

# PULA IMVULA

GROWING FOOD • PEOPLE • PROSPERITY

LEKWALO LA GRAIN SA LA BALEMIOTLANA



*Setshwantsho: Benro Botha*

## Jaaka o ka rulaganya tekanyetso ya BOKANA BA THOBO E O KA E

**K**A GO DIRISA KITSO E E LATELANG E LE TSHU-PETSOTSELA, O KA LEKANYETSA BOGONGWE BA BOKANA BA LETSENO LA MADI BO O KA BO BONANG KA SETLHA. NAGANA GORE GO NA LE DIPHETHOGOPETHOGO TSE DI KA FETOLANG MAEMO A TEKANYETSO YA BOGONGWE BA BOKANA BA KUMO E E KA BONWANG. JAAKA O ATUMELA NAKO YA THOBO, KGONO YA GO NETEFATSA BOKANA BA KUMO E E KA BONWANG E A OKETSEGA, KA GORE BOKANA BA PALO YA DIPHETHOGOPETHOGO TSA NNTE E A FOKOTSEGA.

Kgaolo ya dipatlisiso e e lebeletsweng ka go tsenelela ke go rulaganya tekatekanyetso ya bokana ba thobo e e ka bonwang. Go tlhabolotswe di-kaelo ebile di fetotswe gape le gape, mme kitso e e lekaneng ya, mo go tse dingwe, kgaolo ya bolemirui le lefelo la kgaolo ya naga e e diriswang

di sala di le dintlha tse di leng bothokwa go tlhomamisa bokana ba kumo e e ka bonwang.

Ntlha e e botlhokwa thata ke boima ba mmoko wa tlhaka. Ga bo fetoce fela go ya ka sethla le sethla, mme gape le mo gare ga sethla se le sengwe. Tota le fa tlhaka e omile, dintlha jaaka go bola ga seako le disenye tse dingwe di ka senya mmoko go fetola boima ba ona. Ditshupetso ke jaaka go latela:

### KORONG

Fa re lebelela korong palo ya tlhaka e e siameng e ka nna:

- Masimo a a sa nosetsweng – palo e e ka nnang 3 500/100 g
  - Masimo a a nosetswang – palo e e ka nnang 3 000/100 g
- Didiragaloo tse pedi tse di tlwaetsweng, go jwala ka go gasetsa le go jwälwa ka go lokela mo mmung, di supiwa ka go kgaoganya go lekanyetsa bokana ba thobo.

## Jaaka o ka rulaganya...

**Go jwala ka go gasetsa kgotsa go jwalwa ka go lokela mo mmung ka dibopelelo tse di atumelaneng**

1. La ntlha, palo ya diako kgotsa metlhaka mo kgaolosekwere sa metra ( $m^2$ ) e a tlhomamiswa.
2. Palogare ya tlhaka mo seakong e tlhomamiswa ka go bala tlhaka e e leng mo diakong tsa korong tse di tseilweng e le teko, tota e le diako tse dikgolo le tse dinnye go lekalekantsha teko. Fa tlhaka e ise e ome gore e balwa ka tshwanno, palogare e e siameng ya mofuta wa korong o o jwetsweng e ka diriswa.
3. Sekaelo se se latelang se ka diriswa go balabala bogongwe ba bokana ba thobo ya korong fa e jwetswe ka go e gasetsa:

$$\text{Masimo a a nosetsweng: } \frac{\text{Diako kgotsa metlhaka mo } m^2 \times \text{palo ya tlhaka mo seakong}}{3\,500} = \text{t/ha}$$

$$\text{Masimo a a nosetsweng: } \frac{\text{Diako kgotsa metlhaka mo } m^2 \times \text{palo ya tlhaka mo seakong}}{3\,000} = \text{t/ha}$$

### Korong e e jwetsweng mo dibopelelong tse di kgaoganweng

1. Tlhomamisa bokana ba go katogana ba dibopelelo jaaka go latela: Go lekalekantshwa go katoga ga dibopelelo tse 10, ka mafoko a mangwe go tloga mo bopelelong ya 1 go fitlha mo bopelelong ya 10 go tlhomamisa bokana ba go katogana ba dibopelelo.

#### Sekao

Bokana ba dibopelelo tse 10 = 3,5 m

$$\text{Bokana ba go katogana ba dibopelelo ke } \frac{3,5 \text{ m}}{10} = 0,35 \text{ m}$$

2. Go tseiwa palo ya diako kgotsa metlhaka mo popelelong ka kgaolo e e leng 3 m.
3. Go tlhomamisa palo ya tlhaka mo seakong ka go bala diako tsa teko, ka go tsaya tse dikgolo le tse dinnye ka go lekalekana. Fa tlhaka e ise e ome gore e balwa ka tshwanno, palogare e e siameng ya mofuta wa korong o o jwetsweng e ka diriswa.
4. Sekaelo se se latelang se ka diriswa go balabala bokana ba thobo ya korong fa e jwetswe ka dibopelelo tse di kgaogangwang:

$$\text{Masimo a a nosetsweng: } \frac{\text{Diako kgotsa metlhaka mo } 3 \text{ m} \times \text{palo ya tlhaka mo seakong}}{\text{Bophara gare ga dibopelelo (m)} \times 3 \times 3\,500} = \text{t/ha (yield)}$$

$$\text{Masimo a a nosetsweng: } \frac{\text{Diako kgotsa metlhaka mo } 3 \text{ m} \times \text{palo ya tlhaka mo seakong}}{\text{Bophara gare ga dibopelelo (m)} \times 3 \times 3\,000} = \text{t/ha (yield)}$$

