



Dimba la Keyhole Garden

Buku la alimi ndi aphunzitsi

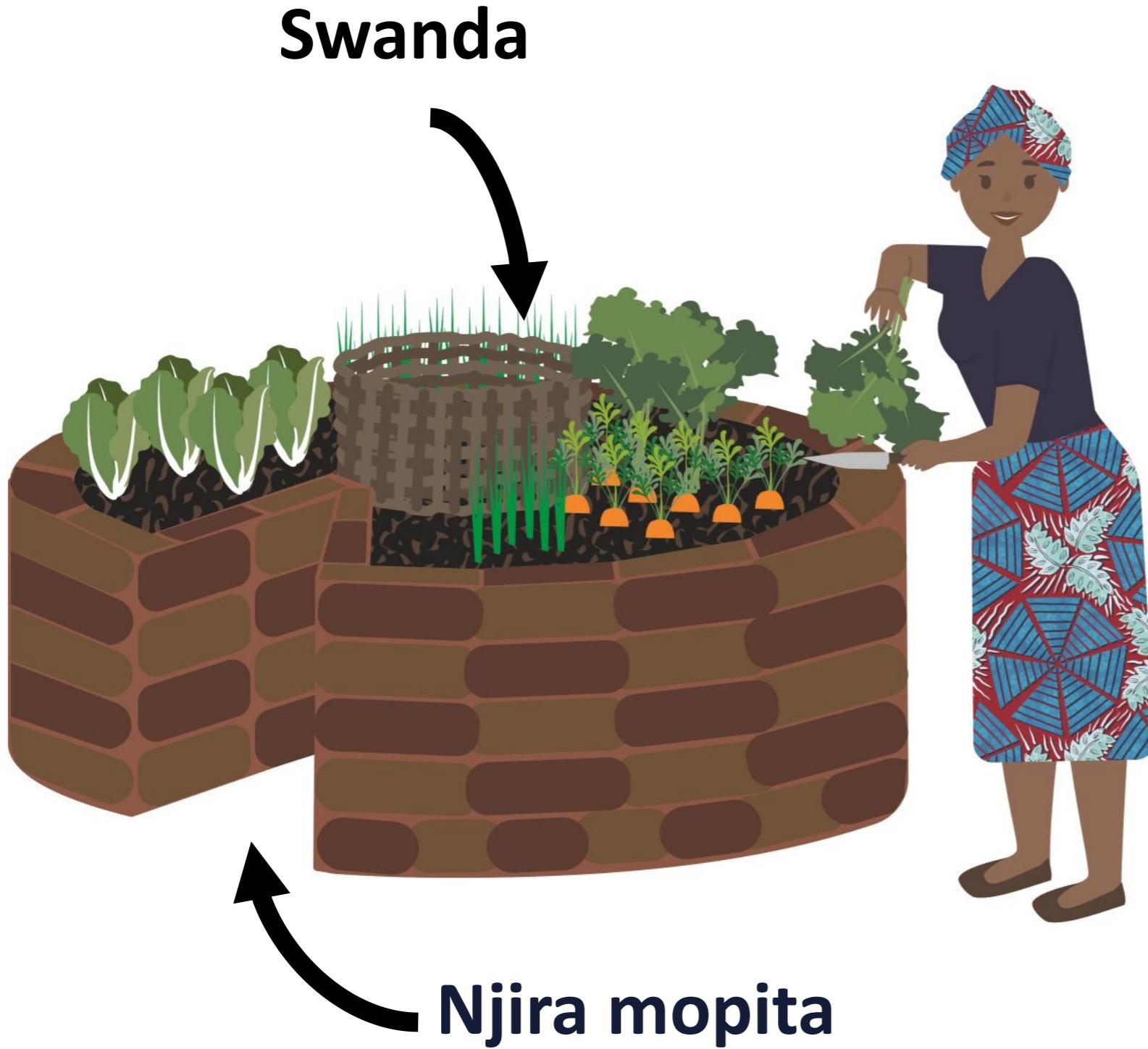
(Chifukwa, Kuti, Chiani,Liti ndipo Motani)



