphandle kwamakhemikhali  
kanye nemali eyanele *itop dressing*. Kungcono  
kakhulu ukuba utshale indawo encanyana wazi  
ukuthi unemali eyanele ukuze uyenze ngendlela  
efanele kunokuba utshale indawo enkulu bese  
uthola isivuno esincane. Kuyadabukisa futhi uku-  
bona ukuthi amafama angena esilingweni sokuba  
nomhlaba obukhulu bawo bungelingani ama-  
ndla amatraki abanawo – lokhu nakho kuholela  
esilimweni esingesihle ngoba ugcine wenza konke  
usushiywe yisikhathi. Kungcono utshale indawo  
encanyana bese wenza konke kahle ukuze uthole  
isivuno esihle kona emhlabeni omncane sona  
esinikeza inzuzo enhle yona ezokupha ithuba  
lokukhulisa ibhizinisi lakho.

Sebenzisa lokhu onakho kahle ukuze ukhulise  
ipulazi lakho enzuzweni engenayo – lena yindlela  
egcinekayo. 🌱





# Ukuthenga ama-*inputs* kusenesikhathi ngale sizini lena yokutshala

Ukuvuna kwesilimo sakho sekuphothuliwe kepha noma kunjalo usubhekene futhi nenselele yokuthatha izinqumo mayelana nama-input azosetshenziswa ngesizini ezayo. Amanye amafama wona azobe ethole isilimo esihle kakhulu sommbila, ubhekilanga, isoya, amabele kanye nezinye izilimo ezifana namakinati, ubhontshisi wasemhlabeni owomile kanye nokudla kwemfuyo okuyimfuqulu.

Isivuno esitholiwe sezilimo zomhlaba owomile zizoveza imvula enile kanye nokuchelelwa kamanyolo, imbewu, *ama-herbicides*, *ama-insecticides* kanye namanye ama-input asetshenziwe. Amafama achelelayo wona azodinga ukuba abuye ahlaziye okumele kulungiswe nomakuphuculwe ebuholini noma enkambisweni yokukhiqiza.

Kuwukuhlakanipha ukubheka *i-input* yokukhiqiza ngayinye ukuze ukwazi ukuhlaziya ukuthi kudingeka okuningi noma okuncane noma-ke mhlawumbe kudingeka umkhiqizo owehlukile ukuze ukukhiqizwa kwesilimo esilandelayo singalungiswa futhi sandiswe.

Ukuhlela kumele kuphothulwe ekupheleni kwenyanga ka-Agasti ukuze boke abadayisi bama-*inputs* bazocelwa ukuba banike amanani nezindleko zokuchelela.

## Ukuhlela okuneminingwane ephelele

Ukuhlela okuneminingwane egcwele kungaqalwa ngo-Agasti ngokuba kubhekwe kuqala izinhlobo zemihlabathi kanye namandla omhlabathi kanye nezindawo lapho kuzotshalwa khona ummbila noma ezinye izilimo. Uma kudingeka ukuba uthathe amasampula omhlabathi kumele ukwenze lokhu ngaphambi kwenyanga ka-Agasti ukuze uthole imiphumela yakho kusenesikhathi. Amalebhu okuhlola imihlabathi ayagcwala ngamasampula ngalesi sikhathi sonyaka. Lolu lwazi lungasetshenziselwa ukulungiselela *igross margin analysis* yesilimo ngasinye. Kungabekiswa inzuzo ezokwenziswa kusetshenziswa isivuno esilindelekile kanti namanani *efuture Safex* angabekiswa ukuze kwaziwe ukuthi isilimo sizoba nenzuzo enhle noma cha.

Izindleko ezihlukile ezifana nembewu, umanyolo, *ama-herbicide* kanye nama-*insecticide* kumele zihlolwe ngokucophelela okukhulu kubhekwa ikakhulukazi inani elidingekayo lo mkhiqizo ngamunye. Izindleko zama-*input* adingekayo ihektha ngalinye zingasuka ku-R5 000 ziye ku-R7 000 ihektha ngalinye noma ngaphezulu.

Konke lokhu kulangana kube yimali enkulu etshaliwe ebalelwa ku-R500 000 kuya ku-R700 000 ihektha ngalinye elitshaliwe.

## Imbewu

Abakhiqizi bommbila kuzomele babheke emphakathini wesitshalo uma kuqhathaniswa namandla omhlabathi, nokuthi ngabe kungatshalwa uhlobo lommbila we-*GM* noma lowo ojwayelekile noma cha. Lolu khetho luzokubeka kube sobala ukuthi hlobo luni lwekhemikhali elidingekayo ukulawula ukhula kanye nezina-mbuzane. Izindlela zokuthila ezijwayelekile noma lezo ezilandayo nazo zizioba nomthelela kulokho okuzodingeka. Ummbila we-*GM* ubiza u-R0,04 uhlamvu ngalunye. Isivuno sezimila ezithile epulazini lakho singasetshenziswa ukukhetha izimila ezifanelekile. Ukuthenga imbewu kubadayisi kusenesikhathi kuzoqinisekisa ukuthi unembewu yesimila esithandwayo kanye nobukhulu bembewu efanele ama-*planters* akho. Kubalulekile ukuhlelela ukuthenga izimila zommbila *non-Bt* zona okuzodingeka ukuthi ngaphansi kwenkontileka zitshalwe njengezindawo zokuphepha phakathi noma zizungeze izindawo zommbila we-*Bt*. Lokhu kunciphisa izinga izinambuzane ezimelana ngayo nezinhlobo ze-*Bt*.