### MMIDI

1. Tshupetso ya mmoko ka 0,28 g e ka diriswa go tlhomamisa bogare ba boima ba mmoko ba mmidi fa tlhaka e ka balwa go kgoni go balabala bogongwe ba bokana ba thobo e e ka bonwang.
2. Fa tlhaka e sa kgone go balwa, o ka tsaya 120 g go 180 g ka seako, ga ya ka bontsi le bokana ba diako tse di diriswang.
3. Pele o tshwanetse go tlhomamisa palogare ya diako mo kgaolong e e leng 10 m. Fa dimela di sa palo yle mo maemong a botala, dintlhla jaaka tikologo mo di melang, kgoni ya go thunya diako tse pedi le go feta mo semeleng se le sengwe di tshwanetse go lebelelwka ka kelothoko.
4. Tlhomamisa boimagare ka digeramo mo seakong se le sengwe.
5. Sekaelo se se latelang se ka diriswa go balabala bogongwe ba bokana ba thobo e e ka bonwang:

$$\frac{\text{Palo ya dioka mo } 10 \text{ m}}{1\,000} \times \frac{\text{digeramo ka seako}}{\text{Bophara gare ga dibopelelo}} = \text{t/ha (yield)}$$



### DISONOBOLOMO

1. Dirisa sekaelelo se se latelang go tlhomamisa boimagare ba tlhaka ka tlhogo e le nngwe fa e sa le metsi pele ga kgato ya fa tlhaka e ka balwa.

Jaaka go ntse/dimela/ha	Digeramo tsa tlhaka/tlhogo
50 000	34
40 000	41
30 000	48
20 000	55
10 000	62

2. Dirisa sekaelelo se se latelang go tlhomamisa palo ya tlhaka mo tlhogo:

- Lekanyetsa bodiko ba tlhogo.
- Lekanyetsa bodiko ba mo tlhaka e leng fa go tlhokwa.
- Bala tlhaka mo kgaolong e e leng  $cm^2$  mme kgaoganya palo e ka 10 go bona palo ya tlhaka ka  $cm^2$ .
- Balabala kgaolo e e umang jaaka go latela:

$$\begin{array}{lll} \text{Digeramo tsa tlhaka/tlhogo} & = 15 \text{ cm} \\ \text{Bodiko ba mo tlhaka e leng} & = 5 \text{ cm} \\ \text{Bogothe ba kgaolo} & = 15 \times 15 \times 0,79 & = 177,75 \text{ cm}^2 \\ \text{Kgaolo e e se nang tlhaka} & = 5 \times 5 \times 0,79 & = 19,75 \text{ cm}^2 \\ \text{Kgaolo e e nang tlhaka} & = 177,75 \text{ cm}^2 - 9,75 \text{ cm}^2 & = 158,00 \text{ cm}^2 \end{array}$$

- Atisa palo ya tlhaka ka sekewere sa sentimetara ( $cm^2$ ) ka bokana ba kgaolo go bona palo ya tlhaka ka tlhogo.
- Atisa palo ya tlhaka mo tlhogong ka boimagare ba tlhaka e le nngwe go kgoni go tlhomamisa boima ba tlhogo. Dirisa boima bo bo leng 0,04 g ba tlhaka e le nngwe e le tshupetsotsela.

3. Bala ditlhogo mo 10 m.

4. Lekanyetsa bophara gare ga dibopelelo.

5. Dirisa sekaeelo se se latelang go balabala bokana ba thobo:

$$\frac{\text{Palo ya dithhogo mo } 10 \text{ m}}{1000} \times \frac{\text{digeramo ka tlhogo}}{\text{Bophara gare ga dibopelelo}} = \text{t/ha (yield)}$$

## DINAWA LE DISOYA

Dirisa dikgato tse di latelang go rulganaya tekanyetso ya bokana ba thobo ya dinawa le disoya:

1. Thhomamisa palo ya dimela ka 10 m le bokanagare ba go katogana ga dipopelelo.

$$\text{Palo ya dimela ka } 10 \text{ m} \div \text{bokanagare ba go katogana ga dipopelelo } 1000 = \text{dimela/ha}$$

2. Thhomamisa palo ya makape ka semela ka peo ka lekape.

Disoya,  $\pm 1,8$  peo/lekape: Boima:  $\pm 0,16$  g/peo

Dinawa: Peo/lekape le boima/peo go fetoga go ya le mofuta wa dinawa:

Mofuta wa tse ditshweu tse dinnye tse di lokelwang mo dithining: Boima:  $\pm 0,19$  g/peo

Mofuta wa tse dihubidu ka maronthotho: Boima:  $\pm 0,47$  g/peo

3. Dirisa boima ka semela ka go dirisa ditshupetso tsa mofuta wa dimela, mme ka dinako tsotlhe nagana dintlhla tse di latelang:

- Go lekalekana ba go mela le botelele ba dimela.
- Mmala le ponalo ya dimela.
- Maemo a metsi (komelelo kgotsa metsi go feta).
- Bolaodi ba mefero, ditsenekegi le malwetse.

4. Ditshupetso tsa maemo a dimela:

Dinawa:	Mofuta wa dinawa tse dikgolo	Mofuta wa dinawa tse dinnye
Kgaolo ya Bothhaba	$\pm 120\ 000$	$150\ 000 +$
Kgaolo ya Bogare	$\pm 100\ 000$	$\pm 140\ 000 - 150\ 000$
Kgaolo ya Bophirim	$\pm 80\ 000 - 100\ 000$	$\pm 120\ 000 - 140\ 000$
Disoya:		
Kgaolo ya Bothhaba	$\pm 300\ 000 - 400\ 000$	
Kgaolo ya Bogare	$\pm 280\ 000 - 300\ 000$	
Kgaolo ya Bophirim	$\pm 280\ 000 - 300\ 000$	

5. Jaanong o ka lekalekantsa bokana ba thobo ka go dirisa sekaeelo se se latelang:

Dimela/10 m  $\div$  bophara gare ga dipopelelo  $\times$  boima/semela (g/semela)  $\div$  1000 = tono/ha

6. Thhomamisa bokana ba tatlhego ka tiragalo ya go roba jaaka go latela:

- Lekanyetsa go balabala ga bokana ba thobo ya dinawa ka ntlha ya 80%.
- Lekanyetsa go balabala ga bokana ba thobo ya disoya ka ntlha ya 85%.
- Gape gakologelwa go tsaya bogodimo ba thipa ya go sega ya sedriswa sa go roba fa o lekanyetsa bokana ba thobo ya disoya.