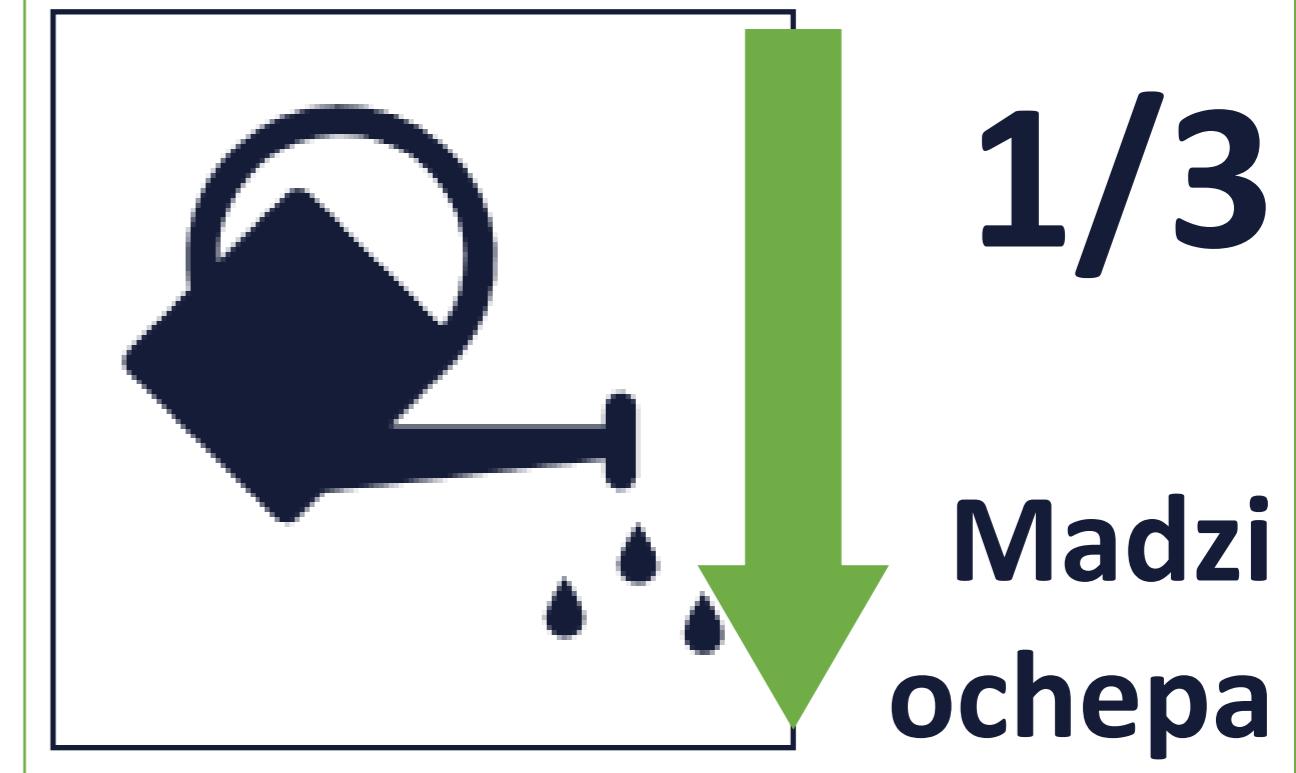
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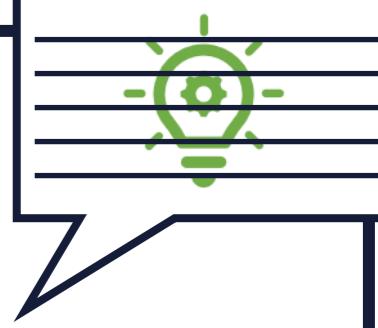
KODI DIMBA LA KEYHOLE GARDEN NDILOTANI?



Chonde Onetsetsani!



Kodi dimba la Keyhole Garden (KHG) ndilotani ?



Dimba la keyhole garden ndi mu bed wapamwamba wozungulira womwe ulinso ndi kanjira mopita, ndi swanda yoluka monga mng'oma yoimika pakati mothira zoolera komanso mothirilira madzi.

Ndi lochedwa keyhole gadren chifukwa njira mopita ndi swanda pakati pa dimba, zimaoneka ngati m'bowo wa kiyi ukazipenya kuchoka m'mwamba.

- ⊕ **Kusebenzensha madzi ang'ono**
- ⊕ Silifuna madzi othilirira pafupi pafupi
- ⊕ Limasunga madzi chifukwa cha mapangidwe ache okhala ndi zinyalala
- ⊕ Limasunga mnyontho ndipo limabweretsa nthaka ku dothi kuzera mu zoolera zomwe zimaola.
- ⊕ Zoolera zimapangitsa kuti madzi alowe bwino mbali zonse za dimba
- ⊕ Kuchepa kwa dimba kumateteza madzi kukamukira



PHINDU LA KEYHOLE GARDEN



Chonde Onetsetsani !



Kusebenza madzi ang'ono



Kusebenza mphamvu zochepa



Kudya zamasamba zambiri

4+

Kubyala mbeu zinai zosiyana-siyana



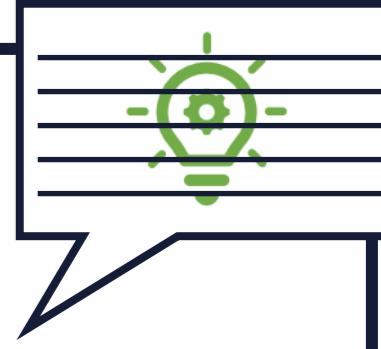
Pafupi ndi nyumba yanu



Losadula, losavuta kumanga

Phindu la Keyhole Garden?

 Dimba la keyhole garden ndi m'lowa malo weni weni wa dimba lomwe tima lima la chizolowezi, dimba la ku msinje. Keyhole garden ndi chisulo chomwe chingathandize kupititsa patsogolo kudya zakudya zosiyana siyana za masamba chaka chonse

