agriculture
& rural development

Department:
Agriculture and Rural Development
PROVINCE OF KWAZULU-NATAL

UMKHIQIZO WOKUTSHALWA KWABHATATA

GOKUBAMBISANA SESENZE ISIFUNDAZWE SAKWAZULU-NATALI SABA ESINGCONO UKUPHILA KUSO

www.kzndard.gov.za

UMKHIQIZO WOKUTSHALWA KWABHATATA

GOKUBAMBISANA SESENZE ISIFUNDAZWE SAKWAZULU-NATALI SABA ESINGCONO UKUPHILA KUSO

Uma unesifiso sokuthola ikhophi yalencwadi xhumana:
nomNyango wezoLimo nezeMvelo kwisakhiwo
sendlu emhlophe
01 Cedara Road, Cedara
Private bag X9059
Pietermaritzburg
3200
Tel: 033 343 8240
Fax: 033 343 8255
www.kzndard.gov.za

UBHATATA

Ubhatata uyisitshalo esinomsoco omningi ukwedlula zonke emhlabeni, ukhiqhiza ukudla okwedlulele ngehakelo elilodwa. Utshalwa ngeziqu, amakhasi noma iminyombo enezimpande kodwa akutshalwa imbewu. Uvuma kahle endaweni esahlanze lapho ungekho ungqoqwane okungenani izinyanga eziwu 4 kuya ku 5.

INZUZO YOKUTSHALA UBHATATA:

- Umsoco ophezulu
- Kungatholakala isivuno esikhulu
- Utshaleka kalula
- Awudingi izithako eziningi lapho utshalwa
- Awuzweli kakhulu esomisweni
- Zimbalwa izifo eziwuhlaselayo

INGQINAMBA:

Ukusweleka kweziqu eziphile-saka esezilungele ukutshalwa.

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

IZINHLOBO

Kunezinhlobo eziningi ezehlukene ngokuma kwazo kanye nemibala.

Izinhlobo ezindala zabe zigabe ngezikhumba ezibomvu kanye nengaphakathi elimpofu.

Izinhlobo ezintsha ezinengaphakathi elisawolintshi zinomsoco ongcono kakhulu.

IZIKHATHI ZOKUTSHALA

Izidingo ngokwesimo sezulu

Imiphumela yesimo sezulu, ubukhona beziqu zokutshalwa kanye nokushintshashintsha kwentengo yikhona okulawula isikhathi sokutshala esifanele endaweni. Ukubanda kwenza amaqabunga abe phuzi bese efa. Ungqoqwane uyibulala yonke iminyombo ehlumayo.

Indawo Efudumele (Awukho ungqoqwane)

(Umbala **oluhlaza** kwibalazwe)