Santam Agriculture e tlhola e batlisisa go tlhamalatса mekgwa ya go tlomamisa ka go lekana tshenyego mabapi le sefako le ditekanyetso tsa bokana ba thobo ya mefutafuta ya dijwalwa. Dipatlisiso ga di bonwe go fela. Dikgaolesa go tsotlhe go ka se tlhole go kgonegwa. Tiriso ya madi jalo e tshwanetse go tlhokomelwa ka go kelotlhoko. ■

KOBIE DE BEER, MOLAODI WA PELE. TIRAGALO YA INSHORENSE (THOBO), BOLEMIRUI KA SANTAM



## MAFOKO A GA...

Johan Kriel

**K**A NAKO E MOLAETSA O O NE O KWALWA, E NE E LE NAKO YA GO JWALA MO KGAOLONG YA GO JWALA KA SELEMO. LE GALE, DIDIRISWA TSA GO JWALA DI NE DI SA DIRISWE KA GORE GO NE GO LE METSI GO FETA KA NTLHA YA GORE KGAOLONG YA RONA E NE E NOSITSWE KE PULA E E NENG E NA KA LETSATSI LE LETSATSI. DIJWALWA TSE DI NENG DI SETSE DI JWETSWE DI NE DI BOLAIWA KE METSI. GO NTEMOSITSE GORE MAEMO A DILO A KA FETOGENA KA BONAKO JANG. SEGAJAJA SA COVID-19 LE MOKUBUKUDU KA PHUKWI 2021 DI SUPILE GAPE GORE DILO DI BOKOA JANG.

Baumi ba tlaa tshwanna go tsenelela boteng, go loga maano ka tlhalo-ganyo go kgona. Ditshupetso tse di ka thusang ke tseo:

1. Itse gore om batla mofuta ofe wa bolemirui. Ga o kgone go jwala mmidi mo polaseng ya dinku mo kgaolong ya Karoo.
2. Itse kgono ya masimo a gago. Ka tlholtlwa ya ditokelelo e e yang godimo gape le gape, ga o kgone go leka go jwala dijwalwa mo masimong a a nang kgono ya bogare.
3. Go boloka metsi go bothlkowa fa o batla go jwala dijwalwa ka kgono.
4. Mefuta ya segompieno ya go suga mmu e a kgonisa. Go tlosa dilaga tsa go bataolwa go bothlkowa go kgona mebu ya gago go supa kgono e e rileng.
5. Tlhopho ya mefuta ya dijwalwa le nako ya go jwala go bothlkowa go kgona go simolola go roba ka nako e e tshwanetseng.
6. Go tsholetsa maemo a diterekere le didiriswa tsa gago go bothlkowa go kgona go dira tiro e e tlhokwang ka nako e e rileng.
7. Ttlaa gatelelwaa go simolola go dirisa madi a gago go duela kgaolo ya ditokelelo ka gore go kgona go adima madi otlae a tlhokwang go duela ditokelelo tsotlhe go ka se tlhole go kgonegwa. Tiriso ya madi jalo e tshwanetse go tlhokomelwa ka go kelotlhoko.
8. Rulaganya go rekisa ga tlhaka ya gago pele ga nako mme netefatsa gore o itse ditiragalo tsa mo marekisetsong.
9. Tiriso ya dikhemikale le dibolayamefero e tshwanetse go dirwa ka tlhokomelo gore o kgone go rekisa kumo e e siameng, e e seng kotsi go badirisai ba yona.
10. Leka go thusa molemirui kgotsa moumi yo mongwe yo a leng mo mathateng go mo tshegetsa mo nakong e a sokolang – kgotsa thusa molemirui yo a lekang go simolola go dirisa bolemirui.
11. Na le boikarabelo ba go tlhokomela ba lelapa la gago, badiredi ba gago, naga e o e dirisang, mafula a o a dirisang le diriwiwa tsa gago. Bolemirui, go uma dijo le go bona sengwe se mela go tloga mo go se se leng sepe go sala go le tiro e e itumedisang go feta mo lefatsheng. Se senye phatlha e o e filweng. ■

# Dintlha tse di tlhotlhheletsang tlhotlhwa ya kumo

**M**O MAEMONG A BOITSHOLELO JAAKA A NTSE, TLHOTLHWA YA GO REKISWA E SOKOLA GO NNA JAAKA E NTSE MORAGO GA DIKGOBERE-GO MO LEFATSHENG LA RONA LE KA NTLHA YA KGATELELO E E TSWELELANG GO NNA TENG MO BAUMI BA KUMO E E DIRISWANG GO NAYA BATHO DIJO. DIKGA TELELO TSE, JAAKA KOKETSO YA TLHOTLHWA E E MAKATSANG YADITOKELELO, DITSAMAEELANA LETLHOTLHWAKABO GOTLHE YA GO UMA KUMO JAAKA MMIDI LE DISONOBOLOMO. KE GO RE E TLHOTLHELETSA TLHOTLHWA E MODIRISI WA KUMO MO GAE A E DUELANG KA BOKANA KANG?

Phaletšhe le oli ya disonobolomo ke dilo tse di diriswang ka tlwaelo mo magaeng otlhe a mo Aforikaborwa. Tshupane ya Tlhotlhwa ya Badirisi (CPI), e supa tlhotlhwa ya dilwana tse di diriswang mo ntlong tse di lokelwang mo mmanking ya bokanagare le ditiro tse di duelwang.

## TATELANO YA TLHOTLHWA YA DILO TSE DI DIRISWANG KA TLWAELO MO NTLONG

Tatelano ya go uma sengwe e na le dikgato tse dintsi. Telatano ya tlhotlhwa e simolola ka kumo e e bonwang mo mmung mme kgato e nngwe le e nngwe ya telatano ya tlhotlhwa e oketsa tlhotlhwa ya kumo go fitlha e rekwa ke modirisi wa yona. **Tshwantsho ya 1** e supa telatano ya tlhotlhwa ya dilwana tse di diriswang ka tlwaelo mo ntlong.