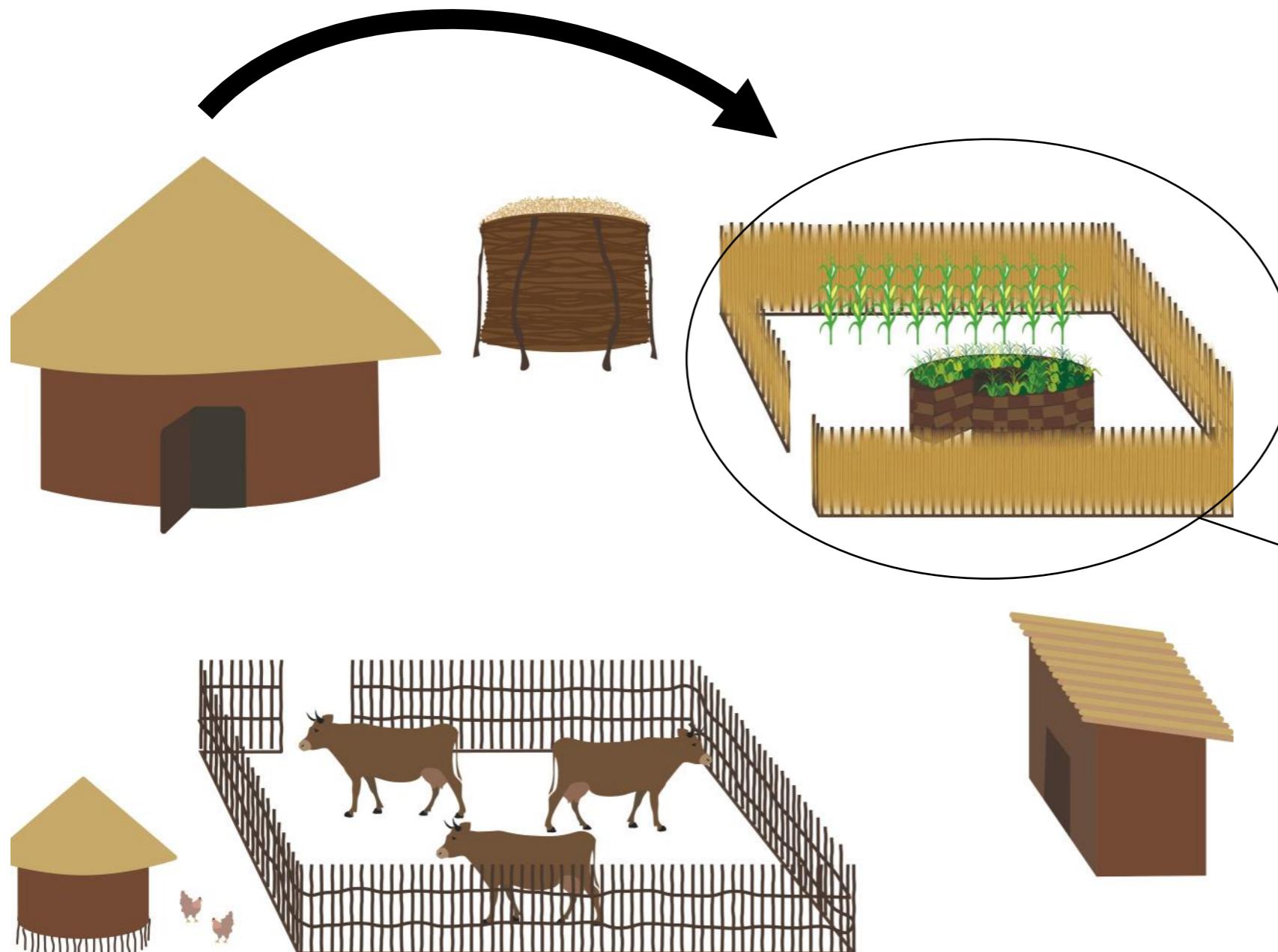


⊕ Phindu

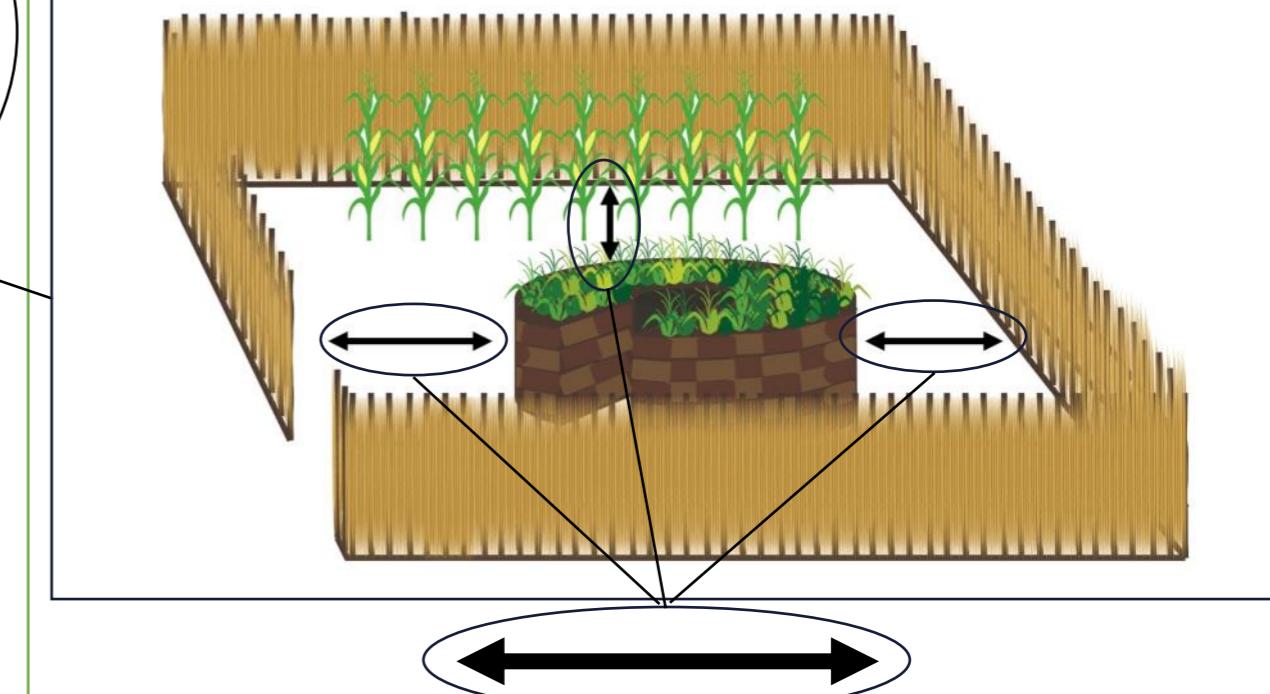
- ⊕ Limasunga mnyontho mu nthawi ya m'malanga ndipo **lisebenzesza madzi ang'ono.**
- ⊕ Kusebenzesza mphamvu zochepa-mwaichi, anthu olemara kapena odwalirira mu banja angakwanise kusebenza mu dimbali.
- ⊕ Limabereka ndiyo za **masamba zambiri za thanzi** pa malo ochepa.
- ⊕ Limalola kubyala **mbeu zinai za masamba zosiyana siyana** pa nthawi imodzi, kupititsa patsogolo kadyedwe ka thanzi pa banja.
- ⊕ Silifunika malo akulu – **likhoza kumangidwa pafupi ndi nyumba yanu.**
- ⊕ **Losadula, losavuta kumanga** ndi kusamala.

