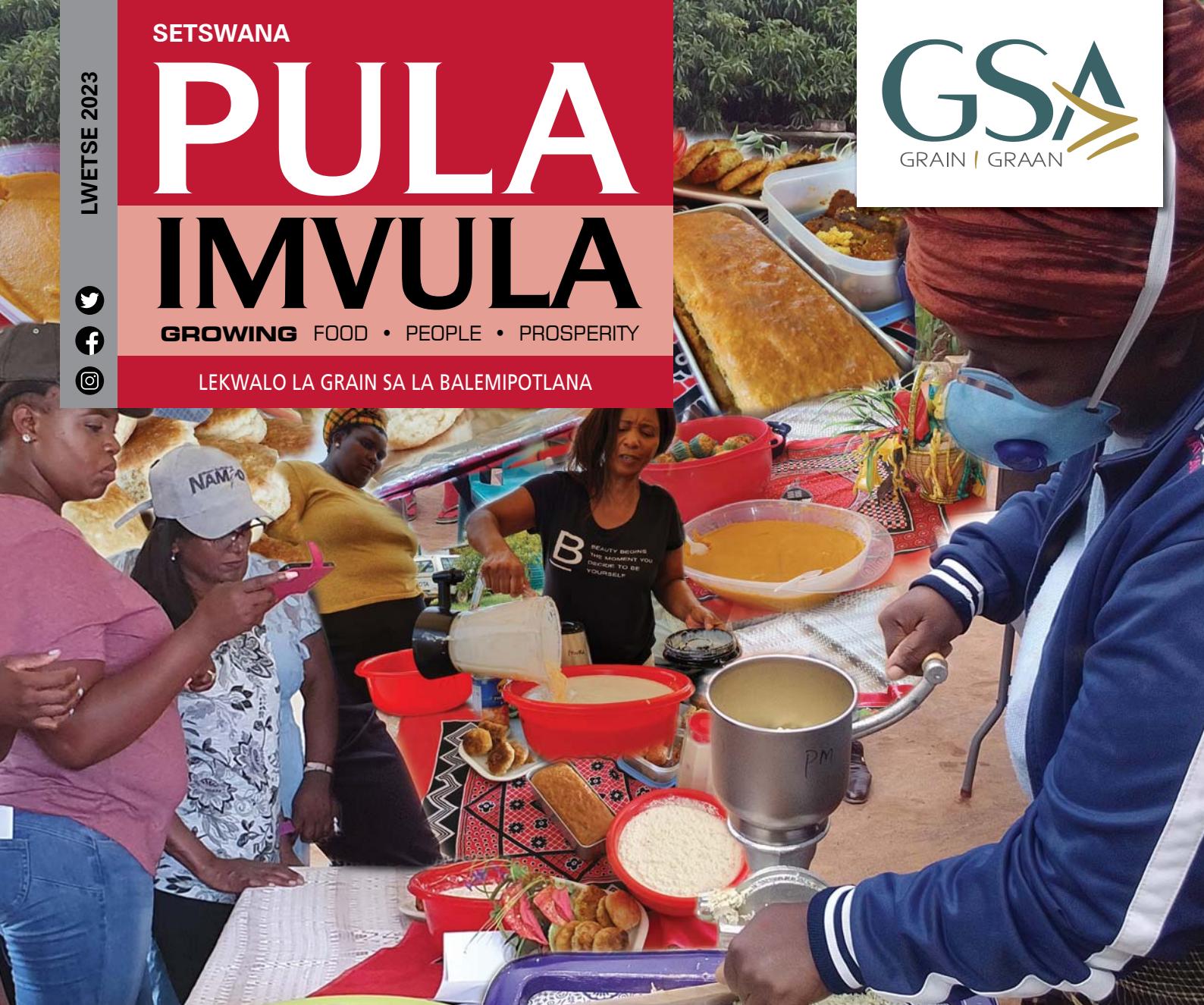


# PULA IMVULA

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LEKWALO LA GRAIN SA LA BALEMIOTLANA



## Oketsa pabalesego ya dijo ka mmidi le tshwabi

**G**O APAYA TSHWABI KE MOKGWA O O RILENG GO APAYA MMIDI LE MEFUTA E MENGWE YA TLHAKA JAAKA MABELE, GO OKETSMAEMO A KOTLO LE GO FETOLA DIJO TSE DI TLWAETSWENG KA GO APAYA LE GO BE-SA TSHWABI.

Tiragalo e nya tshwabi – kumo e e leng kotlo ya maemo godimo, e e monate mme go botoka go e apaya le go e sila go bona leribi kgotsa phaletše ya tshwabi ya mmidi e e ka diriswang go apaya dijotsa mefutafuta tse di tswang mo motswedeng wa mmidi.