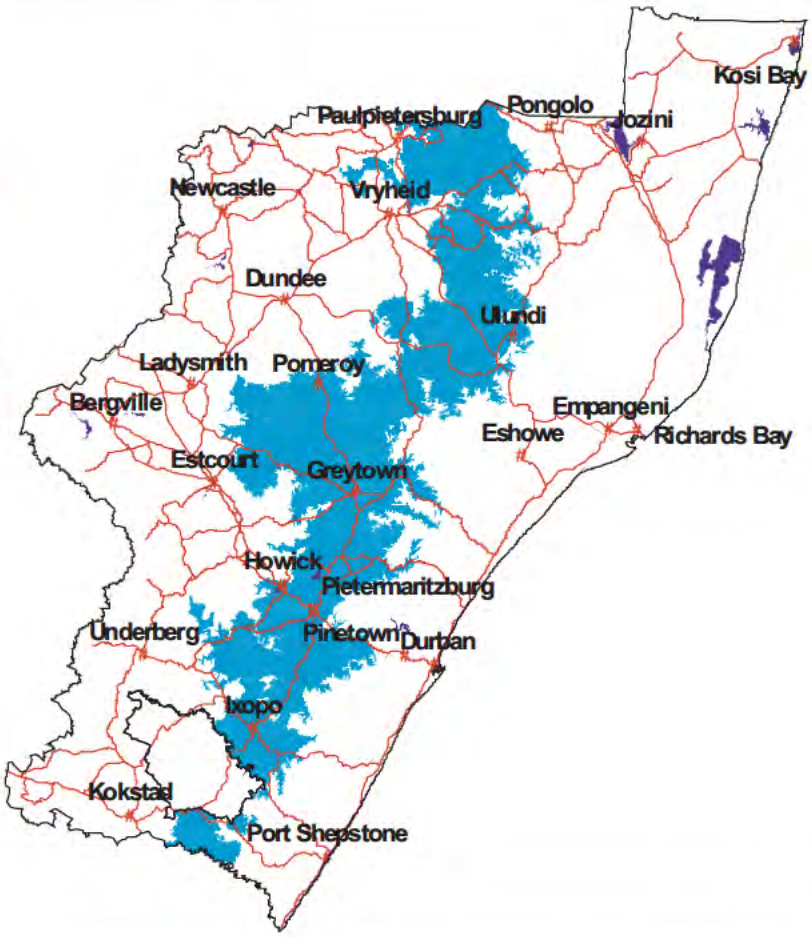
- Kungatshalwa unyaka wonke.
- Ngokujwayelekile isikhathi sokutshala sisuka ngo Janwari kuya ku Mashi.
- Isivuno siba ngo Juni kuya ku Agasti lapho amanani entengo ephezulu.
- Iminyombo etshalwe ebusika ikhula kancane.
- Ungatshali phakathi kuka Meyi no Julayi.

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

4 IZIKHATHI ZOKUTSHALA (Kuyaqhutshwa)

Izindawo ezipholile (Ungqoqwane omncane)
(Umbala **osasibhakabhaka** kwibalazwe)

- Tshala ngemuva kwengozi engabangwa ungqoqwane. Okthoba kuya ku Disemba.
- Izitshalo zango Januwari ziba nomkhiqizo ophansi.
- Ungqoqwane uyawabulala amakhasi neziqu.



Izindawo ezibandayo (Ungqoqwane omkhulu)
(Umbala **ophinki** kwibalazwe)

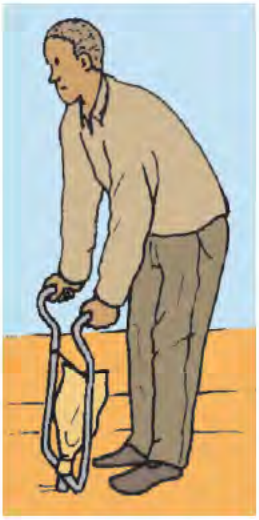
- Tshala kuphela ngo Okthoba kanye no Novemba.
- Okwedlula lapho, isikhathi siba sifishane kakhulu, isivuno sibe phansi.