KUSANKHA MALO A KEYHOLE GARDEN

Dimba la Keyhole garden pafupi ndi nyumba

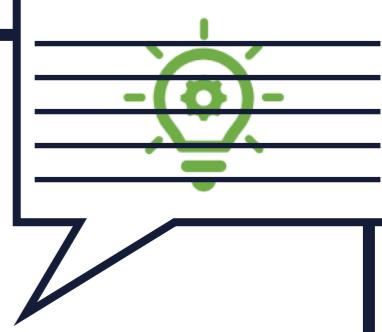


Chonde Onetsetsani !



=Nthambulo imodzi
(1 meter)

Kusankha Malo a Keyhole Garden



Dimba la Keyhole garden

lifunika kukhala pafupi ndi nyumba. Malo omangirapo dimba afunika kukhala patali ndi Mthunzi, koma pafupi ndi nyumba kuti kusamala mbeu kukhale kosavuta.

Malo omangapo keyhole garden ayenera kukhala akulu kuti alole kumanga mpanda ozungulira dimba kuteteza ziweto ndi mbala.

⊕ **Malo a dimba afunika kukhala:**

⊕ **Akulu bwino**

(nthambulo zinai mkatı [4 meters])

⊕ **Kopanda zinthu zosokoneza**

(Miyala zikulu zikulu kapena mitengo siziyanera kupezeaka pa malopo kuti pasavute pa nthawi yomanga)

⊕ **Pa mtetete**

(Kulola mbeu kuti zilandire mphamvu ya duwa kuti zikule bwino mwa thanzi)

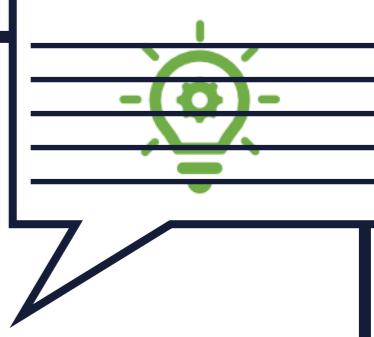
KUKONZA MALO A KEYHOLE GARDEN



Chonde Onetsetsani !

Nthambulo ziwiri
(2 meters)

Kukonza malo a Keyhole Garden



Ndondomeko:

Nthambulo
Ziwiri



Konzani nthambo - nthambulo ziwiri mu utali mongo chitenje chimodzi muutali. Pambuyo pake, pimani ndi kulemba pamalo a dimba la keyhole garden kugwiritsa nchito nthambo mwapimayo.



Limani ndi kukonza pa malopo.



Salazani malowo kuti mukhale ndi chipupa chokhazikika bwino ndiponso kuti mulole madzi ndi zakudya kulowa bwino mdimba lonse la keyhole.



Pimani nthambulo imodzi (mongo chitenge muufupi) pakati pa chipupa cha dimba kufikila pa mpanda.

KUMANGA DIMBA LA KEYHOLE GARDEN(I)

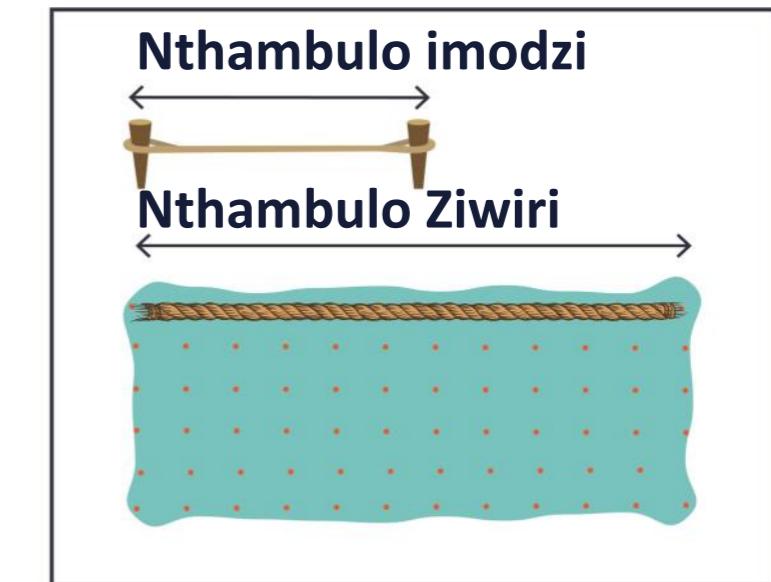
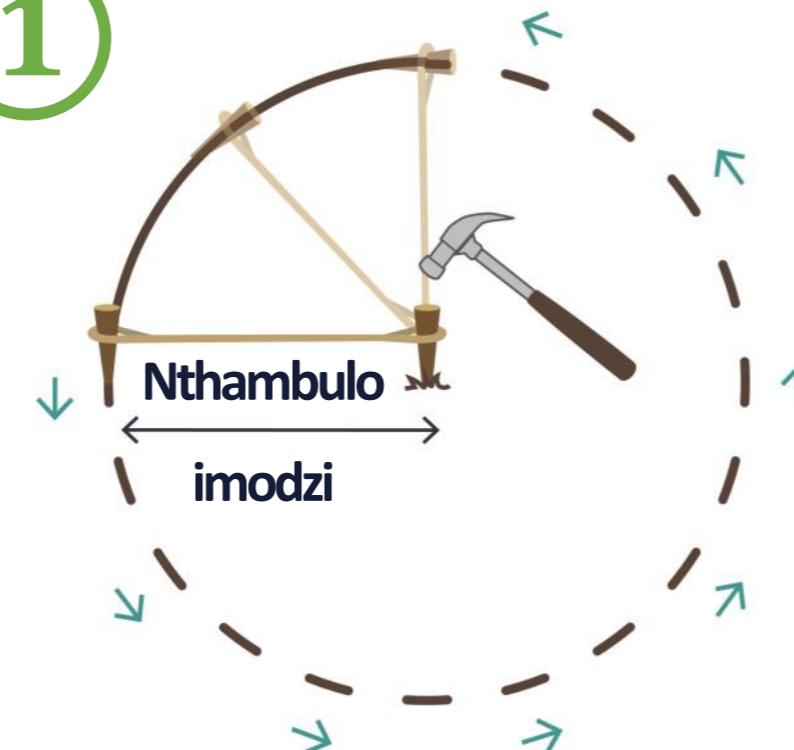