## Umanyolo nelime

Amasampula omhlabathi angahlolwa ngumfama, ama-agronomisi kanye nabadayisi bakamanyolo ukuze bakwazi ukusebenzisa ingxube efanele yenayithrijini, amafosfethi kanye nephotheziyamu. Izinkampani ezidayisa umanyolo sezivame ukwenza izingxube ezifanele umhlaba ngamunye kanye nembewu ngayinye. Kubalulekile-ke ukuthenga ingxube yomkhiqizo okuyiwona ukuba ulethwe e pulazini lakho ngaphambi kwesikhathi esifanele sokutshala. Ama-oda anqwabelene angakadilivwa lapho elindeleke khona angabiza kakhulu uma ungakwazi ukutshala isilimo sakho ngesikhathi esifanele. Izingxube ezihlukile kanye nokuhlelela *itop dressing* yengxube yenayithrojini uma kukhiqizwa ummbila kumele nakhokucatshangwe.

Uma ukhetha ukuhlelela *ilime* kweminye imihlaba, lo msebenzi kuzomele uphothulwe ngo-Agasti noma ngoSeptemba kuthathelwa ekhanda izimo zomhlabathi zamanje.

## Ukulawulwa kokhula kanye nezina-mbuzane

Ngokunjalo ukuhlelelwa kokulawulwa kokhula kanye nezina-mbuzane kumele kwenziwe kusetshenziswa izinhlobo zembewu kanye nezindlela zokuchelela. Kubalulekile ukuhamba emihlabeni yakho nomdayisi wamakhemikhali ukuze nibone izinkinga zokhula ngqo. Uhlelo lokuchelela olukhethayo kuzomele lucabangele imijikeleziso yesilimo sakho yangakusasa ukuze kugwenywe ukulimala okudalwa yizinsalela zamakhemikhali ngenkathi kujikeleziswa izilimo.

## Abadayisi bama-*input* okukhiqiza

Lesi futhi yisikhathi esihle sokuhlola ubudlelwane bakho nabadayisi, ubheka ukusebenza kwemikhiqizo kanye namazinga ezinkonzo owatholayo. Qinisekisa ukuthi uthole amakhawuthi amabili noma ngaphezulu kuyo yonke imikhiqizo oyidingayo. Ingxube efanele yezinhlelo zokuchelelwa kwamakhemikhali ingashintsha njalo ngesizini entsha.

## Isiphetho

Isikhathi sokuhlela sizokuvumela ukuma ubeke ngomumo izimali ezidingekayo ukuze kukhiqizwe isilimo ngesizini entsha nokuthi ube nawo wonke ama-inputs owadingayo eduze ngaphambi kokuba uqale ukutshala.

***I-athikhili ibhalwe ngumfama osethathe umhlalaphansi.***



# Ukuhlolwa kanye nokulungiswa kwamatraka namaplanters ngaphambi kwesizini yokutshala

**K**ungani kumele amatraki kanye namaplanters kulungiswe futhi kuhlolwe ngaphambi kwesizini yokutshala noma yokulima na?

Uma kwenzeka itraki yakho iphuka ngalesi sikhathi, uzoba nalezi zinkinga ezimbili:

1. Ulahlekelwa yisikhathi esibalulekile.

2. Ukuphuka okunje kuzokudla imali eningi. Uma ungalholi ukungasheshi kwakilashi, ikilashi ingaqala ukushelela. Itraki yona-ke kuzomele livulwe ukuze ilungiswe.

Lokhu kusho ukuthi itraki lakho lizobe lingasebenzi lizinsuku ezintathu noma ezine ngenkathi lilungiswa. Ngaleso sikhathi ngabe usutshale noma ulime okuningi kabi. Kuyabiza ukulungisa noma ukufaka ikilashi elisha.

Uma ifan belt yetraki ingahlolwa, ingaphuka bese idala umonakalo omkhulu. Injini ingashisa kakhulu, kanti uma ungamisi masinya ngokwanele,

inganqamuka. Ukulungisa le njini enje kuyabiza, kanti nomshini wakho uzoma zinsuku ezimbalwa.