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

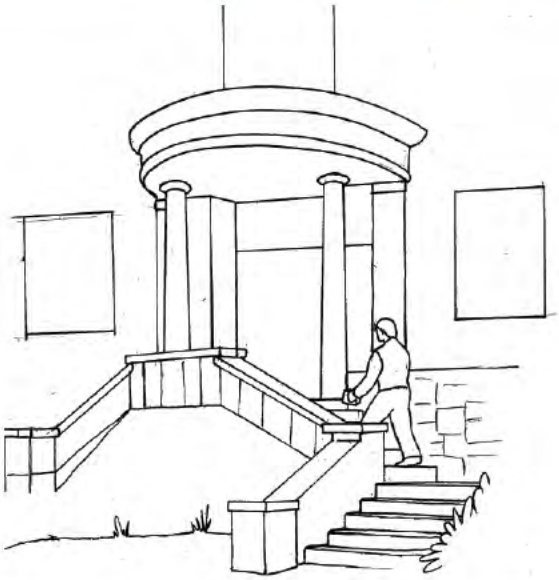
UKUHLOLWA KWENHLABATHI

1. Thatha isampula lenhlabathi okungenani izinyanga ezimbili kuya kwezine ngaphambi kokutshala.

2. Xhumana nomeluleki endaweni okuyo ukuze akusize.



3. Thumela isampula eCedara ngemuva kokugcwalisa iphepha lemininingwane edingekayo.



4. Cela umeluleki akuhumushele imiphumela yokuhlolwa kwenhlabathi.

5. Thola umanyolo njenga nokuyalela kwemiphumela yenhlabathi.

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

UKULUNGISWA KWENHLABATHI

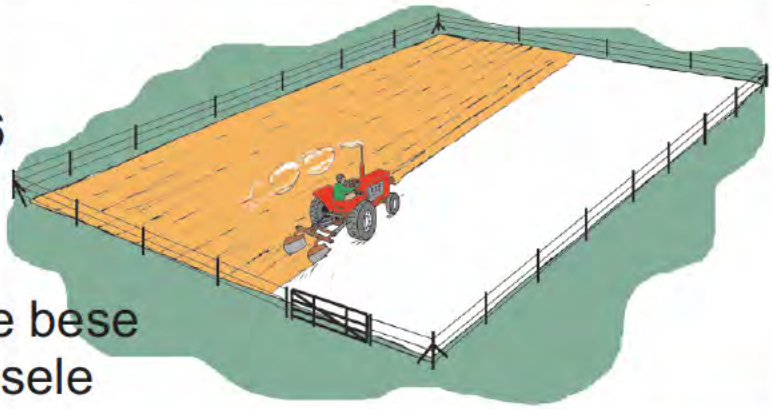
Ukukhethwa kwenhlabathi

- Umhlabathi omuhle yilowo olula osasihlabathi.

- Inhlabathi esindayo elubumba ibanga ukugwegwa nokubola kukabhatata.

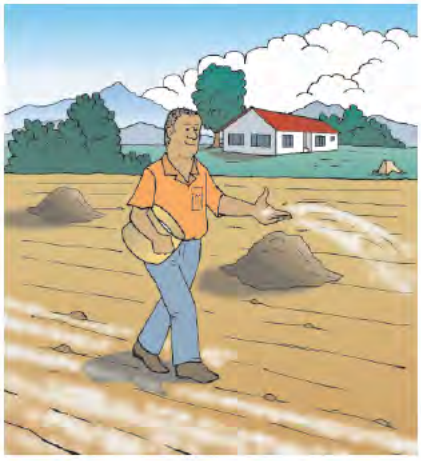
Imvundo kanye Nomquba

- Kufake enhlabathini kusasele amasonto awu4 kuya kwa wu 6 ngaphambi kokutshala.



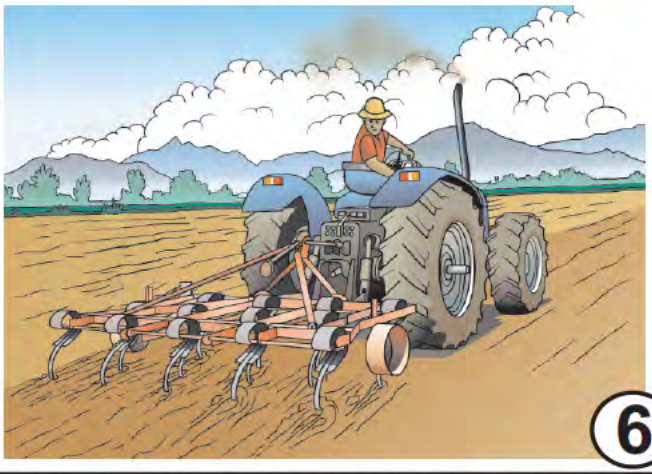
Umcako wabalimi (ukalika)

- Uma ukalika udingeka, usakaze bese uwuvukuzela enhlabathini kasasele amasonto amane ngaphambi kokutshala.