Chonde Onetsetsani

Zinthu zofunika:

- ⊕ Nchelwa zokwanira 550 zoshoka, mwina zadothi
- ⊕ Dothi la pa chulu
- ⊕ Madzi
- ⊕ Swanda
- ⊕ Zida zosebenzesza

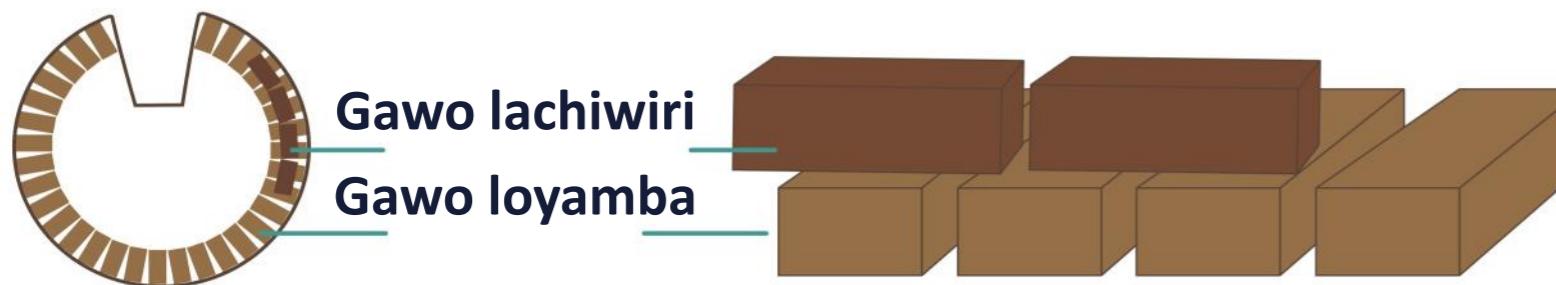
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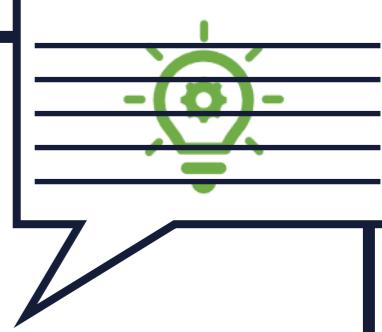
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Gwo lachiwiri
Gwo loyamba

Dzanja limozi (30cm)



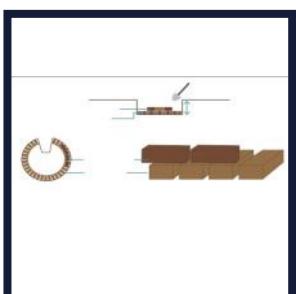
Kumanga dimba la Keyhole Garden



Onetsetsani Zomangila: Nchelwa 550 zoshoka mwina zadothi, Dothi la pa chulu, Madzi, Swanda, Nkhasu, Fosholo, Sando, Mtengo, Piki, nthambo ndi mpimo womangira



Pimani nthambo molingana ndi utali wa chitenje (nthambulo ziwiri). Petekani nthamboyo pakati ndipo mangani mphompho kumathero konse kuwiri. Khomani mphombo imodzi pansi pakati-kati pa malo omwe mwakonza.



Kumbani maziko yolowa dzanja limozi pansi (30cm) ndi kuyamba kumanga poyalika nchelwa cha m'mimba. Maziko afunika kumangidwa ndi nchelwa zoyalikidwa cham'mimba.



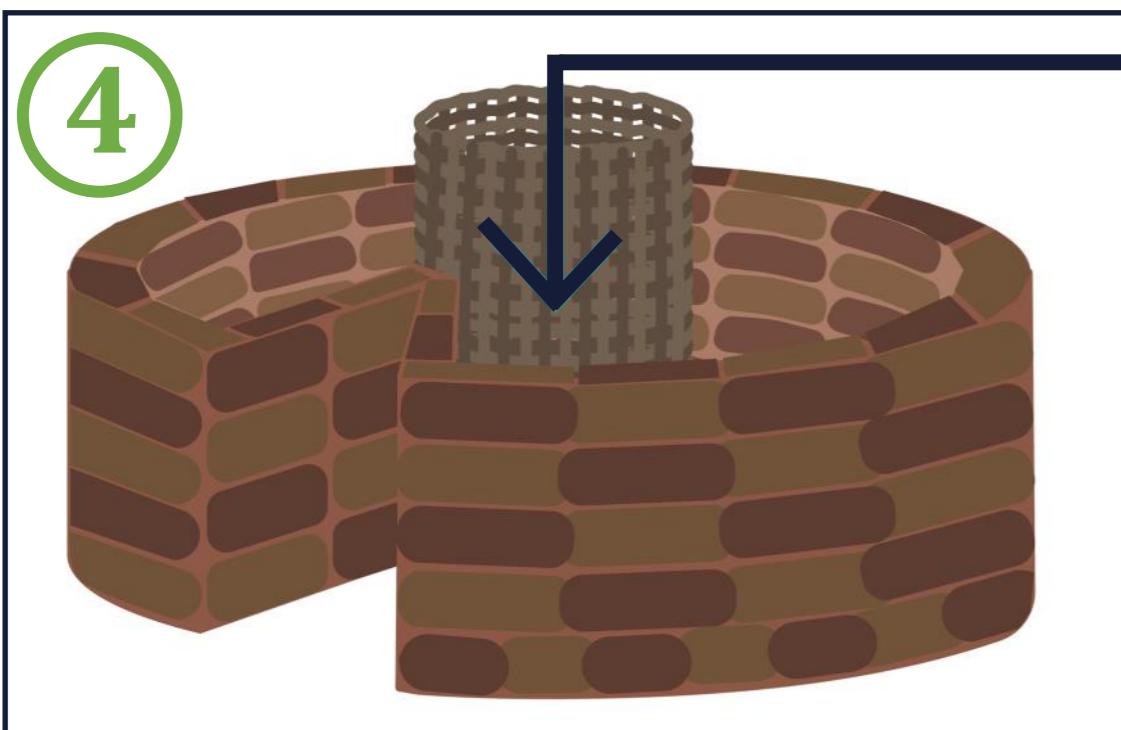
Pofuna kupima 30cm, gwiritsani nchito dzanja - kulinganiza utali ochokera kothera kufikira poyambilila dzanja la munthu wamkulu.