### TIRAGALO

Mmmidi o a inelwa, o a tlhatswa mme go tloswa makakabo – mantle a mmidi a boleta mme o a tlhatswa. Go dumelwa gore tiragalo e e tlosa mo go ka nnang 90% go 97% ga borai ba diafalatokosine tse di leng mo mmiding. Fa o tlhatswitswe, kumo e jaanong e bitswa mmopo. Tse jaanong di a silwa, di a thugwa mme di tlhakangwa le

metsi go nna leribi le le bitswang tshwabi (bona **Sesupetso sa 1** mo tsebeng ya bobedi) e e ka diriswang go apaya mefutafuta ya dijo. Gape le ka omiswa mme la diriswa jaaka boupi go besa marotho le tse dingwe.

### MESOLA

Go apaya tshwabi ke tiragaolo ya phetholo ya mmidi go naya mesola e e farologaneng ga gaisa mmidi jaaka o ntse:

- Go botoka go e sila.
- Go naya koketso ya diporoteine le dintlhakotlo tse teng.
- Moutlwalo le monko o a tokafatswa.
- Setatše se tseiwa ke mmele ka tshwanno.
- Borai ba dimaekotokosine bo a fokotsegwa.

### KOTSI YA BORAI BA MAIKOTOKOSINE

Dimaekotokosine ke borai bo bo tlisetswang ke methuthuntshwane (mouta/mokobo) mme e ka bonwa mo mefuta e e farologaneng ya dijo, tota le mo mmiding. Mmidi o ka tsenelelwa ke borai bo mo masimong le



ka nako ya go bolokwa. Borai bo bo tsena mo mmeleng fa go jawa dijo tse di nang dimaekotokosine, mme bo ka tlisetsa malwetse a a farologaneng mo bathong le mo diphologolong le diruwi.

Ka gore mmidi ke sejonnate sa mo Aforikaborwa, go bothokwa go ithuta mabapi le tiragalo ya go apaya tshwabi e e ka tlosang bothata bo – go apaya tshwabi.

## LE WENA O KA E APAYA

- Lokela mmidi mo pitseng go apeiwa mme tlatsa pitsa ka metsi. Ela tlhoko: Se dirise pitsa ya aluminiamo – ka dinako tsotlhie dirisa ya tshipi kgotsa ya setala.
- Lokela maswana a a diriswang go ja a mabedi a kalaka e e repisitsweng, e e setseng e nyerolotsweng, mo metsi a a bollo go diriswa mo metsing a dilitara tse 2. Kalaka e e repisitsweng ke kalsiammo haederosaete, e e ke rekwang mo khemising – e farologana le kalaka ya bolemirui e e diriswang mo masimong.
- Metsi a a nang mmidi a a bediswa mme a bela mo go ka nnang metsotso e e leng 15. Se a bedise go feta ka gore metsi a ka tlosa matshetshetho, mme mmidi o ka goga metsi. Go ka nyerolosa setatše mme mmidi o ka se diriswe go apaya tshwabi.
- Morago ga metsotso e e leng 15, tlosa pitsa mo mollong. E tlogele go tsidifala bosigo botlhie kgotsa mo go ka nnang diawara tse robedi kgotsa go feta.
- Phakela, o tlaa bona gore mmala o fetogile mme matshetshetho a boleta ebile a bonega gore a ka tloswa. Lokela mmidi mo sefong mme o tlhatswe ka metsi a a phepha, ka go nna o o tsokotsa ka diatla go tlosa matshetshetho. Mmidi o jaanong o bitswa mmopo.
- Mmopo o o ka diriswa go apeiwa e le tlhaka kgotsa o ka silwa go bona leribi e le tshwabi, mme e ka diriswa ka mekgwa e e farologaneng.
- Go bona tshwabi, mmopo o ka silwa go nna leribi le le boleta kgotsa o ka silwa mo tshilong ya dijo. Fa e sa diriswe e le tege, lokela maswana a go ja a mabedi a metsi go nna leribi le le thatanyana.

Ela tlhoko: Dirisa kalaka e e repisitsweng ka tlhokomelo. Netefatsa gore kelelo ya mowa e siame gore e se gogelwe. Se lokele diatla mo metsing a a nang kalaka. Lokela mmidi o o ineletsweng mo sefong mme o tsokotsa ka tshwanno – fudua ka leswana la kgong kgotsa ithwese ditlelafo fa o tlhatswa mmidi go tlosa kalaka. Tsokotsa tlhaka ka tlhokomelo gape le gape. Go se itshireletse go ka senya letlalo kgotsa makgwafo. Kalaka e e repisitsweng e a ja mme e tshwanetse go diriswa ka kelotlhoko.