## Isibonelo sokulungisa kanye nokuhlola

Uma ngabe itraki isifikele esikhathini lapho kumele ilungiswe, iyalungiswa kanti akumelwe ulinde kuze kube yisikhathi sokutshala, ngoba isikhathi ungalahlekelwa yisikhathi esibalulekile.

Amatraki kumele aseviswe kabili: isevisi okuvamile eyenziwa emvakwamahora ama-200 kuya ku-300, kanti lena enkulu yona kumele yenziwe njalo emvakwamahora angama-1 000.

## Isevisi yamahora ama-200-kuya ku-300

Le sevisi ifaka kuyo ukushintshwa kuka-oyela wenjini. Uwoyela wegearbox, umehluko, ukushayela kokugcina kanye noshintsho lwangaphambili nakho kuyahlolwa.

1. Faka uwoyela wenjini omusha kanye namafilter.
2. Faka ama-diesel filters amasha.
3. Geza ama-air filters. Uma unokungabaza, ashintshe.
4. Hlola amanzi ebhethri, geza amapali ngokucophelela uqinisekise nokuthi ibhethri liboshelwe laqina.
5. Irediyetha kumele ihlanzeke, okungenjalo itraki izoshisa ngokweqile.
6. Ileveli yamanzi kurediyetha kumele ibe sebudeni obufanele kanti futhi kumele kube nenani elifanele le-antifreeze.
7. Ifan belt kumele ibe sesimeni esihle.
8. Qinisekisa ukuthi ifan belt iqine ngokwanele, uma kungenjalo ingashelela bese injini ishisa ngokweqile.
9. Amapayipi onke enjoloba kumele abe sesimeni esihle futhi namakilampu nawo avikeleke.



Ukungasheshi kwakilashi.



Umphele wokuvikela esondweni lokugijimisa indophi elenzelwe ukuphakamisa okusindayo.



Irediyetha kumele ihlanzeke.



Kumele ufake idiesel filter entsha uma ulungisa inqola sakho.





Amapali ebhethri kumele ahlanzeke futhi aqine.



Amaphedali amabhriki kumele afanelaniswe bese eyaxhunywa.

10. Qinisekisa ukuthi konke ukulinganisela kwamawheel bearing kulungile futhi nama-bearing anamafutha anele.
11. Uma ikilashi ingasheshi kakhulu, uma kunjalo kumele kulungiswe ubude bufike ezingeni elifanele.
12. Linganisela amabhreki alingane ukuze akwazi ukubamba ngesikhathi esisodwa. Amaphedali kumele axhunyaniswe omabili.
13. Qinisekisa ukuthi ihandbrake isebenza ngokufanele.
14. Amavili nawo kumele abe sesimeni esihle sokusebenza futhi nomoya emavilini angaphambili nawasemuva ube sezingeni elifanele.
15. Qinisekisa ukuthi onke amanathi amavili afakiwe kuthi afaelwe aqina kahle.
16. Qinisekisa ukuthi amalambu aphambili nasemuva asebenza kahle ukuze itraki ibonakale kahle.
17. Faka amafutha kuzo zonke izingono zama-futha.
18. Qinisekisa ukuthi onke amadrawbar bolts afaelwe aqina kahle.
19. Gcwalisa itraki ngedizili ntambama, lokhu kuzovimbela ikhondenseshini etankini, ukuvimbela ukugcwala kwamanzi emgudwini kaphethiloli.
20. Bheka uqaphela ukuvuza kukawoyela, idizili noma amanzi bese uyalungisa lapho kunesidingo khona.

Isevisi enkulu kumele yenziwe emahoreni ayi-1 000 yenziwa umdayisi wetraki.

### Inkambiso yansukuzonke kanye neviki

Izinto ezithize etrakini yakho kumele zihlolwe nsukuzonke nanjalo ngeviki.

### Nsukuzonke

1. Hlola ileveli kawoyela.
2. Hlola ileveli yamanzi kurediyetha.
3. Qinisekisa ukuthi irediyetha ihlanzekile

nokuthi akunakungcola okuvimba ukudonswa kwamanzi.

4. Hlola ukuvuza kukawoyela.
5. Hlola ukuvuza kwedizili.
6. Hlola isimo sefan belt nokuthi iqine kahle na.

### Njalo evikini

1. Hlola konke okusohlwini lwansukuzonke.
2. Hlola amatheminali ebhethri uqinisekise ukuthi ahlanzekile futhi aqinile.
3. Hlola ileveli yamanzi ngaphakathi kwebhethri.
4. Qinisekisa ukuthi ama-air filters asesimeni esihle futhi ahlanzekile.
5. Hlola amabhreki ubona ukuthi ngabe asebenza kahle yini.
6. Hlola amabearing amavili angaphambili bese uwalinganisela ngokufanele uma kunesidingo.
7. Hlola umoya kuwo wonke amavili.
8. Hlola ukungasheshi kwekilashi.
9. Faka amafutha lapho kudingeka khona.
10. Geza itraki.