KUMANGA DIMBA LA KEYHOLE GARDEN (II)

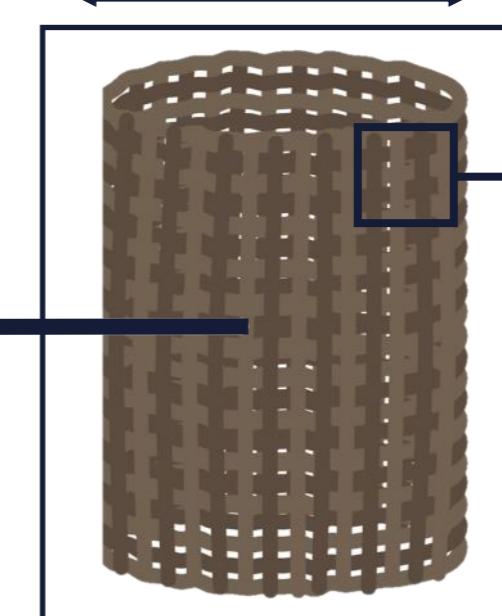
! Chonde Onetsetsani Note

Kugwiritsa nchito dothi
lapachulu ndi nchelwa za
dothi nizotheka.

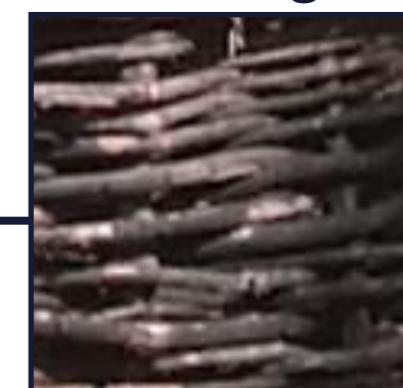
Koma nchelwa zoshoka ndi
cementi, zipanga dimba
la Keyhole garden kukhala
lolimba.



Ma centimita 50-80

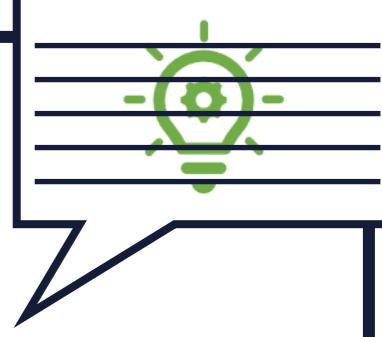


Tumitengo



Nthambulo imodzi
ndi Dzanja

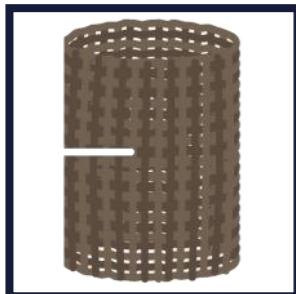
Kumanga dimba la Keyhole Garden



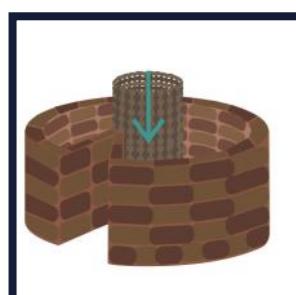
Ndondomeko



Mangani chipupa nthambulo imodzi mu utali kuchokera pa maziko kusebenzesza dothi la pa chulu losankhaniza ndi madzi.



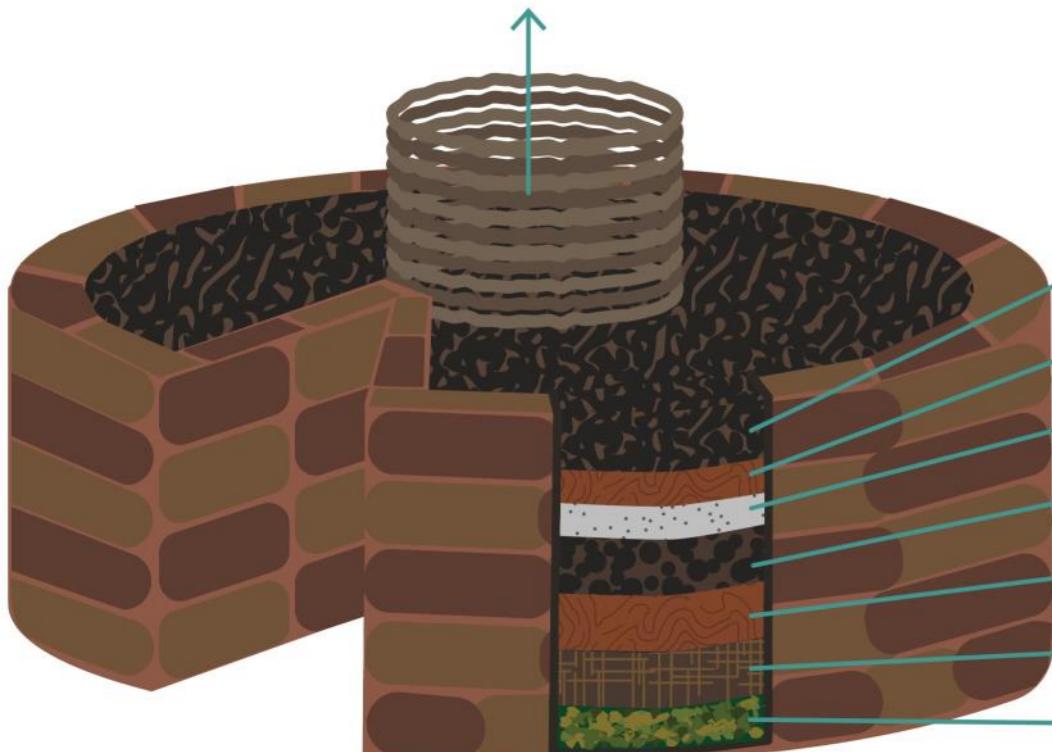
Pangani swanda pogwiritsa nchito tumitengo tukulu-tukulu tokwanira khumi limodzi ndi tuwili (12) toyenzekedwa pansi mozungulira (50—80cm), mwachisanzo mpimo wa manja atatu cham'mimba ndi kumanga mozungulira kusebenzetsa tumitengo tung'ono -tung'ono kufikila nthambulo ndi dzanja imodzi (1.3meters) mu utali.