Tatelano ya tlhotlhwa e tsamaya jaaka go supiwa fa:

1. Barekisi ba dilo tse di diriswang go uma kumo e le ditokelelo jaaka, monontsha, peo le dikhemikale.
2. Baumi ba kumo ya tlhaka ke kgato ya bobedi ya telatano ya tlhotlhwa. Fa mmu o baakantswe mme ditokelelo tse di tlhokwang di rekilwe, tiragalo ya go uma e ka simolola. Dikgato tsa go uma di farologana go ya le mefuta e e farologaneng ya tlhaka. Palo ya

matsatsi go fiTLHa fa tlhaka e ka robiwa le maemo a bosa ke dintlha tse di farologanang go ya le tikologo ya mo go ungwang kumo ya mofuta mongwe le mongwe.

3. Fa kumo e ungilwe, baumi ba rwalela kumo go disilo le ba ba silang. Ba ba di silang ba e sila ebile ba e fetola go nna mefuta ya kumo e e farologaneng jaaka badirisi ba yona ba e batlang.
4. Fa kumo e fetotswe go kumo ya mefutafuta, ba ba e silang ba e rwalela e le kumo ya bona go e rekisetra ba bangwe ba ba e dirisang e le kumo ya bona ka maina a bona a a itseweng.
5. Maina a go rekisa jaanong a rwalela kumo ya bona go barekisi ba ba nang mabenkele.
6. Mabenkele jaanong ba rekisa kumo eo go badirisi ba mafelelo.

## TLHOTLHELETSO YA TLHOTLHWA GO KUMO

**Tlhotlhheletso ya tlhotlhwa ya phaletšhe ya 2,5 kg go kgetsi ya mmidi Lenaneo la 1** le supa data e e diriswang go rulaganya katso ka bolegkolo ya baumi go tlhotlhwa ya go rekisa ya phaletšhe. Tlhotlhwa ya go uma e e rulagantsweng e balabalwa ka go dirisa tlhotlhware ya Safex ya ngwaga mongwe le mongwe wa go rekisa mme le ka go tlosa pharologano e e rileng ka ntlha ya tikologo mo kumo e ungwang mme gape le tlhotlhwa ya go rwalela le boloka.

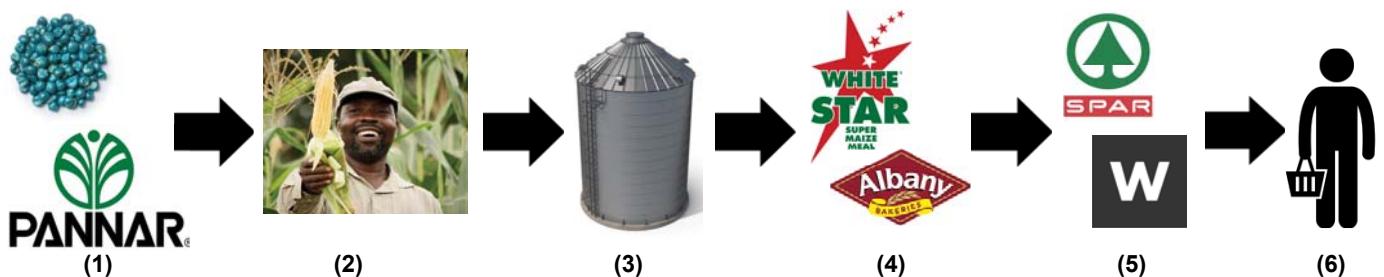
**Tshwantsho ya 2** e supa katso ka bolegkolo ya baumi go tlhotlhwa ya go rekisa ya phaletšhe. Fa go lebelelwya Tshwantsho ya 2 go ka rarabololwa gore tlhotlhwa ya mmidi e aba tlhotlhwa ya go rekisa ya phaletšhe ya 2,5 kg e e duelwang ke modirisi ka 50%. Bolekgolo bo bo salang ba tlhotlhwa bo adjwa ke koketso ya tlhotlhwa jaaka telatano ya tlhotlhwa e tswelela, ke go re go phuthela, go fetola le go sila.

## Tlhotlhheletso ya tlhotlhwa ya go uma disonobolomo go lebottolo la 750 ml la oli ya disonobolomo

**Lenaneo la 2** le supa data e e diriswang go rulaganya katso ka bolegkolo ya baumi go tlhotlhwa ya go rekisa ya oli ya disonobolomo.

1

Tatelano ya tlhotlhwa ya dilwana tsa mo ntlong.



1

Tlhotlhwa ya mmidi ka moumi mabapi le tlhotlhwa ya phaletšhe jaaka e rekiswa.

Ngwaga	Tlhotlhwa ka safex (R/t)	Tlhotlhwa ka moumi (R/t)	Tlhotlhwa ya phaletšhe ka moumi (R/t)	Tlhotlhwa ya phaletšhe (2,5 kg)	Tlhotlhwa jaaka e rekiswa (R/t)	Katso ya moumi go tlhotlhwa jaaka e rekiswa
2019/2020	3 315	2 692	1 480	23,65	9 460	52%
2020/2021	3 287	2 841	1 563	25,27	10 108	51%
2021/2022	3 242	2 768	1 522	27,67	11 068	48%

4

MADE POSSIBLE BY  
THE MAIZE TRUST

2

Kgaolo ya baumi ba mmidi ka bolekgolo ya phaletše ya 2,5kg jaaka e rekiswa (2021/2022).

R27,67 Tlhotlhwa ya go rekisa ya



R13,28 Katso ya moumi go tlhotlhwa jaaka e rekiswa ya

R14,39 Katso ya tatelano ya tlhotlhwa ya

3

Kgaolo ya baumi ba disonobolomo ka bolekgolo ya oli ya disonobolomo jaaka e rekiswa (2020/2021).

R22,80 Tlhotlhwa ya go rekisa ya



R10,26 Katso ya moumi go tlhotlhwa jaaka e rekiswa ya

R12,54 Katso ya tatelano ya tlhotlhwa ya

2

Tlhotlhwa ya disonobolomo mabapi le tlhotlhwa ya oli ya disonobolomo jaaka e rekiswa.