Umanyolo

- Ngaphambi kokutshala, sakaza umanyolo njengoba kuncoma imiphumela yokuhlolwa kwenhlabathi.
- Faka ingxenye yesikhuthaza lapho kutshalwa.
- Qedela isikhuthaza esisele lapho sewukhuthaza ikhaba kanye noma kabili.



Ukulima

- Vukuza inhlabathi ngemfoloko, igeja noma idiski.
- Phendulela umanyolo enhlabathini ulungise imibundu bese utshala.

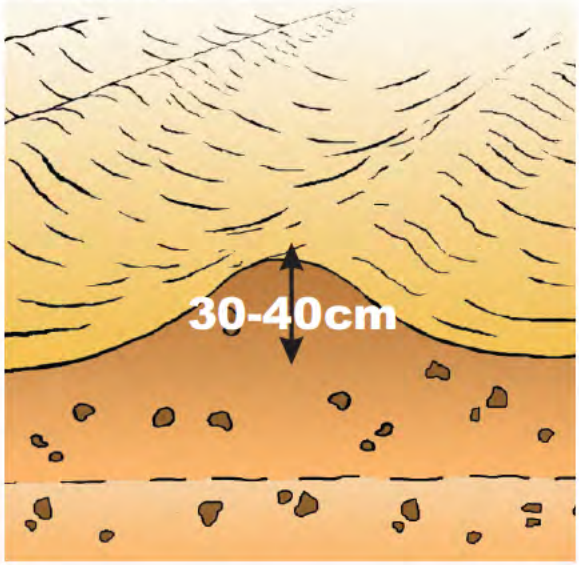
Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

IBANGA LEZITSHALO NEMIBUNDU

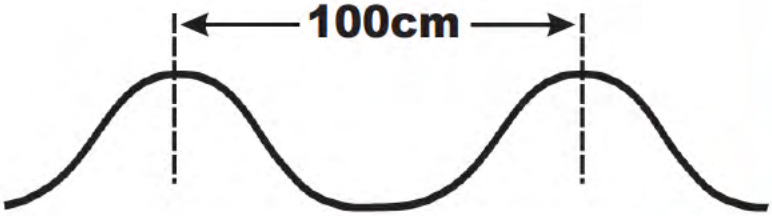
- Tshala phezulu emibundwini ukuze izimpande zikhule kahle kube lula nokuvuna.
- Imibundu mayibe u 30 kuya ku 40cm ukuphakama.
- Enhlabathini esindayo elubumba, imibundu kufanele iphakame kakhulu ukuze amanzi angami enhlabathini.

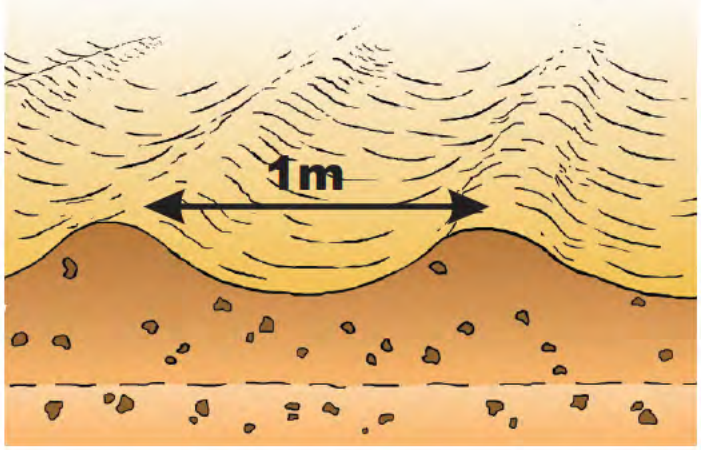
Enhlabathini esasihlabathi

Enhlabathini esalubumba



Imibundu yakhiwa ihlukane ngo 100cm (1m).