- Fa go diriswa tshilo ya dijo go ka tsaya metsotso e e ke nnang nne go e tlhano pele go ka bonwa tege e e siameng. Fa tege e le metsi go feta, go thata go e dirisa.
- Fa o omisa tege, e ka diriswa ka mekgwa e e farologaneng, ka go dirisa tshupetso.

## TIRISANOMMOGO E OKETS KGONO

Ka bonako ga lemogwa gore tsela e ke e e ka tsamaiwang. Sethophasa simolola jaanong-jaana go batla badirisanimmogo go ba tshegetsa ka go tsweleletsa kitso e e siameng e. Lefapha la Saense le Thekenoloji, le le neng le tshegetswa ke la jaanong la Lefapha la Seanse le Maranyane (DSI), le ne le supa mafolofolo ka bontsi. Thutiso ya ntlha e e kwadilweng, e tsweleletse ka tshegetso ya DSI ka tshimologo ya 2018.

Ka go lemoga gore ke e ne e le maranyane o o botlhokwa mo ditiragalo tsa bolemirui tsa mo magaeng, mafapha a Dipatlisiso le Tlhabololo ya Balemirui a Grain SA a kopana go dirisana mmogo le Ng JW Swanepoel le Ng Alba du Toit ba Sentara ya Tsweleletso ya Bolemirui, Tlhabololo ya kwa Magaeng le Tsweleletso ya kwa Unibesiting ya Foreisetata (UFS) go sekaseka gape ditshono tsa ditiragalo

STEP 1:



Tlhophia mmidi.

STEP 2:



Apaya mmidi mo metsing a a nang kalaka. O inele mo metsing bosigo botlhie.

STEP 3:



Sila kgotsa thuga mmidi o o apeilweng.

STEP 4:



Leribi le le bonwang ra re ke tshwabi.

*Tiragalo ya go apaya phaletše ya tshwabi.*

Motswedie: <https://latortilleria.com.au/>



*Grain SA e ruta dithutiso tse dintsi go ruta balemirui le basadi mo dinageng tsa kwa magaeng mabapi le modubo wa go dirisa mmidi go apaya phaletše ya tshwabi ka go o lokela mo metsing a nang kalaka, go o apaya, go o omisa le go o sila.*



*Go rekisa dijo tse di apeilweng ka go dirisa leribi le go naya kgono ya go bona madi.*

tsa go tsweleletsa ekonomi ya bolemirui ka go dirisa kgono e e nei-wang ke tiragalo ya go apaya tshwabi.

Go jaanong, tirisanommogo ya setlhophpha sa Grain SA/DSI se kgonisitse go rutwa ga dithutiso tse di ka nnang 500, go ruta batseni ba dithutiso ba ba ka nnang 6000 mokgwa le tiriso ya go apaya tshwabi ya mmidi le go e dirisa go jesa batho. Dipatlisiso ka go tswelela di ntse di dirwa kwa UFS go rulaganya diresepi, go rulaganya marekisetso a mo kumo e e ka rekiswa le go rarabolola mekgwa ya go e boloka ka kgono, go e phuthela le mekgwa e e ka diriswang go e rekisa go tsweleletsa mefuta e e farologaneng ya dijo tse di apeiwang ka go dirisa tshwabi mabapi le basadi ba kwa magaeng.

### KHUTSHWAFATSO YA POREJEKE

Go jaanong, ka go tsweleletsa porojeke, ditswamorago tse di latelang di bonve:

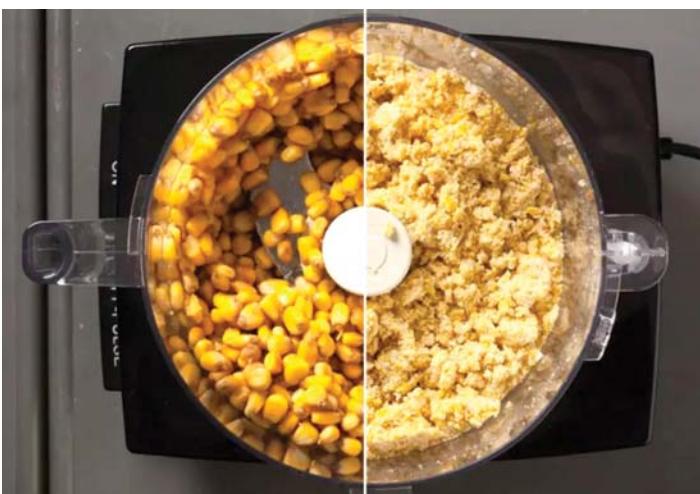
**Go ithuta ga tshimologo:** Kitso ya go ithuta ga tshimologo mabapi le ditiragalo, kitso e e leng teng le kgono mo bathong e ne e phuthwa mme ya sekasekwa.