Ngwaga	Tlho-tlhwa ka Safex (R/t)	Tlhotlhwa ka moumi (R/t)	Tlhotlhwa ya oli ka moumi (R/t)	Tlho-tlhwa ya oli (750 ml)	Tlhotlhwa jaaka e rekiswa (R/t)	Katso ya moumi go tlhotlhwa jaaka e rekiswa
2019/2020	4 932	4 609	11 522	22,18	27 004,88	43%
2020/2021	5 380	5 049	12 623	22,80	27 753,17	45%
2021/2022	9 885	9 546	23 865	27,46	33 431,63	71%

Tlhotlhwa ya go uma e e rulagantsweng e balabalwa ka go dirisa tlhotlhwagare ya Safex ka ngwaga mongwe le mongwe wa wa go rekisa mme le ka go tlosa pharologano e e rileng ka ntlha ya tikologo mo kumo e ungwang mme gape le tlhotlhwa ya go rwalela le go boloka.

**Tshwantsho ya 3** e supa katso ya baumi ka bolekgolo go tlhotlhwa ya oli ya disonobolomo jaaka e rekiswa. Go tshegetsa tshupe-tso e go dirisitswe tlhotlhwa jaaka e ne e le ka 2020/2021. Ke ka ntlha ya koketso ya tlhotlhwa ya disonobolomo ka kgaolo ya 2021/2022 e, fa gongwe, e ka re naya tshupetso e e seng ya nnete go supa katso ya baumi go tlhotlhwa ya disonobolomo.

#### BOKHUTLO

Badirisi fa gongwe ba dumela gore tlhotlhwa e e kwa godimodimo ya dilwana tse di diriswang mo ntlong e oketswa ke tlhotlhwa e e amo-

gelwang ke baumi ba kumo e e tswang o mo lefatsheng mo, jaaka go supiwa mo athikeleng e, go seng nnete. Baumi ba kumo e e tswang mo lefatsheng ga se bona fela ba ba nang boikarabelo go tlhotlhwa ya dilwana tse di rekiswang mo mabenkeleng. Koketso ya tlhotlhwa e tiswa ke kgato e nngwe le e nngwe ya tatelano ya tlhotlhwa, e nngwe le e nngwe e ntse e oketsa tlhotlhwa ya kumo ya go rekisa ya mafelelo. ■

HELEEN VILJOEN,  
MOEKHONOMI WA MO GAE  
WA GRAIN SA



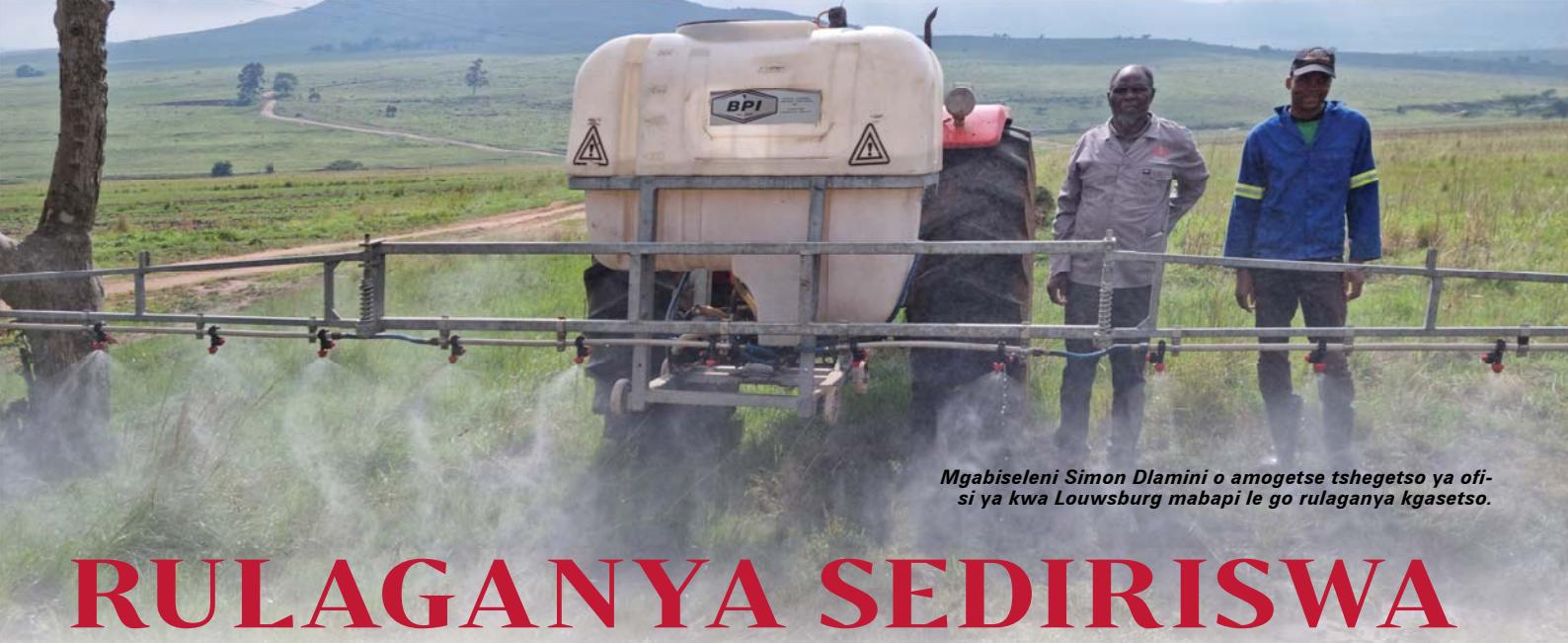
**HELPING YOU GROW  
YOUR CROPS AND  
FARMING BUSINESS**



**PANNAR®**  
Together we farm  
for your future™

**CORTEVA**  
agriculture

\* Trademarks of Corteva Agriscience and its affiliated companies.  
© 2022 Corteva. 2022/CORP/E/008DEV



*Mgabiseleni Simon Dlamini o amogetse tshegetso ya ofisi ya kwa Louwsburg mabapi le go rulaganya kgasetso.*

# RULAGANYA SEDIRISWA sa go gasetsa sa gago

**G**O NETEFATSA NEPO KA BOGOTLHE YA SEDIRISWA SA GO GASETSA O TSHWANETSE GO SE RULAGANYA PELE GA SETLHA SA GO GASETSA SE SIMOLOLA, MME O NTSE O SE RULAGANYA GAPE LE GAPE JAAKA SETLHA SA GO GASETSA SE TSWELELA.