Imibundu ingakhiwa ngegeja lezandla, noma ngemishini kusetshenziswa igeja lokugqibela amazambane.

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

UKUKHETHA IMINYOMBO EZOTSHALWA

Ubhatata utshalwa ngeziqu, noma izithonjana esezi nezimpande ezikhuliswe ezitsheni njenge zithombo ezijwayelekile.

- Sebenzisa iziqu ezihlanzekile, ezingena zifo ezinqunywe ezihlahleni eziphilile.
- Noma izithonjana ezithengwayo esitolo sezi tshalo.

UNGASEBENZISI IZIQU EZIKHUNGETHWE YIZIFO!

- Ungaphindiseli iziqu ezindala enhlabathini. Kungaba sezinayo ivayrasi engehlisa isivuno ekugcineni.
- Izimpawu ze vayirasi amashashazi emaqabungeni, amaqabunga agoqongene kanye nokubhasha kwezitshalo.
- Izifo zaloluhlobo zisabalala ngenxa yokutshala iziqu ezigulayo.
- Bhubhisa zonke izitshalo ezinalezi zimpawu.

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

UKULUNGISWA KWEZIQU EZIZOTSHALWA

Nquma zonke iziqu izigaba ezithi azibe ngangerula noma u 30cm ubude.

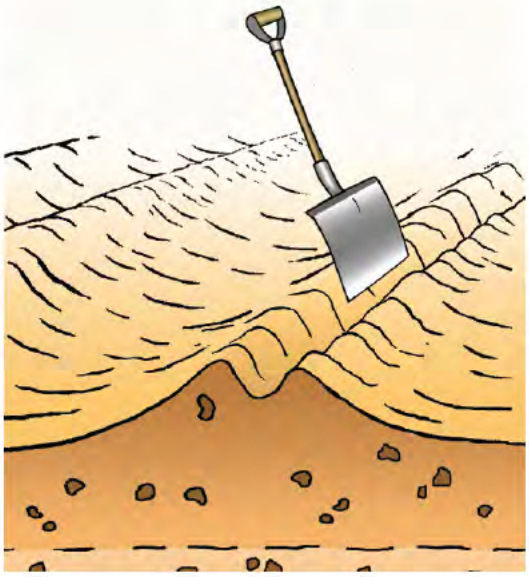
Susa amaqabunga angadingeki ngaphambi kokutshala.

Uma uzozigcina noma uzithuthe ibanga elide, zigcine zipholile futhi ziswakeme iziqu. Zihlohle esakeni elingenisa umoya noma izikhwama ezingosefesefe.

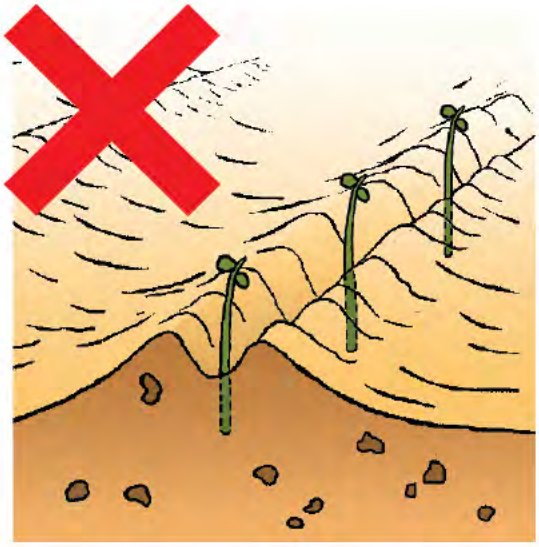
Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

UKUTSHALWA KWEZIQU

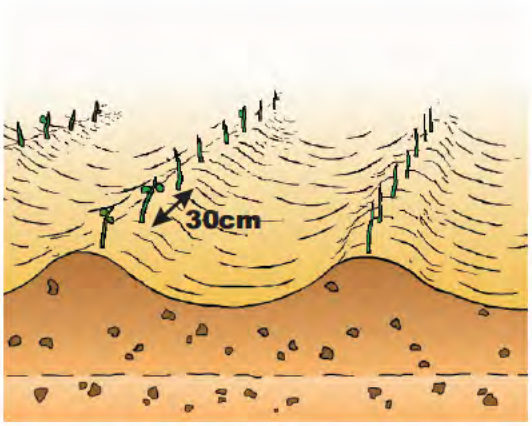
Tshala iziqu phezulu embundwini.