### Amasu okuvikeleka kumshayeli wetraki

1. Umshayeli wetraki kumele abe nezimpepha zokushayela ezisemthethweni.
2. Akumele kulayishwe abagibeli, ngaphandle-ke uma itraki inendawo yokulayisha umgibeli.
3. Yonke imipheme yokuvikeleka kumele ibe sendaweni efanele etrakini naku-implementation. Qinisekisa ukuthi izembozo zeshafti le-PTO zisendaweni efanele.
4. Kumele kuthotshelwe yonke imithetho yomgwaqo.
5. Umshayeli akumele ashayele itraki uma ethinte amponjwana noma edle izidakamizwa.
6. Hlala njalo uqaphile futhi unakekele. Khumbula futhi ukuthi: itraki alakhelwanga ukugijima, kepha lakhelwe amandla.

### Ukuhlolwa nokulungiswa kwamaplanter/imishini yokulima

1. Qinisekisa ukuthi amabholthi etow bar axhunywe kufremu aqinile.
2. Uma kuyiplanter ehamba ngomoya, iblower kumele ihlolwe ngokuphelele.
3. Uma kuwuhlobo lwegravity-box, ibhokisi kumele lihlolwe ngokuphelele ukuqinisekisa ukuthi konke kusesimeni esihle sokusebenza.
4. Hlanza ibhokisi kahle ngaphambi nase-mvakokulisebenzisa.
5. Hlola wonke amapayipi embewu nakamanyolo ukuthi akunalapho kuvuza khona na, bese uqinisa lapho kunesidingo khona.
6. Idistribution tower kumele ihlolwe futhi ihlanzwe.
7. Lungisa loku okugugayo nokuphelayo kumashare points wonke uma kunesidingo.
8. Qinisekisa ukuthi amapressure wheels kanye namatines alandelana ngokufanele, kungenjalo kungavela izinkinga embhedeni wembewu.
9. Khumbula ukuphakamisa iplanter emhlabathini uma uguqula, kungenjalo amatines azojijeka.
10. Wonke amaketango kumele ahlolwe bese kufakwa amasha uma kunokumosheka okukhulu.
11. Hlola amawheel bearings bese ufaka amasha uma unezinsolo.
12. Hlola futhi amapressure-wheel bearings uwafanelanise uma kunesidingo.
13. Faka amafutha kuzo zonke izingono zama-futha nsuku zonke, ngoba lezi zingxenyane zisebenza endaweni enothuli oluningi.

I-athikhili ibhalwe nguJurie Blom, Umakhenikhi osethathe umhlaphansi kanye nombhali wePula/Imvula. Uma ufuna imininingwane egcwele thumela i-imeyili kujurieblm@gmail.com.

# Ubuhle bokutshala izilimo ezenziwe ngcono ngokofuzo kumafama alima endaweni encane



**Uhlobo lwaseDukuza – amafama asekhaya asebenza njengeco-operative.**



**Uhlobo lwaseDukuza – indawo engachelelwanga.**



**Uhlobo lwaseDukuza – imihlaba engathilwa nehlanzekile.**



**Uhlobo lwaseEmangweni – uPatrick Nxumalo emi esizeni somhlaba wakhe.**



**Uhlobo lwaseMhlungweni – umonakalo odalwe yisichotho.**



**Uhlobo lwaseMhlungweni – ukushoba kombila ngaphambi kwesichotho esacekela phansi lesi silimo.**

**N**gokusungulwa kwamaqembu okufunda ezweni lonke, ahanjiswa wuHlelo lweGrain SA lokuThuthukiswa kwaMafama, sesibona inqubekelaphambili esheshayo ngezindlela kanye namasu asetshenziswa ngamafama alima kancane.

Kuyathokozisa futhi kunika ugqozi ukubona amafama asafufusa esebenzisa izindlela zesimanje zokulima. Kule-athikhili sizobheka imiphumela kanye nokutholakele ohlolweni olwenziwe kumafama alima kancane esifundeni saKwaZulu-Natali. Bekunezinhlalo eziyishumi zohlolo ebeziphethwe nguJurie Mentz wakwaGrain SA, zona ebe zigxile ebuhleni bokusebenzisa ummbila oRoundup Ready kanye nezinkambiso zokuthila kancane nokulawulwa okuhle kokusetshenziswa kwamakhemikhali.

## Uhlobo lwakwaDukuza eduzane naseBergville, KwaZulu-Natali

Lolu hlolo lwenziwa kusetshenziswa izinkambiso zokungathili. Ngaphambi kokutshala, bekunotshani obuningi obaziwa nge*week*. Kulandelwa izinhloso zalolu hlolo kwatshalwa ummbila oRoundup Ready ereyithini yokuhlwanyelwa kwembewu ka-45 000 wezitshalo ihektha ngalinye. Ngenkathi kutshala kwahlwanyelwa u-1,7 wamalitha eRoundup Powamax ihektha ngalinye. Lokhu kwasebenza kahle ngokushisa ukhula okwaholela ekutheni ngesikhathi sokuvela kombila wawumncane kakhulu umncintiswano phakathi kwezilimo nokhula. Ummbila wenza kahle kakhulu ngesigaba sokuqala sokukhula. Sithe lapho isilimo sesifika emadolweni kwabuyi kwachelelwa u-1,7 omunye wamalitha eRoundup ihektha ngalinye. Lokhu kwenziwa kanyekanye ngesikhathi kuchelelwa i-200 kg LAN we*top dressing* kamanyolo ihektha ngalinye.