#### Patlisiso le tlhabololo:

- Diresepi tse di diriswang jaanong di ne tsa rarabololwa tsa tlhamalatswa mme ga tlhabololwa buka e ntshwa ya diresepi.
- Tlhabololo ya tswelela mme ga tlhabololwa mefuta e e farologaneng ya kumo e e ka apeiwang ka go dirisa tshwabi – mme jalo ga bonwa mefutafuta ya kumo e e leng teng jaanong.
- Ga dirwa diteko tse dingwe tse dintsi, jaaka go oketsa maemo a kotlo, go fokotsa tlhotlhwa ya go apaya kumo, go natefatsa kumo e e ungwang le go oketsa nako e kumo e ka bolokwang.
- Mekgwa e mengwe gape ya go diriswa go tokafatsa maemo a kotlo mo kumo e e bonwang le tiriso ya kumo kwa magaeng e ne e tlhabolowa.
- Mananeo a mane a go dirisa kgwebo le go e simolola e tlhabolotswe.

**Tlhabololo ya bokgoni:** Baamogedi ba poelo ba ne ba rutwa go fetola tshwabi go nna mefuta e mengwe ya dijo jaaka mekgwa e e farologaneng e ne e tlhabololwa.

Dikgaolo tse dithutiso di tlaa tlhongwang ke Mpumalanga, Limpopo, Foreisetata le Bokonebophirima. ■



*Mmidi o fetolwa ga nna phaletše ya tshwabi.*

Motswedi: <https://www.americastestkitchen.com/cooksillustrated/science/789-articles/feature/transforming-corn>



*Go na le dijo tse di farologaneng tse di ka apeiwang ka go dirisa leribi le – go ka apeiwa borotho, bogobe, diphaphatha, tsa go gathisa mme tota le yokate.*

JENNY MATHEWS,  
MOITSEANAPE WA BOLAODI LE TLHABO-  
LOLO MME GAPE LE MORUTADITHUTO



# MOLEMIRUI WA NGWAGA

## Bontlhophang ba 2023 ke bao

**K**E NAKO YA GO GAKATSA YA NGWAGA GAPE FA BONTLHOPHANG BA MOLEMIRUI WA TLHAKA WA NGWAGA WA 2023 WA GRAIN SA BA TSHWANETSENG GO SUPIWA.

Bontlhophang ba ba emetse balemi ba tlhaka ba diketekete mo lenaneo le ba ba dirang thata ka letsatsi le letsatsi go naya ba magae a bona dijo – balemirui ba ba ntseng ba aga dikgwebo tsa bona go kcona go tswelela go nna balemi ba ba ka rekisang tlhaka e ba e bonang.

Bontlhophang botlhe ba supile tswelelopele mo ditiragalang tsa bona tsa go dirisa bolemiru mo Lenaneo la Tlhabololo ya Balmirui. Tiro e ba e dirileng e tlaa lemogwa ka tiragalo e e tlhomilweng ka 20 Lwetse ka Letsatsi la Moletlo. Tiragalo e ke setlhoa sa ngwaga wa ditiragalo tsa Grain SA mme e bontsha temogo le kcona mo go

ungwa ga tlhaka, e bontsha tiro e e dirwang le kcona ya balemirui ba rona.

Go botlhokwa go gakologelwa gore maikaelelo a nnete a kgaisanyo e ga se go fenza; ke go itumelela moletlo le go ithuta, go gola, tswelelopele le tiro e e dirlweng ke balemirui ba diketete ba Lenaneo la Tlhabololo ya balemirui la Grain SA. Mosola wa yona ke go nna motswedzi wa tlhotlheto go botlhe ba ba batlang go itsheletsa go bona maikaelelo a bona a direga – kwa ntle ga gore a kana kang.