- Vula umsele ongashoni phezulu embundwini.
- Lalisa iziqu emseleni.
- Shiya imiqumbe emibili yokugcina esiqwini ivele ngaphezulu kwenhlabathi.
- Buyisela inhlabathi ugcindezele, umboze ngohlabathi ongu 3 kuya ku 5cm.
- Tshala iziqu sehlukane ngo 30cm emseleni.



Izimpande ziyomila zikhululeke futhi zibe nesakhiwo esihle esijwayelekile.



UKUNQANDA UKHULA

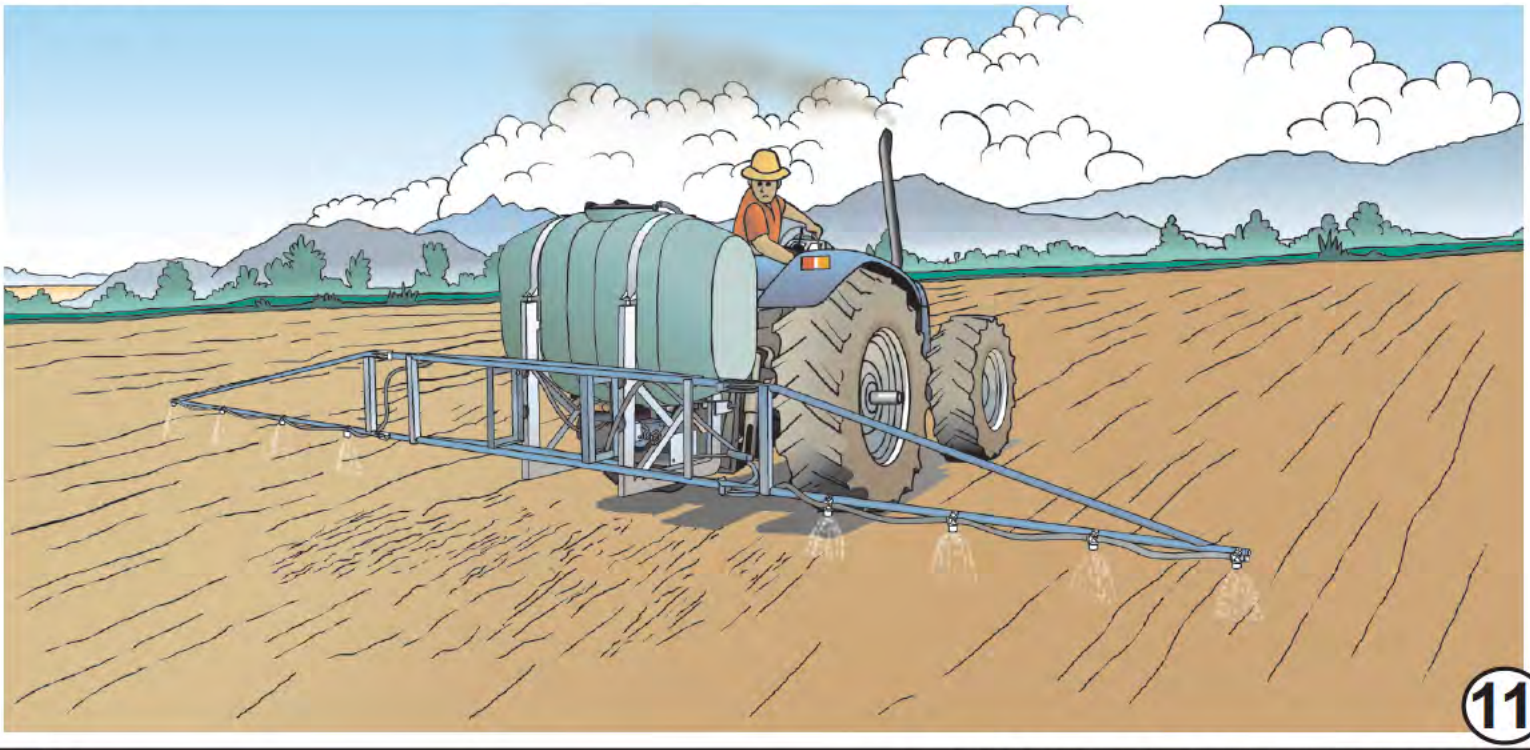
Ukukhiqiza ezingeni elincane
Ubhatata ukhula ngamandla wembozwe inhlabathi, ngalokho-ke ukhula aluyona inkinga enkulu. Ukuhlakula ngezandla kungenela emasontweni amabili kuya kwa mathathu okuqala ngemuva kokutshala.