Emvakwezinsuku ezingama-60 besekuphinde kwamila *icrab grass* kanye nolunye ukhula olwaziwa nge-*‘morning glory’*. Ngakho-ke kuye kwamele ukuba kuchelelwe omunye u-1,7 wamalitha weRoundup ihektha ngalinye kanye ne-24D eyaxutshwa khona lapho. Umphumela wohlolo wawumuhle ikakhulukazi uma sibheka ukuthi lwalulungi ukhula ngenkathi kutshalwa. Uma sesibheka emuva kubonakele ukuthi ngabe kube ngcono ukube bekuye kwachelelwa ngeRoundup amaviki amabili ngaphambi kokuba kutshalwe.

## Okubalulekile:

- Uhlobo lolu lufakazele ukuthi akudingeki mishini emikhulu nebizayo ukuze kutshalwe imbewu ye-GM ezimeni zokungathili.
- Kwatshalwa kusetshenziswa amageja. Le mishini

inesikhwama esilenga ehlobo sembewu. Ngenkathi igeja lingenelela emhlabathini imbewu iwela emhlabathini onobunzulu obukaliwe.

- Kuchelelwe ngesandla kusetshenziswa izifafazi ezinesikhwama esithwalwa ehlobo.
- Akungenanga traki emhlabeni okulinywa kuwona, kanti noma kunjalo kutholwe isilimo esihle ngoba kusetshenziswe imikhiziqo yesimanjemanje.

## Uhlobo lwaseEmangweni eduzane ne-Est-court, KwaZulu-Natali

Lolu hlolo lwenziwe esizindeneni sikaPatrick Nxumalo osebe yilunga leqembu lokufunda lasEmangweni Grain SA iminyaka emihlanu manje, kanti futhi usethuthukise nendlela alima ngayo eminyakeni edlule.

Isiza lesi silungiselelwe futhi sathilwa kusetshenziswa idiski kuphela. Kube sekuhlwanyelwa ke kusetshenziswa amakhuba kanye nembewu yombila eRoundup ngereyithi yezitshalo ezingama-45 000 ihektha ngalinye. Ngoba umhlaba uye wadiskwa akubanga nasidingo sokuba kuchelelwe ikhemikhali elishisayo. Kuthe ukuba kumile ukhula kwase kuchelelwa u-1,7 wamalitha eRoundup Powamax kanye neKarare *pesticide*. Ezinsukwini ezingama-40 ezilandelayo, kuchelelwe futhi omunye u-1,7 wamalitha eRoundup kanye nephesenti elincane nje le-24D engezwelelwe engxubeni. Ukhula bolungenamandla kakhulu kepha bolubonakala esizeni. Okulandelayo, u-200 kg weLAN uye wachelelwa njenge*top dressing* ngenkathi ummbila ungubude obungama-30 cm. Konke ukufafaza kwenziwe ngesandla kulesiza lesi kusetshenziswa isifafazi esinesikhwama esigaxwa ehlobo.

## Izithasiselo:

- UMnu. Nxumalo uthole isilimo esihle ohlolweni.
- Amakhemikhali eRoundup kanye nembewu yeRoundup kusebenze kahle kakhulu.
- Amalunga eqembu lokufunda lasEmangweni nawo asemi ngomumo, azimisele ukuqala asebenzise imikhiziqo lena emihlabeni yabi ngale sizini ezayo.

## Uhlobo lwaseMhlungweni eduze nase-White Mountain, KwaZulu-Natali

Lolu hlolo lwatshalwa kwesinye seziza ezinkulu eziphethwe nguMnu. Mtshali weqembu lokufunda laseNtabamhlophe. Lutshalwe kusetshenziswa ummbila oRoundup Ready ngetraki encane kanye ne*lift* ejwayelekile ye*three point planter*. Ukulungiselelwa komhlaba kwenziwe ngetraki kanye nediski kepha kuchelelwe ngesandla.

Ngenkathi kutshalwa kuye kwachelelwa u-1,7 wamalitha eRoundup Powamax ihektha





ngalinye kanye no-100 ml weKarare ihektha ngalinye. Isilimo siye sakhula kahle kakhulu kanti nokhula nalo bolucindezelwa ngendlela enelisayo. Emvakwezinsuku ezingama-35 kube khona ukhula olumilayo, ikakhulukazi iwater grass kanye necrab grass. Ngalesi sizathu-ke, kuye kwaphinde kwachelelwa omunye u-1,7 wamalitha engxube yeRoundup kanye neCervion ihektha ngalinye.