Fa o tlhophilwe go nna nthophang wa kgaisanyo e, o ntse go dira sengwe se se siameng mme o ntse o le sekaelo go ba bangwe go bontsha gore go ka dirwa eng. Ka go fetsa go bua mafoko, bontlhophang ba 2023 ba bao. ■

LESMOMO LA THULAGANYO

### MOLEMIRUI WA GO REKISA TLHAKA WA MOTLHA O MONTSHWA WA NGWAGA



Traste ya Dwaalkraal  
Kgaolo: Sannieshof  
Polase: Dwaalkraal



Botlhale Tshabalala  
Kgaolo: Lichtenburg  
Polase: Driehoek



Lethiwe Derrile Mthethwa  
Kgaolo: Dannhauser  
Polase: Milnedale



Luvuyo Mbutho  
Kgaolo: Kokstad  
Polase: Altona, Swartberg



Paul Motlokoa  
Kgaolo: Sasolburg  
Polase: Sachen Weimar



Petrus Tsoetsi  
Kgaolo: Kestell  
Polase: De Bult, Kestell



William Raphoto  
Kgaolo: Lichtenburg  
Polase: Lareystryd

## MOLEMIRUI WA GO REKISA TLHAKA WA BOGONGWE WA NGWAGA



**Kopano Lentswetshipi**  
Kgaolo: Lichtenburg  
Polase: Weltevreden



**Philane Khoza**  
Kgaolo: Bergville  
Polase: Dukuza



**Simon Shabangu**  
Kgaolo: Carolina  
Polase: Welgevonden



**Zoliwe Nombewu**  
Kgaolo: Tsolo  
Polase: Gotyibeni

## MOLEMIRUI WA TIRISO KGAOLONNYE WA NGWAGA



**Amos Mahlangu**  
Kgaolo: Carolina  
Polase: Brakspruit



**Nkosinathi Hadebe**  
Kgaolo: Newcastle  
Polase: Eastborn, Osizweni



**Siphesihle and Siphiwe Mahlinza**  
Kgaolo: Utrecht  
Polase: Goedehoop

## MOLEMIRUI WA GO IJWALELA TLHAKA WA NGWAGA



**Beauty Gumbi**  
Kgaolo: Paulpietersburg  
Polase: Uphuzane



**Busisiwe Msibi**  
Kgaolo: Volksrust  
Polase: Ukuthanda ugukhanye CPA



**Mzolisi Lennox Silimela**  
Kgaolo: Mthatha  
Polase: Baziya A/A Makaula



**Ndinda Mkhonza**  
Kgaolo: Hereford  
Polase: E166A, Hereford East



**Tebego Jele**  
Kgaolo: Dannhauser  
Polase: 0937 Annerdale

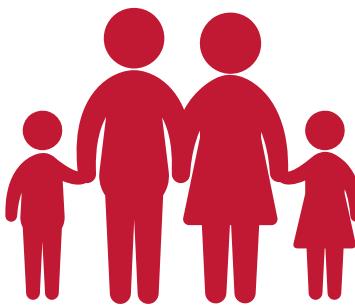


**Thabiso Mthwayi**  
Kgaolo: Maclear  
Polase: Hlankoma AA, Mdeni, Qolweni



**Thulisile Mazibuko**  
Kgaolo: Bergville  
Polase: Dukuza Mantesheni

# Sireletsa boswa ba lelapa la gago



**K**E LESEGO FA NTATE A KGONA GO DIRISA BOLEMIRIU MMOGO LE BARWAE KGOTSA BAGWE BA GAGWE MME MORAGO EBILE LE BANABABANA. MME GO TLAA DIREGA ENG FA A TLHOKAFALA KGOTSA A SA TLHOLE A KGONA GO NNA MOETELEDI WA DITIRAGALO TSA MO POLASENG?

Le fa dikgwebo tsa malapa di naya tlhotlhwa e kgolo go ekonomi ya Aforikaborwa, go maswabi go bona mo go ka nnang 85% ga dikgwebo tse go sa tswelele pele morago go letso la boraro. Ntlha e e begilwe ka 5 Motsheganong 2022 ke Farming Portal.

## BOTLHOKWA BA GO LOGA MAANO A TLHATLOLOGANO

Yolandi Kruger, molaodi le mogakolodi mo Dunamus Agri, a re nako ya go tswelela ya kgwebo ya lelapa ke dingwaga tse di ka nnang 24. Fa mofuta o wa kgwebo o feteletswa go simolola mo letsong la ntlha (ntate) go letso la bobedi (bana), kgono ya gore kgwebo e ka kgona go tswelela ke 30%. Fa e tswelela go ya go letso la boraro (banababana), kgono ya go tswelela ka kgono e fokotsega go 10%.

Lebaka la ntlha gore go nne jalo, ke botlhokwa ba leano la tlhatlologano. Lereo le le raya leano la tiriso ya kgwebo le le diriswang go feteletsa boeteledi go yo mongwe mo kgwebong.

Mo kgwebong ya bolemirui ya lelapa, boeteledi bo tshwanetse go feteletswa go yo mongwe wa lelapa fa moeteledi wa ntlha a rola tiro.