Ukukhiqiza ezingeni elikhulu
Zimbili izibulali-khula ezingasetshenziswa ekukhiqizeni ubhatata:

EPTC/EPTAM -
Isebenza kakhulu ekulweni nenqonqodwana kanye nobunye utshani obumila unyaka wonke; kanye

LINURON/LINEX -
Esebenza okhuleni olunamaqabunga abanzi.

Kudingeka izeluleko zochwepheshe ukuze uqonde ukuthi izibulali-khula zisebenza noma zisetshenziswa kanjani.

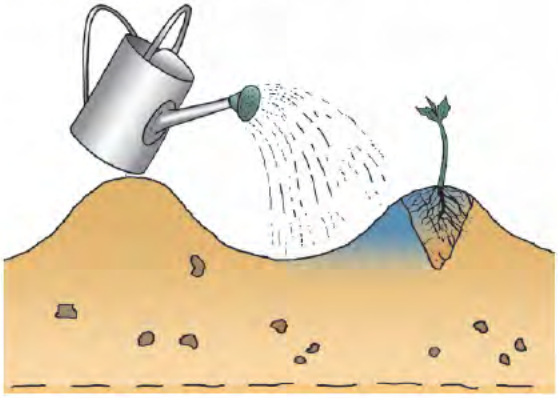


Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

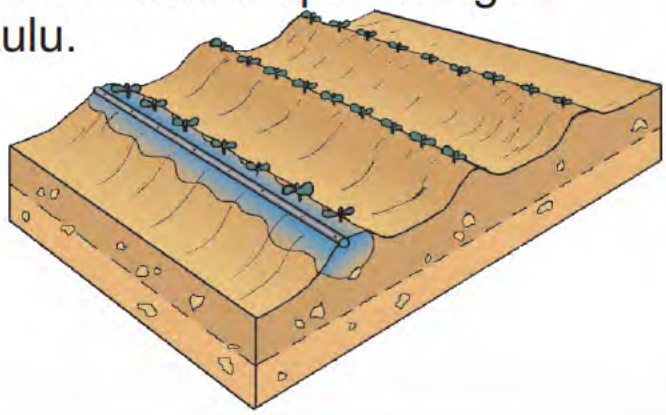
UKUDINGEKA KWAMANZI

Ubhatata uyamelana nezinga elithize lesomiso, kodwa udinga okungenani u 400 mm wamanzi ngesikhathi ukhula ukuze ukhiphe isivuno esiphezulu. Uma imvula itholakala ngendlela efanele, ubhatata ungakhula ngaphandle kokuchelelwa lapha KwaZulu-Natal.

Uma lomisile izulu chelela ngokushesha ngemuva kokutshala.