Ikani swanda pakati-kati pa dimba la Keyhole garden pomwe muyamba kuikamo dothi, manyowa ndi zina. Swanda mu dimba limagwiritsidwa nchito yothiramo zinalala kuti ziwlere ndipo yimathandizango kuti madzi ndi nthaka zizipita ku mbali zonse za keyhole garden.

ZIGAWO NDI NTHAKA YA DOTHI MU KEYHOLE GARDEN

Swanda ya zinalala



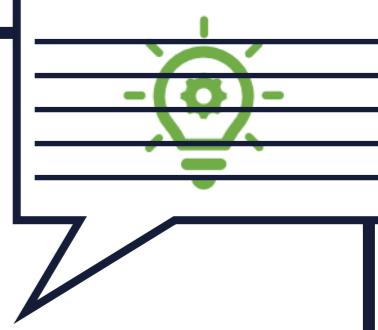
7. Dothi lapa mwamba losakaniza manyowa ndi zoolera
6. Dothi la pa chulu
5. Phulusa la mitengo
4. Manyowa
3. Dothi la pa chulu
2. Zouuma za zomela
1. Mayani a nthochi, dolopiyo (cactus), gavi (sisal)

Chonde Onetsetsani!

MAPULASITIKI YAYI!



MAGAWO NDI NTHAKA YA DOTHI MU KEYHOLE GARDEN



Pambuyo pomanga dimba la keyhole garden ndi kulola tsiku limodzi kapena awiri kuti liume, lidzadzeni ndi zinthu zofunikira izi:

1. Mayani a nthochi, dolopiyo, gavi	5. Phulusa la mitengo
2. Zouuma za zomela	6. Dothi la ma chulu
3. Dothi la pa chulu	7. Dothi lapa mwamba losakaniza manyowa ndi zoolera
4. Manyowa	

Thirani manyowa ndi zoolera mu dimba pa nthawi yomanga ndi pa nthawi yomwe mukuchita kasintha sintha wa mbeu. Pofuna kusunga nthaka ya dothi, onjezerani manyowa ouma ndi dothi la pa mwamba pamene izi zikubwerera pansi.

Zinthu zopangidwa ndi **Aluminium** kapena **Lead** sizifunika kuikidwa mu key-hole garden chifukwa ziophyeza chilengedwe.

⊕ Kuolesa Zinalala mu Swanda ya Keyhole Garden :

- ⊕ **Chifukwa nichani kuolesa zinalala?**
(Zoolera zimapereka zakudya zofunikira pakukula kwa mbeu)
- ⊕ **Mo'olesera Zinalala**
(Ikani zinalala zomwe zimaola mu swanda kuti zipitise patsogolo nthaka ya dothi. Osaika ma pulasitiki mu swanda)
- ⊕ **Osaikamo manyowa osauma!**
(Pewani kuika manyowa osauma a nyama mu Keyhole graden chifukwa yamatentha mbeu zing'ono zong'ono)



Chonde Onetsetsani !

ZOYENELA KUBWALA

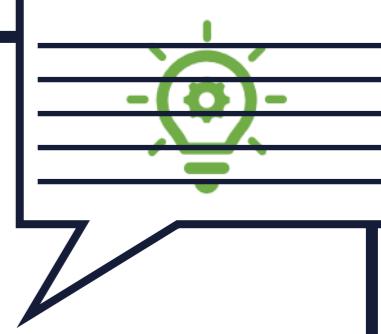
- Spinachi
- Bondwe
- Rape
- Mpilu
- Carrot
- Beetroot/Mkungu
- Ginger
- Anyenzi
- Chinese Kabichi
- Green Beans

Zamasamba
zobiriwira
kwambiri

Mbeu za
mizyu

Mbeu Zina

KUKONZEKERA NDI KUBYALA MBEU MU KEYHOLE GARDEN



Konzekerani kubyala njere za mbeu zobvomerezedwa za thanzi, zamasamba mu keyhole garden.

Byalani mbeu zosiyana siyana mu dimba la keyhole garden kuti mupeze phindu la malo anu, nthaka ya dothi komanso kusamaliridwe ka tudoyo.

Osalima mbeu zopitirira zinai za masamba mdimba la keyhole garden pa nthawi imodzi.

Mbeu zitamela, chotsani zina kuti zikhale ndi mpata ololedwa kuti muteteze mbeu kulimbana madzi, zakudya ndi dzuwa.