Tiragalo ya go rulaganya segasetsa e tlhomamisitswe go netefatsa gore o gasetse bokana ba seedi (metsi le bothole) se o se gasetang ka go lekana mo kgaolong e rileng.

Didiriswa tse di tlhokwang gio dira tiro e ke:

- sesupanako;
- sesupabokana sa seedi (ka dimilitara); le
- sesupabogole.

## DINTLHA TSA GO GAKOLOGELWA

- Nosele e e nang phatlha e nnye e tlaa naya seedi go fokotsa ga e e nang phatlha e kgolo. Dinosele di farologana go ya ka mofuta wa diphatlha tse di nang tsona. Nosele e ka nna le mofuta wa phatlha e e gasetang ka bophara kgotsa ka boosesane, jalo le jalo.
- Fa o gatelela metsi ka pompo, kgatelelo e a oketsegwa mme go oketsa bokana ba seedi bo bo tswelelang kwa ntle. Jaaka kgatelelo e oketsegwa marothodi a nyenyeefala.
- Fa o dirisa terekere go gasetsa, kgatelelo e e neiwang ke pompo e tlhomamiswa ke bokana ba ditikologo ka motsotso (rpm).
- Kere e terekere e tsamayang mo go yona e amana le lebelo le terekere e tsamayang.
- Mokgwetsi wa terekere o tlhoka go swetsa gore o tsamaya ka lebelo lefe, e le dirpm mme le gore o tlaa dirisa kere efe gore a tsamaye ka lebelo le le lekaneng ka dinako tsotlhe fa go rulaganya ga segatse go dirilwe.
- Go fetola bokana ba bothole mo tlhakatlhakanyong. Go oketsa bokana ba bothole go raya gore setswaki se se dirang se ntse se oketsegwa. Koketso ya bothole e oketsa bokana ba bothole bo bo gasetswang ka metsi a lekaneng.

## MOKGWA WA GO RULAGANYA

- Tlatsa tanka ya segasetsa ka metsi a a phepa.
- Swetsa gore go tlaa diriswa kere efe mme le lebelo le go tlaa tsamiawang ka lone, e le dirpm. (sekao, kere ya 4 ka 2 500 rpm)
- Lekanyetsa bogole bo bo leng 100 m.
- Ka go dirisa kere e tlhophilweng le lebelo le le tlaa diriswang, lekanyetsa

nako e e tlaa tsayang terekere go tsamaya kgaolo ya bogole bo bo leng 100 m – sekao, metsotswana e e leng 21.

- Tsamaisa enjene ya terekere ka lebelo jaaka go dumetswe, e le 2 500 rpm, mme bona gore seedi se gasetswa mo kgaolong yotha ka bophara.
- Seta bokana ba kgatelelo ya segasetsa jaaka go tlhogewa (sekao, dibara tse 3).
- Ka go dirisa nako e e tseilweng ke terekere go tsamaya 100 m, bula segasetsa go gasetsa, mme lekanyetsa bokana ba seedi bo nosele e nngwe e se gasetang, e le sekao, 1200 ml/1,2 litara.
- Busetsa tiragalo e gape le gape ka dinosele tse dingwe mme tsaya bogare ba bokana bo di gasetang.
- Dirisa bokana ba seedi bo bo gasetswang ke nosele e le nngwe (sekao, 1 200 ml/1,2 litara) mme atisa ka palo ya dinosele (sekao, tse 12) gore o itse gore o gasetsa dilitara tsa seedi tse kana kang ka bogole bo bo leng 100 m.

Ka dinosele tsotlhe:  $12 \times 1,2 \text{ litara} = 14.4 \text{ litara}$ .

- Lekanyetsa bophara ba manaka a segasetsa (sekao, 4,7 m). Jaanong o itse gore o gasetsa ka bophara bo bo kana kang, mme o itse gore o gasetsa seedi ka bokana kang ka bophara bo bo kana kang ka bogole bo bo kana kang, e le 100 m. Kgaolo e e gasetswang ke segasetsa ka go tsamaya 100 m ke:  $100 \text{ m} \times 4,7 \text{ m} = 470 \text{ m}^2$ .

Mo kgaolong e go dirisitswe dilitara tsa seedi tse 14,4. Kgaolo e e leng heketara e e leng 1 ha =  $10 000 \text{ m}^2$  ( $100 \text{ m} \times 100 \text{ m}$ ). Bokana bo bo tshwanetseng go diriswa mo 1 ha bo tlaa nna  $10 000 / 470 = 21,27 \times 14,4 \text{ litara} = 306 \text{ litara/ha}$ .

Ditshupetso tsa tiriso ya bothole di tlaa supa bokana ba metsi bo bo tlhokwang ka heketara mme gape le bokana ba bothole bo bo tlhokwang ka heketara.

Fa o lemoga gore bokana ba seedi bo bo gasetswang ga bo tshwanele se o baltang go se dira, buela morago go rulaganya kgatelelo ya pompo ya segasetsa kgotsa lebelo la terekere kgotsa bokana ba dinosele. Fa bokana ba seedi bo lekana, o tshwanetse go rulaganya palo ya dilitara tsa bothole tse di tshwanetseng go lokelwa mo tankeng e nngwe le e nngwe ya segasetsa. ■

**SETLHOPHA SA GO RULAGANYA SA PULA**

# Tšhono ya 'Medisa go bona Gauta'

**M**AEMO A GO UMA A TLHOMAMISA KGONO YA MOUMI YA GO BONA POELO E E LEKANENG. KGAISANYO YA GRAIN SA YA SETŠHABA YA GO UMA TLHAKA, E E BITSWANG MEDISA GO BONA GAUTA, E NAYA BAUMI BA MMIDI BA AFORIKABORWA THEO YA GO GAISANYA MO DIKG AOLONG TSE DI FAROLOGANENG LE GO BOLELA MABAPI LE GO KGONA GA BONA.