Ukuchelela ngamaconsi yikona okunconywayo kakhulu njengoba kungabhidlizi imibundu. Loluhlobo kodwa aluvumelani nokukhiqiza ezingeni eliphezulu.



Ukuchelela ngama sprinklas yikona okujwayelekile kakhulu.

YIMA ukuchelela kusasele amasonto amabili ngaphambi kokuvuna ukuze ubalekele ukubola kwezimpande.

UKUVUNA

Enhlabathini izimpande ziyaqhubeka nokukhula uma izimo zonke zisavuma. Vuna ubhatata kuphela uma sewumkhulu ngokwanele. Yimba isihlahla esisodwa noma ezimbili ukuhlola ubukhulu.

- Ezindaweni ezipholile, ungqoqwane ubulala wonke amakhasi neziqu ukuze izimpande zime ukukhula kanti zingagcinwa enhlabathini kuze kudlule ubusika.
- Ezindaweni ezibandayo, ungqoqwane uyobulala izimpande ngaphezulu kweziqu namaqabunga ngakho-ke kumele ukuba izimpande zimbiwe.

Ukusiza ekuvuneni, nquma zonke iziqu namaqabunga bese usebenzisa lezoziqu ezingalinyaziwe ungqoqwane:
- ukuze wenze iziqu ezintsha, noma
- wenze IMIFINO, noma
- kuphakelwe izilwane.

Yimba ubhatata kuphela uma inhlabathi yomile.
- Sebenzisa imfoloko yokulima ukumba izimpande.
- Qaphela ungalimazi izimpande njengoba lokhu kungabanga ukubola.

Isivuno

Ungabheka isivuno esiphakathi kuka 1 no 2 kg ngesihlahla (isisindo) esisodwa (20 - 40 wamathani ngehakela).

Designed by J.S. de Vos, Extension Training Resource Development, Directorate: Education, Cedara, KwaZulu-Natal

UKULASHWA NOKULONDWA

Izimpande zingalashwa uma kufudumele, komile ngokuba zibekwe izingqumbi ezimbozwe ngeminyombo neziqu ensimini. Lokhu komisa yonke imihuzuko nama nxeba adaleke kuvunwa, bese izimpande zigcineke isikhathi eside.

Ungazishiyi izimpande (ubhatata) ensimini uma lina noma kubanda kakhulu.

Uma sewulashiwe izinsuku eziwu 10, wugcine endaweni epholile eyomile.

UKUKHULISA IZIQU EZIMPANDENI

Uma iziqu zingatholakali, zingahlunyiswa ezimpandeni (ubhatata). Lezizimpande zingatholakala:

- Esivunweni esambiwa sagcinwa kahle;
- Izimpande ezingavunwanga zasala enhlabathini;
- Izimpande ezithengwe esitolo.

Ezindaweni ezinongqoqwane omncane, izimpande ziyofufusa zikhiphe iziqu ezintsha entwasahlobo ngemuva kongqoqwane wokuqara. Ezindaweni ezingena ngqoqwane, izimpande zingatshalwa unyaka wonke.

Izimpande ezivuniwe kumelwe zitshalwe zithothane emibhedeni noma emiseleni.

Mboza ngenhlabathi engu 5cm uwugcine uswakeme.

Ezimpande ziyoqhuma zikhipe iziqu ezingagcina sezinqunyiwe zalungela ukutshalwa.

Physical Address
01 Cedara Road
Pietermaritzburg
3200

Postal Address
KZN Department of Agriculture & Rural Development
Private Bag X9059
Pietermaritzburg
3200
Tel: 033 355 9100/Fax: 033 355 9122
Toll-Free: 0800 000 996
Email: callcentre.agriculture@kzndard.gov.za
Internet: kzndard.gov.za
Intranet: http://home.kzndard.gov.za

KwaZulu-Natal Department of Agriculture and Rural Development

@KZNDARD