#### Okuphawuliwe:

Amakhemikhali asebenze kahle kakhulu kanti nesilimo naso besibukeka sithembisa kwaze kwavela isichotho sona ngeshwa esadala umonakalo omkhulu ngesigaba sokugwala kohlamvu. Okubike ukuthi isilimo esasithembisa sashabalala kanti akunahlolo olutheni olungenziwa manje.

#### Isithasiselo sakho konke

- Kulo lonke uhlobo bekunzinkomba ezinika ithemba futhi nezigqugquzelayo kulezi zinkambiso.
- Iningi lalezi ziza eziyishumi zohlolo zibe nomphumela omuhle ngonyaka wokuqala.
- Umphumela obuthembisa kunayo yonke kube yindlela amalunga eqembu lokufunda athakasele ngayo le ndlela yokusebenza kanye namandla amapulazi amancane uma kusetshenziswa imikhiziso yesimanje efana neRoundup.

#### Uma usebenzisa amakhemikhali eRoundup kubalulekile ukukhumbula:

- Chelela kuphela amakhemikhali eRoundup kumbewu yeRoundup esemthethweni.
- Isikhathi nje kuphela lapho kuvikelekile ukusebenzisa amakhemikhali eRoundup ngaphandle kokutshala imbewu yeRoundup yima isetshenziswa njengekhambi elishisa ukhula emavikini ambalwa ngaphambi kokuba kutshalwe imbewu.
- Isikhathi esihle sokuchelela iRoundup yima ukhula lusesigabeni sokukhula futhi luyi-10 cm ubude.
- Isebenza kahle kakhulu futhi uma ukhula kusehlaza futhi lungenancindezi.
- Iroundup yikhemikhali elingakhethi ngakho-ke lizosebenza eningini, uma kungesilo lonke ukhula emhlabeni olinywayo.
- Kubalulekile kakhulu ukuba kusetshenziswe amanzi ahlanzekile kanye nebuffer additive ngenkathi kuxutshwa amakhemikhali ngoba ingaphelelwa ngamandla uma amazinga epH engalunganga ngenxa yamanzi angcolile.
- Khumbula:
  - Phatha amakhemikhali ngokucophelela;
  - Abeke lapho angeke atholwa khona yizingane; futhi
  - Geza izandla zakho emvakokuwasebenzisa.

**I-athikhili ibhalwe nguGavin Mathews, iBachelor in Environmental Management. Uma ufuna imininingwane egcwele thumela i-imeyili ku-gavmat@gmail.com.**

# I Grain SA i-inthavyuwa... uDaliwonga Nombewu



**Y**azana noDaliwonga Nombewu, umfama osemncane ozimisele nokhuthela waseTsolo Mpumalanga neKapa. UDaliwonga uzimisele ukuba ngumfama wenzuzo eminyakeni emihlanu ezayo kanti ufuna nokudala amathuba omsebenzi kulabo abangasebenzi ngenhloso yokuphucula umnotho wezwe lethu.

#### Ngabe ulima kuphi futhi mangaki amahektha owalimayo na? Ulima ngani na?

Ngilima eGungululu endaweni yaseTsolo (ngaphansi kukaMasipala wasekhaya waseMhlontlo, esifundeni saseMpumalanga neKapa). Kule sizini ngitshale amahektha ayi-8 ommbila kanti kule sizini ezayo ngizokhiqiza amahektha ayi-58 ommbila. Lokhu konke ngosizo lwenduna yasendaweni kanye nomphakathi bona abangabele amahektha angama-50 omhlaba obungasetshenziswa eminyakeni engama-25 edlule.

#### Ngabe yini ekugqugquzelayo/ekunika ugqozi?

Umama wami nguyena ongigqugquzelayo. Uphila ngokukhiqiza imifino kanye nommbila kumahektha ama-2,5 omhlaba. Ngikhule ngimelekelela ngokutshala kanye nokunisela (ngesandla) nsuku zonke uma ngibuya esikoleni.

#### Chaza amandla kanye nobuthakathaka bakho

**Amandla ami:** Ukuzinikela kanye nokuzimisela ebhizinisini lokulima kanti nokukhiqizela inzuzo yikona okungamandla ami. Ngiba namagoli engiwabekela isikhathi.

**Ubuthakathaka bami:** Ubuthakathaka bami obukhulu ukungabi namali kanye namakhono okuhambisa ibhizinisi.

#### Besingakanani isivuno sesilimo sakho ngenkathi uqala ukulima? Singakanani isivuno sakho manje?

Ngenkathi ngiqala ukulima ngangikhiqiza amathani ama-3 ihektha ngalinye kanti

manje sengikhiqiza 5 amathani ihektha ngalinye.