Dikgaolo tsa go gaisanya di farologana ka go uma mo masimong a a nosetswang le mo go a a sa nosetsweng. Baumi gape ba kgaogangwa ka dikgaolo tsa mo ba dirisang bolemirui le mo setšhabeng ka bophara. Mekgwa e e tsweletseng ya go uma le maano a go dirisa masimo ka tshwanno e a gwe-tlwa go bona bontsi ba kumo ka heketara, kwa ntle ga malebana a mofuta wa mmidi o jwetsweng.

Kgaisanyo e rulagangwa ka mokgwaa o o tlhotheletsang puisano gare ga ditlamo tse di rekisang peo ka kgaisanyo ya mo kgaolong le ya mo setšhabeng ka bophara. Setlamo se sengwe le se sengwe se se rekisang peo se ntse se rulaganya kgaisanyo ya sona e e tshegetswang ka Grain SA. Kgaisanyo e tsweleletsa dipuisanyo gare ga ditlamo tsotlhe tse di rekisang peo go rulaganya botlhagolatsela bo bo thswanang, mme jalo go netefatsa gore ditlamo tsa go rekisa peo tsotlhe le baumi ba go uma tlhaka ba athlholwe ka go lepalepana le gare ga melawana e e tshwanang.

Ka tshimologo go ne go kgona go gaisanya balemirui ba ba umang mmidi, disonobolomo le disoya ka bontsi fela, mme jaanong go rulagantswe ditlhophpha tse pedi tse dintshwa gape, tse di leng ya molemirui **yo o dirisang kgaolo ya naga e nnye** (heketara e le 1 ka bonnye mme diheketara tse 2 ka bogolo) le ya **baumi ba korong**.



Gardner Khumalo yo a dirisang bolemirui mo kgaolong ya Amajuba mo tikologong ya New Castle o na a le moamogedi wa tlhotlhwa ya molemirui wa ditiragalo mo kgaolong e nnye wa Kgaisanyo ya Thobo ka heketara ya Setšhaba ya Medisa go bona Gauta ka maemo a go uma a a leng 8,01 t/ha.



*Ka maemo a go uma a a leng 14,7 t/ha Bheki Mabuza yo a dirisang bolemirui kwa Amersfoort mo kgaolong ya Mpumalanga, o bone maemo a boraro mo kgaolong ya kgaisanyo ya go uma mmidi mo kgaolong ya botlhaba ya Nagagodimo ka Kgaisanyo ya Thobo ka heketara ya Setšhaba ya Medisa go bona Gauta. O ne gaisanya le baumi ba ba nang maemo a go uma mmidi a a kwa godimo mo Afrikaborwa.*



Sekhena khuoto ya QR ya lelapatriso go buisa gape mabapi le kgaisanyo ya Medisa go bona Gauta.

## GO IKWADISA

- Ikwadise go gaisanya mo kgaisanyong ya setlamo se se rekisang peo sa gago. Ikopantshe le morekisi wa peo yo o mo dirisang go go naya kitso mabapi le kgaisanyo e.
- Fa kgaolo/setlamo se se na kgaisanyo, boikwadiso bo ka romelwa go Grain SA ka go tlatsa difomo mo lelapatriso, <http://groeivrgoud.co.za/en/register/>.
- O tshwanetse go ikwadisa bogolo ga dibeke tse pedi pele ga tshimologo ya setlha sa go uma. Tlhotlhwa ya go ikwadisa (go supa boikgolego) ke R1 000 mme tuelo e tshwanetse go duelwa ka boikwadiso bo bongwe le bo bongwe. **Ditokololo tsa Grain SA di ikwadisa kwa ntle ga go duela.**
- Dikwadiso di tshwanetse go supa leina la moumi le naga/tshimo (e seng bonnye tlase ga diheketara tse 2) e e tlaa diriswang. Go balemirui ba ba dirisang naga e nnye bokana ba naga/tshimo e e tlaa diriswang e se nne tlase ga heketara e le 1 mme gape e seng godimo ga diheketara tse 2. ■

SETLHOPHA SA GO RULAGANYA SA PULA

# PULA IMVULA

## Barulaganyi

### GRAIN SA: PRETORIA

PO Box 74087  
Lynnwood Ridge  
0040

- 086 004 7246
- [www.grainsa.co.za](http://www.grainsa.co.za)

### MOLAODI WA GO RULAGANYA

Dr Sandile Ngcamphalala  
■ 082 862 1991 ■ Ofisi: 012 943 8296  
■ [sandile@grainsa.co.za](mailto:sandile@grainsa.co.za)

### MORULAGANYI WA PHATLALATSO

Liana Stroebel  
■ 084 264 1422 ■ Ofisi: 012 943 8285  
■ [liana@grainsa.co.za](mailto:liana@grainsa.co.za)

### MOPATI WA GO GATISA

INFOWORKS MEDIA PUBLISHING  
Mothusi wa go rulaganya – Louise Kunz  
■ louise@infoworks.biz

Moeteledipele wa lesomo – Johan Smit  
■ 082 553 7806 ■ Ofisi: 018 468 2716  
■ [johan@infoworks.biz](mailto:johan@infoworks.biz)

Go gatisa – Elizma Myburgh, Joritha Hechter



## Lenaneo la Tlhabololo ya Balemirui ya Batlhaka ya Afrikaborwa

### MOKOPANYI WA TLHABOLOLO

Johan Kriel  
Foreisetata (Ladybrand)  
■ 079 497 4294 ■ [johank@grainsa.co.za](mailto:johank@grainsa.co.za)

Jerry Mthombothi  
Mpumalanga (Mbombela)  
■ 084 604 0549 ■ [jerry@grainsa.co.za](mailto:jerry@grainsa.co.za)  
■ Kantoro: 012 943 8289 ■ Smangaliso Zimbili

Jurie Mentz  
Mpumalanga/KwaZulu-Natal (Louwsburg)  
■ 082 354 5749 ■ [jurie@grainsa.co.za](mailto:jurie@grainsa.co.za)  
■ Kantoro: 012 943 8218