Go ya le Investopedia, leano la tlhatlologano le netefatsa gore kgwebo e tswelele ka tlhamalalo kwa ntle ga dikgaoganyo fa batho ba bangwe ba tsena mo ditiragalang tse dintshwa, ba rola tiro kgotsa ba tlhokafala. Go loga maano a tlhatlologano ke mokgwa o o rileng o o siametseng dikgwebo tsa malapa go netefatsa gore ditiragaloo di siame

go tsentsha mongwe wa lelapa go nna moeteledi – e seng fela bao ba ba laolang kgotsa baduladitilo.

Go botlhokwa gore moeteledi/motshwarateo a simolole leano la tlhatlologano go fokotsa ditiro tse a di dirang go kgona go rola tiro pele ga nako gore tlamele e e rileng e rulagangwe. Moeteledi/motshwarateo wa ntlha o boithokwa gagolo mo tiragalang e, ka e le ene yo a nang kgaolo a kgolo mo kgwebong ya ditiragaloo tsa kgwebo ya polase.



Dikgwebo tse di tsamaiswang ke malapa ga di kgone go latlhegwaa fa moeteledi wa ntlha a tlhokafala.



## BALEMIRUI BA MALAPA BA NAYA LEFATSHE DIJO

Jaaka balemirui ba malapa ba jesa lefatshe, go maswabi go bona togamaano ya tlhatlologano ga e dirwe ka tshwanno mo dikgwebo tsa bolemirui. Mo go ka nnang bontsi ba 70% ba kumo ya go jewa ke batho e ungwa ke balemirui ba lelapa, ditiragaloo tse di botlhokwa go lwantsha tlala le mopalo.

Gape, dikgwebo tsa bolemirui tsa malapa di naya thamiso. Mo go ka nnang 40% ga magae a mo lefatsheng a emeletswa ke bolemirui ba malapa go kgona go phela.

Go tswa mo go tse di neilweng fa godimo, go bonala gore dikgwebo tse di tsamaiswang ke malapa ga di kgone go latlhegwaa fa moeteledi wa ntlha a tlhokafala. Mme jalo, dintlha tse di leng bothhokwa di tshwanetse go tlhomamiswa pele yo mongwe wa lelapa a simolola go laola kgwebo. Tiragalo e e thibela dintwa tse di ka nnang teng morago ga moeteledi wa ntlha a tloga.

Ng Johan Beukes wa Authentic Living Learning a re go tshwanetse go rulagangwe melelwane e e rileng go sireletsa tirisanommogo ya lelapa. Mo kgwebong ya bolemirui ba lelapa, go ka nna moeteledi a le mongwe fela. Motho yo o tshwanetse go nna le kitso le kgono jaaka go tlhogewa go tsamaisa kgwebo ya bolemirui mme gape o tshwanetse go laola ditiragaloo tsa mo polaseng gore lelapa le bone tswelelepele morago ga nako e e rileng.

## NEELETSANYO E BOTLHOKWA

Theo Vorster wa Galileo Capital o gatelela gore mathata a dikgwebo tsa bolemirui tsa malapa a simolola fa go se na neeletsanyo e e lekaneng gare ga batho ba ba leng mo go yona. A re batswa ba ba farologaneng – ntate, bana le banababana – ba tshwanetse go tswelela go neeletsanya mabapi le tse di tlhokwang le ditoro tsa go tsamaisa kgwebo ya bolemirui ya lelapa.

Kruger le Beukes ba dumelana ka ntlha e mme ba oketsa ka go re neeletsanyo e e sa



Rraagwemogolo le motlogolo ba ntse ba lebeletse masimo ba ntse kgaoganya ditoro tsa bokamoso mo polaseng ya kgwebo ya lelapa la bone.



tsweleleng ke sekgoreletsi se segolo, mme gape ke motswedi o mogolo wa dintwa mo kgwebo ya bolemirui ya lelapa.

Neeletsanyo e raya gore go nne dipuisanyo gape le gape go tlotta ka maemo a madi mo kgwebo ya bolemirui ya lelapa. Mongwe le mongwe yo a leng mo kgwebo ya bolemirui ya lelapa o tshwanetse go itse diphatsa tsa go dirisa kgwebo. Dintlha tse di diriswang mo kgwebo ya bolemirui ya lelapa, jaaka leano la tlhatlologano, di tshwanetse go buiwa. Ka dikopano tse, go tshwanetse go kwalwe tsotlhe tse di buiwang go di dirisa kwa pele fa dilo di senyega.