#### Ucabanga ukuthi ngabe yini ebe nomthelela omkhulu enqubekeleni-phambili kanye nesasasa lakho?

Ukuthenga imishini kanye nama-implements wonke adingekayo ukukhiqiza kanye nokuba ngibizwe ngezinkontilleka yikona okungiphe ulwazi olunzulu. Izeluleko engizithole kwa-Grain SA kanye nezingqeqesho nazo zibe nomthelela omkhulu empumelelweni yami.

#### Ngabe uthole ngqeqesho yini kuze kube yinamhlanje. Ungathanda ukuqhubeka uqeqeshelwe ini?

Ngiqede i-Introduction to Maize Production Course, i-Tractor Maintenance Course kanye ne-Contractors Course. Ngingathanda ukwenza i-Farm Management and Bookkeeping Course.

#### Ngabe uzibona ukuphi eminyakeni emihlanu ezayo? Ungathanda ukuzuzana ntoni na?

Eminyakeni emihlanu ezayo ngingathanda ukuzibona ngingumfama wenzuzo okhiqiza ngaphezu kwamathani ama-5 ommbila.

#### Seluleko sini ongasinika amafama amancane asafufusa?

Njengoba ngimncane nginje, ngiyafisa ukuthi abanye ontanga nabo bangalandela ezinyathelweni zama bazimele bese futhi bedala amathuba emisebenzi ngenhloso yokuqasha laba abangasebenzi ukuze sikwazi ukuphucula umnotho wezwekazi lethu.

**I-athikhili ibhalwe nguLawrence Luthango, Umqondisi wezeNthuthuko oHlelweni lwakwaGrain SA lokuThuthukiswa kwaMafama. Uma ufuna imininingwane egcwele thumela i-imeyili ku-lawrence@grainsa.co.za.**

## Ithimba labahleli

### GRAIN SA: BLOEMFONTEIN

Suite 3, Private Bag X11, Brandhof, 9324  
7 Collins Street, Arboretum  
Bloemfontein  
▶ 08600 47246 ◀  
▶ Fax: 051 430 7574 ◀ www.grainsa.co.za

### UMHLELI OMKHULU

#### Jane McPherson

▶ 082 854 7171 ◀ jane@grainsa.co.za

### UMHLELI UKWABA

#### Liana Stroebel

▶ 084 264 1422 ◀ liana@grainsa.co.za

### IMIDWEBO, ISAKHIWO KANYE NOKUSHICILELA

#### Infoworks

▶ 018 468 2716 ◀ www.infoworks.biz



### IPULA IMVULA IYATHOLAKALA FUTHI NANGALEZI ZILIMI EZLANDELAYO:

#### IsiZulu,

IsiBhunu, isiNgisi, IsiTswana, IsiSuthu,  
IsiSuthu saseNyakatho, nesiXhosa.

## Uhlelo lweGrain SA LokuThuthukisa amaFama

### ABAQONDISI BENTUTHUKO

#### Danie van den Berg

Free State (Bloemfontein)

▶ 071 675 5497 ◀ danie@grainsa.co.za

#### Johan Kriel

Free State (Ladybrand)

▶ 079 497 4294 ◀ johank@grainsa.co.za

▶ Office: 051 924 1099 ◀ Dimakatso Nyambose

#### Jerry Mthomboti

Mpumalanga (Nelspruit)

▶ 084 604 0549 ◀ jerry@grainsa.co.za

▶ Office: 013 755 4575 ◀ Nonhlanhla Sithole

#### Naas Gouws

Mpumalanga (Belfast)

▶ 072 736 7219 ◀ naas@grainsa.co.za

#### Jurie Mentz

KwaZulu-Natal (Vryheid)

▶ 082 354 5749 ◀ jurie@grainsa.co.za

▶ Office: 034 980 1455 ◀ Sydwell Nkosi

#### Ian Househam

Eastern Cape (Kokstad)

▶ 078 791 1004 ◀ ian@grainsa.co.za

▶ Office: 039 727 5749 ◀ Luthando Diko

#### Lawrence Luthango

Eastern Cape (Mthatha)

▶ 076 674 0915 ◀ lawrence@grainsa.co.za

▶ Office: 047 531 0619 ◀ Cwayita Mpotyi

#### Liana Stroebel

Western Cape (Paarl)

▶ 084 264 1422 ◀ liana@grainsa.co.za

▶ Office: 012 816 8057 ◀ Melercia Kotze

#### Du Toit van der Westhuizen

North West (Lichtenburg)

▶ 082 877 6749 ◀ dutoit@grainsa.co.za

▶ Office: 012 816 8038 ◀ Lebo Mogatlanyane

#### Vusi Ngesi

Eastern Cape (Maclear)

▶ 079 034 4843 ◀ vusi@grainsa.co.za

▶ Office: 012 816 8070 ◀ Sally Constable

# OMUSHA ONGUWENA – ukufinyelela emazingeni amasha!

**N**gabe uzizwa unengcindezi? Ubindekile? Ukhathazekile? Uyayileyileka? Awunamdlandla? Sonke isnokuzizelwa singale ndlela ngezinye izikhathi. Ucwangingo lukhombise ukuthi abasebenzi abakhathazekile badla inkampani u-20% - 25% wenzuzo yonyaka ngomkhizizo olahlekayo.