Graeme Engelbrecht  
KwaZulu-Natal (Dundee)  
■ 082 650 9315 ■ [graeme@grainsa.co.za](mailto:graeme@grainsa.co.za)  
■ Kantoro: 012 943 8287 ■ Nkosinathi Mazibuko

Luke Collier  
Kapabothaba (Kokstad)  
■ 083 730 9408 ■ [luke@grainsa.co.za](mailto:luke@grainsa.co.za)  
■ Kantoro: 012 943 8280 ■ Luthando Diko

Liana Stroebel  
Kapabophirimpa (Paarl)  
■ 084 264 1422 ■ [liana@grainsa.co.za](mailto:liana@grainsa.co.za)  
■ Kantoro: 012 943 8285 ■ Hailey Ehrenreich

Du Toit van der Westhuizen  
North West (Lichtenburg)  
■ 082 877 6749 ■ [dutoit@grainsa.co.za](mailto:dutoit@grainsa.co.za)  
■ Kantoro: 012 943 8290 ■ Lebo Mogatlanyane

Cwayita Mpotsi  
Mthatha  
■ 078 187 2752 ■ [umrthata@grainsa.co.za](mailto:umrthata@grainsa.co.za)  
■ Kantoro: 012 943 8277

**PULA/IMVULA E TENG KA  
DIPUO TSE DI LATELANG:**  
Setswana, Seswane, Sesotho, Sezulu le Sethosa.

Articles written by independent writers are the views of the writers and not that of Grain SA.

THIS PUBLICATION IS MADE POSSIBLE  
BY THE CONTRIBUTION OF THE MAIZE TRUST

MADE POSSIBLE BY  
THE MAIZE TRUST

# Lenaneo le le fetolang botshelo



Farmer  
Development  
Programme

Pusetso

## Setlhophpha sa Grain SA – seatla sa go thusa molemirui

**FA**re lebelela kwalelamatsatsi ya go etela dipolase ka dibeke tse pedi tsa tshimologo ya kgwedi ya Sedimonthole re bona ditiragalo tsa Setlhophpha sa Tlhabololo sa Grain SA. Ka bogotlhe **go etetswe ga 70** go **balemirui ba le 43** e le ba ba dirisang porojeke ya AB InBev, Advanced Farmers, Recapitalisation, SACTA le Standard Bank ka ngwaga o. Setlhophpha se dirisana mmogo le balemirui ka kgato e nngwe le e nngwe – tota le go dira tiro ya dipampiri, go loga maano le go rulaganya tekanyetso, go tlhola dikhoutu le go romela dithomelelo.

Gape re ntse re ruta balemirui botlhokwa ba go loga maano a a diriswang setlha sotlhe sa go uma mme le go rulaganya tsela ya madi ka go dirisa dipampiri ka go tswelela. Ka gore re tsamaelana le bapati ba ba lokelang madi go tlhabolola bolemirui ka kgonon, re gatelela botlhokwa ba go rulaganya dipego ka go tsenelela ka dinako tsotlhe. Dikhoutu, dithomelelo, dithankana tsa go folosa le ditshupetsa tsa go duela, tsotlhe di tshwanetse go momagana ka tshwanno gore di kgonwe go dirisa fa go tlhogewa. Ke go re, go bega dipego ka tshwanno ke theo ya go kgonon go dirisa kgwebo ya bolemirui ka kgonon. Go laola ka dipego ke go itse gore o na le eng, gore tse o nang tsona di kae le gore o tshwanetse go di tshwara nako e kana kang!



Pula e nele go feta mo polaseng ya Themba Bambaspha mo kgaolong ya Ermelo mme ya tsuolotse ditiragalo tsa mo polaseng ya gagwe. Mosupetsatsela wa gagwe a mo etela go mo thusa go loga maano.



Modulasetilo Lesole David Thama, wa Hanbury Ranch Pty Ltd 1 le mosupetsatsela wa gagwe.



Mongwe wa balemirui wa kwa Foreisetata yo a leng mongwe wa porojeke ya Standard Bank, Joseph Mohlomi, o buisana le mosupetsatsela wa gagwe mabapi le go suga mmu.

## Phisego ya go oketsa kitso

**BOTLHOKWA** ba basupetsatsela bo bogolo tota. Tota le fa ngwaga wa 2021 o setse e fela go ne go na le balemirui ba ba neng ba batla go ikopantsa le Lenaneo la Tlhabololo la Grain SA. Ba tlhotleletswa ke kgonon ya maloko a mangwe a a kgonang go bona thobo e e lekaneng gape le gape. Jurie Menth, morulaganya wa tlhabololo wa kwa ofising ya Louwsburg o kopane le balemirui ba kwa Emahlatini mo kgaolong ya Mpumalanga ba ba ratang go ikopantsa le lenaneo la tlhabololo. O ba tlhalosetse popego le thulaganyo ya Grain SA jaaka e dira mme a bua le bona gape mabapi le dintlhla tsa theo tsa tshomarelo ya bolemirui tse di leng botlhokwa.



Jurie Menth o kopane le balemirui ba ba ratang go ikopantsa le lenaneo kwa Emahlatini.

Jerry Mthombothi, morulaganya wa tlhabololo wa kwa ofising ya Mbombela, o begile gore o kopane le setlhophpha sa dithutiso se sentshwa sa **Ga-Riba**. O feditse go ba kwalela go nna maloko mme a ba tlhalosetse metheo ya tiragalo ya go jwala mmidi gore ba kgone go simolola go jwala ka go dirisa mekgwa ya bolemirui ya go uma e e rileng. Dintlhla tsedie latelang di ne di lebeletswe: Tlhophya ya mofuta wa mmidi o o tlaa jwalwang, go suga mmu, boteng ba mmu, palo ya dimela, tiriso ya monontsha le bolaodi ba mefero. Gape ba ne ba tlhotleletswa go tsena dikopano tsa dithutiso tsa ditlhophpha tsa dithutiso ka 2022 mme le go tsena dithuto tse di ka ba tlhomelwang.



Balemirui ba ba kwa Limpopo ba ba tseneng kopano ya Setlhophpha sa Dithutiso sa Ga-Riba se sentshwa, ba na le phisego ya go amogela kitso. ■