### THULAGANYO YA LELAPA

Malapa a mantsi ba kwala ebile ba dirisa thulaganyo lelapa go ba tshegetsa go loga leano la tlhatlologano ka tshwanno. Thulaganyo ya lelapa e naya motheo o o botlhokwa go rulaganya kgwebo ya bolemirui ya lelapa ka tshwanno. Go botlhokwa go netefatsa gore ditiragalo tsa bolemirui di tlaa tswelela fa bolaodi ba tsona o feteletswa go molaodi yo mongwe.

Thulaganyo ya lelapa e tshwanetse go nna lekwalo 'le le phelang' mme le ka fetolwa gape le gape jaaka go tlhokegwa. Fa ba lelapa ba sa dumelane mabapi le thulaganyo ya lelapa, ba ka dirisa moemedi go ba tshegetsa.

Thulaganyo ya lelapa e tshwanetse go nna le dintlha tse di latelang:

- **Leano la tlhatlologano:** Fa ba ntlaa ba simolola go nna mo maemong a go feteletsa bolaodi ba kgwebo, botlhokwa ba leano la tlhatlologano bo a oketsela. Ka dinako tsotlhe ke tiragalo e e akgogang. Leano la tlhatlologano le tshwanetse go supa tiriso ya madi le dintlha tsa tsamaiso ya kgwebo. Nepo ya leano le e tlisa kgono ya go kgona.
- **Bolaodi ba tlhatlologano:** Kgwebo e nngwe le e nngwe ya kgwebo ya bolemirui ba lelapa e dirisa mokgwa wa go laola o o rileng. Go botlhokwa go kwala mokgwa o ka go tsenelela mo thulaganyong ya lelapa. Go tla swetswa jang ka letsatsi le letsatsi? Ke mang yo o tlaa swetsang? Dipotso tsotlhe tse le tse dingwe gape di tshwanetse go arajwa mo thulaganyong ya lelapa.
- **Bong ba tlhatlologano le pheletseto ya thoto:** Kgwebo ya bolemirui ba lelapa e na le thoto e e rileng, e e ka kgaogangwang ka dikgaolo tse tharo – naga, didiriswa le diriwa, le dikgwebo tsa bolemirui. Pheletseto ya thoto e go tswa mo ba ntlaa go ya go ba ba late-lang ke ntlaa e nngwe e e tshwanetseng go tlhologangwa mme e logelwe maano. Araba dipotso jaaka tse di latelang: A lelapa le na le go nna le tse dingwe tse di leng thoto? Di tlaa kgaogangwa jang gare ga ba lelapa?
- **Togamaano ya thoto le ditaelo:** Ditogamaano tse di lebelela lekgetho, sekoloto le tiriso ya madi e nngwe fa moeteledi a tlhokafala. Go botlhokwa go balabala kgono ya kgwebo ya bolemirui ba lelapa fa a tlhokafala go netefatsa gore go tlaa se nne madi a a tlhokwang go tsamaisa kgwebo ya bolemirui ba lelapa.
- **Ditiro go ba lelapa:** sekaseka gore ke bomang ba ba leng ba lelapa, sekao e le ke bomang ba ba leng ba losika? Gape, kwala dintlha tse di diriswang go tlhoma ba lelapa mme le melao ya go diriswa fa go lwewa.
- **Dišhere:** Ke bomang ba ba ka nnang le dišhere mme di ka rekisetswa go bomang fa di rekiswa?
- **Lekgotla la bagakolodi:** Ke bomang ba ba ka nnang mo botong ya balaodi? Go tlhopho go tlaa tsamaya jang? Go tlaa swetswa jang?

Gakologelwa: 'Polase ga se naga le dijwalwa fela – ke boswa ba lelapa le bokamoso ba bona.' ([bluehost.com](http://bluehost.com)). ■

KARINA MULLER, MOKWADI  
WA PULA IMVULA



# PULA IMVULA

## Barulaganyi

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Lynnwood Ridge

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■ [www.grainsa.co.za](http://www.grainsa.co.za)

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### PULA/IMVULA E TENG KA DIPUO TSE DI LATELANG:

Setswana, Sesésemene, Sesotho, Sezulu le Sethosa.

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# Lenaneo le le fetolang botshelo



## Balemirui ba kopana go rulaganya tirisano le go ithuta

**GRAIN SA** e tshwere letsatsi la balemirui ka 2 Seetebosigo kwa Legolaneng mo kgaolong ya Limpopo go maloko a ditlhophpha tsa dithutiso mo kgaolong. Mosa wa ditiragalo o ne o le go tsweleletsa go kopana le go tiisa tirisano gare ga badirisanimmogo mo ditiragalo le ditiro tsa bolemirui. Lenaneo la ditiragalo le ne le supa dipuisano mabapi le tiriso ya ditiragalo tsa bolemirui ka kgono, tiriso ya monontsha ka tshwanno le tlhokomelo ya dijwalwa mabapi le malwetsie.