Sisho ukuthini na uma sikhuluma ngokuphatheka kahle ngokwemizwa futhi kungani kumele kube yinto ebalulekile kuwena na?

Ingingilabantu licabanga ukuthi “Yindlela engidalwe ngayo le” noma “Mhlawumbe kuzomele ngiphile nayo ngoba akukho okunye okudlula loku”. Abanye abantu bacabanga ukuthi ukuphila kahle ngokwemizwa akusiyo into engenzeka nakancane nje, abanengi bayayifisa kepha bambalwa kakhulu abayitholayo!

Ukuphila kahle ngokwemizwa noma ukuphatheka kakhle kusho ukuba nokuthula okuphelelisiwe ngalokhu oyikho, lokhu okwenzayo, nalapho uya khona, wena qobo lwakho kanye nasebudlelaneni bakho nalabo ophilisana nabo – nase-msebenzini imbala!

Kuwukuzizwela unokuthula ngalapho uqhama khona, lapho ukhona manje nalapho uya khona ngempilo yakho.

Impilo akumelanga ibe umunyo wemizwa. Kunalokho abantu abanengi abakucabangayo, ukuphila kahle ngokwemizwa kuyakhonakala njengoba kwenzeka ngokomzimba. Ngokomoya, okwemzwa kanye nangokwengqondo, umuntu kumele “ondliwe” futhi anakekelwe kahle.

Ukungaphili kahle ngokwemizwa (ungazizweli ukujabula) kuholela kulokhu okulandelayo:

- Ukulova emsebenzini;
- Ukwenza umsebenzi ongagculisi;
- Ukuphelelwa usinga;
- Ukungabi nagqozi kanye namandla;
- Ukukhathala nokungakhathali;
- Imiphumela emibi ekuxhumaneni kanye nobudlelwano emsebenzini;
- Ukuntshontsha kanye nokukhwabanisa;
- Ukuhluthuka kwemzwa kanye nokungaziphathi ngendlela eyamukelekile; futhi
- Nokuxoshwa okungapheli kwabasebenzi

bese kuqashwa abanye esikhundleni salabo abaxoshiwe.

Kuma-athikhili alandelayo sizothatha uhambo nawe lapho uzofinyelela emazingeni amasha empilweni enhle yemizwa yakho. Thina sizoba yithikithi lakho lempilo enhle ngokwemizwa.

Uhambo lwethu ekufinyeleleni kuwena omusha ngokwempilo enhle yemizwa luzoqala ngokubheka indlela obhekana ngayo nezingxabano empilweni yakho kanye nomthelela eba nawo empilweni yakho – ekhaya kanye nasemsebenzini. Ukuxhumana kuqala futhi kugcina ngawe.

Okwesibili sizobhekana nokusetshenziswa kwezidakamizwa nezizathu ezenza sizizwele singcono uma siqeda ukuphuza ugologo noma ngabe ekuseni uma sivuka izinkinga zethu zisenkulu njengakuqala. Sizokupha amasu amasha ongawasebenzisa ukuze uzizwele ungonono uma kuba sekwenyukela.

Okwesithathu sizobhekana ubudlelwane obuhle phakathi emindenini nokuthi isimo sakho sengqondo sinomthelela emndenini wakho, kanjalo nomndenini nawo unomthelela esimeni sakho sengqondo.

Okwesine sizobhekana indlela ophatha ngayo amazinga okucindezeleka empilweni yakho...yabo ingcindezi ingalawuleka!

Okokugcina, ukuqinisekisa impilo enhle ngokwemizwa kusho ukuthi kumele ucabange ngezezimali empilweni yakho. Kaningi uma uzizwela ungenamsebenzi lokho kubonakala ngisho nasendleleni ophatha ngayo izimali zakho.

**Hlanganyela kanye nathi kulolu hambo lokufinyelela amazinga amasha...ungaphila kahle ngokwemizwa – masikwenze kwenzeka!**

*IPROCARE yinhlango yochwepheshe be-psycho-social lapho bezisebenza khona. Ithimba lePROCARE linika indlela ephelilesiwe ekubhekane nezinkinga ezipsycho-social. IPROCARE inezinkonzo ezinzi ezinhlukile zokukhansela, ukuqeqesha kanye nezinhlelo zamakhono empilo.*

**I-athikhili ibhalwe nguPetra Nel wasePROCARE. Uma ufuna imininingwane egcwele thumela i-athikhili ku-petra@procare.co.za noma uthintane nabakwaPROCARE ku-0861 7762273 noma u-021 873 0532.**



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