Jerry Mthombothi, molaodi wa tlhabololo wa ofisi ya Mbombela, o gateletse botlhokwa ba tiriso ya ditiragalo tsa bolemirui tse di rileng, fa Thobeka Manyathi wa Kynoch a ne a tlota mabapi le botlhokwa ba tiriso ya diteko tse di siameng go dirisa monontsha wa NPK ka tshwanno pele le marago ga go jwala.

Lawrence Mataha wa Forestry and Agricultural Biotechnology Institute (FABI), mabapi le Department of Science and Innovation (DSI) le Grain SA, o ne a tlota ka tlhokomelo ya dijwalwa mabapi le malwetsie. Maitlhomo a porojeke a le go supa le go bona tlhoganyo ya malwetsie a a rileng a a bonwang mo Aforikaborwa. Ka go dirisana mmogo, go kopantshwa dithata, kgono le kitso go kgona go tlhokomela ditiragalo tsa malwetsie ka go tsenelela.

Go ya le Nolo Bakwa, mothaeletsano wa Grain SA, yo a neng a tsene ditiragalo, letsatsi le ne le le tshono go balemirui go kopana, go rutana le go ntshwafatsa kitso mabapi le ditiragalo tse dinthswa tsa bolemirui. ‘Gape go rulagantse kutlwano gare ga baagi ba ba dirisang dithutiso tsa ditlhophpha tsa dithutiso. Letsatsi la balemirui le feleletse ka kutlwano e e tlhotlheletseng go tswelela go dirisana mmogo le go tshegetsa tlhabololo ya balemirui botlhe.’



Maloko a Setlhophpha sa Dithutiso sa Legolaneng le Jerry Mthombothi (mo gare).



Maloko a setlhophpha sa dithutiso ba ne ba itumeletse letsatsi la balemirui gagolo.

## Ditlhophpha tsa dithutiso di BEGA GO BONA TLHAKA E NTSI

**KGWEDI** ya Seetebosigo ka dinako tsotlhе e na le ditiragalo tse dintsi go balemirui ba ba jwalwang dijwalwa ka selemo – bontsi ba bona ba ntse ba roba ebile ba rekisa tlhaka ya bona.

Ka kgaolonako ya 1 go 21 Seeetebosigo, setlhophpha sa Grain SA se ikopantshitse le ditlhophpha tsa dithutiso tse di ka nnang lesome. Dipego tse di rileng tsa badulasetilo ba ditlhophpha tsa dithutiso ke tse:

- Thobo ya tlhaka e e siameng e begilwe ke **Setlhophpha sa Dithutiso sa Nijini**, ka bontsi ba balemirui ba ba setseng ba tlositse mmidi mo masimong a bona.
- Mo **Setlhophpha sa dithutiso sa Barberton** maloko a ne a tlota ka botlhokwa ba mmu – boitekanelo ba mmu, boteng ba mmu le bokana ba boteng ba mmu bo bo tshwanetseng go jwala dijwalwa.
- **Setlhophpha sa dithutiso sa Amandangane** se robile tlhaka ka go oketsegia. Ka gore masimo a bona a sa teratelwa, mmidi o ne o tshwanetse go tloswa pele o omile – mme jalo ba o emetse go oma pele ba ka simolola go o photha.
- **Setlhophpha sa dithutiso sa Salubindza** se ne se tlota ka mmu le bolemirui, mefuta ya mebu, metswedi ya kotlo le kgono ya go naya kumo. Balemirui ba ne ba tlhotlheletswa go simolola go ipaakanya go dira ditiragalo tsa setlha se se latelang.
- Balemirui ba **Setlhophpha sa dithutiso sa Bizana** ba ne ba gateletswe go simolola go roba ka tshimologo ya kgwedi ya Motsheganong ka ntlha ya diruiwa tse di dumelwang go tsena mo masimong a mmidi a bona go senya dijwalwa tsa bona. Maemo a bokana ba tlhaka ga bo a siama – go jwetswe morago ga nako ka ntlha ya pula e e neleng ka bontsi go feta tlwaelo.



Mo Setlhophpha sa dithutiso sa Sheepmoor, maemo a pH a ne a tlhaloswa, mme balemirui ba ne ba rutwa mabapi le botlhokwa ba kalaka mme le gore go reng diteko tsa mmu di tseiwe. ■