⊕ **Mbeu Zamasamba zololedwa:**

⊕ **Mbeu zobiliwira kwambiri za masamba**

(Spinachi, Bondwe, Rape, Mpilu, Lettuce)

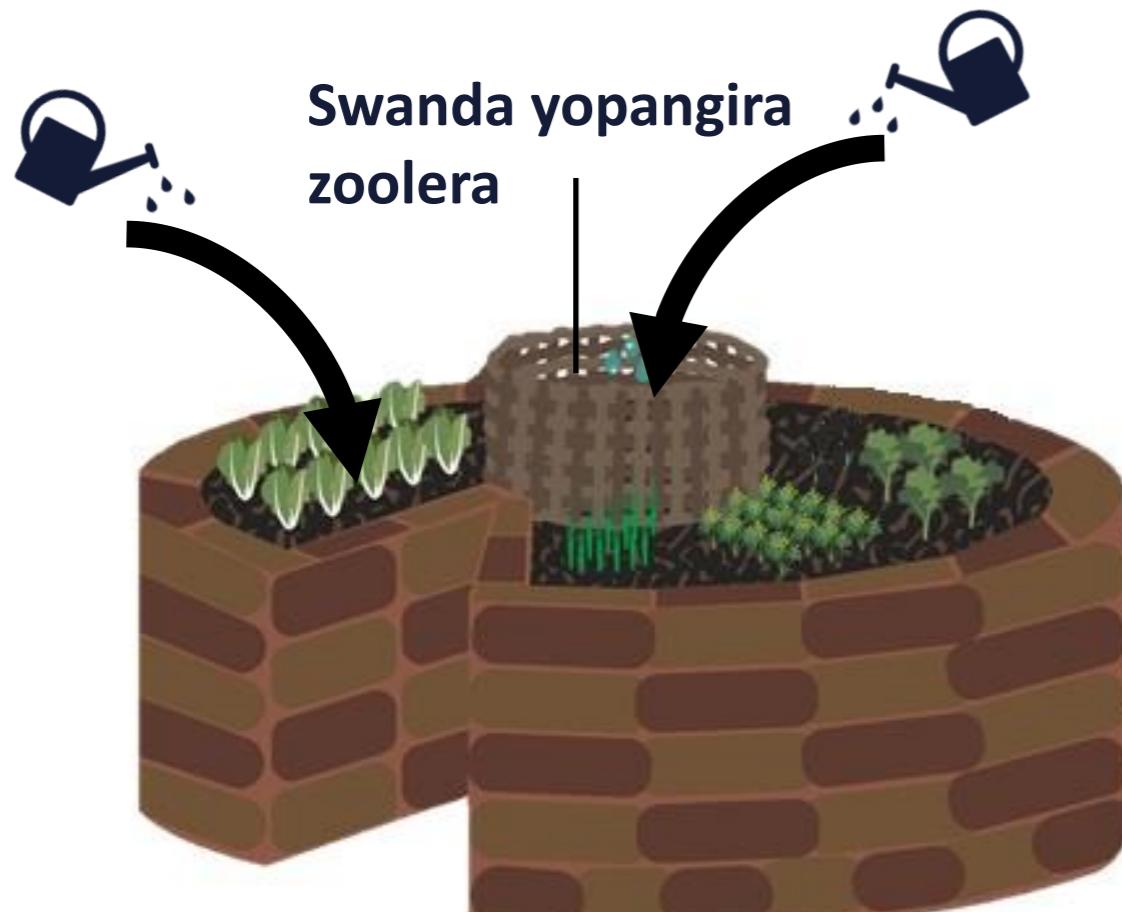
Mbeu za mizyu

(Carrot, Beetroot/mkungu, Ginger, Anyenzi)

Mbeu zina

(Chinese Kabichi, Green beans, Herbs ndi masipaisi/zonunkhirtsia)

KASAMALIDWE KA MBEU MU KEYHOLE GARDEN



Chonde Onetsetsani



KUSAMALIRA MBEU KU TUDOYO NDI MATENDA

⊕ **GWIRITSANI NCHITO NJIRA MONGA KASINTHA SINTHA WA MBEU, KULIMIRA MBEU PAMODZI NDI ZOMWE ZIPEWETSA TUDOYO, KULIMA MBEU MOSAKANIZA**

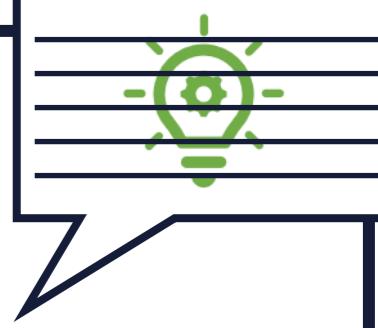
⊕ **CHOTSANI UDZU NDI MANJA**

⊕ **GWIRITSANI NCHITO ZINTHU ZACHILENGEDWE MONGA:**

- ⊗ *MPHILIPIRI YOGAYA*
- ⊗ *MAYANI A PAPAYA*
- ⊗ *FODYA OGAYA*
- ⊗ *ANYENZI WOFIIRA*
- ⊗ *GARLIC OGAYA*
- ⊗ *MADZI A NEEM/MBULUGAMU*
- ⊗ *MADZI A MANYOWA YA NG'OMBE*
- ⊗ *GLIRICIDIA*
- ⊗ *TEPHROSIA*
- ⊗ *MADZI A MORINGA*



KASAMALIDWE KA MBEU MU KEYHOLE GARDEN



Kuchosa Uzu:

Chotsani udzu onse m'dimba la Keyhole garden ndi manja, foloko ya mdimba kapena ka khasu kakang'ono.

Udzu ukhozanso kuponderezedwa pouphimba ndi zinalala



Kuthirira madzi:

Pothirira madzi, thiraninso madzi mukati mu swanda kuti zinalala ziole komanso kuti nthaka yipite mu mbali yonse ya keyhole garden.

Munthawi yamalanga, thirani zigubu ziwiri kapena zitatu zolemera malita 20 (20 litres) pa tsiku.

Pewani kuthilira mbeu ndi madzi amchere, kuikamo zakudya za mchere kapena zinthu zomwe siziola.

⊕ Kasamalidwe ka mbeu

ku tudoyo ndi matenda:



Kusamala ndi chiani?

Zinthu zosebenzes: Mphilipiri yogaya, Mayani a papaya, Fodya ogaya, Hanyenzi ofiira, Garlic ogaya, Madzi a Neem/mbulugamu, madzi a manyowa ya ng'ombe, Gliricidia, Tephrosia, Madzi a Moringa kapena, Moringa ogaya



Kusamalila motani?

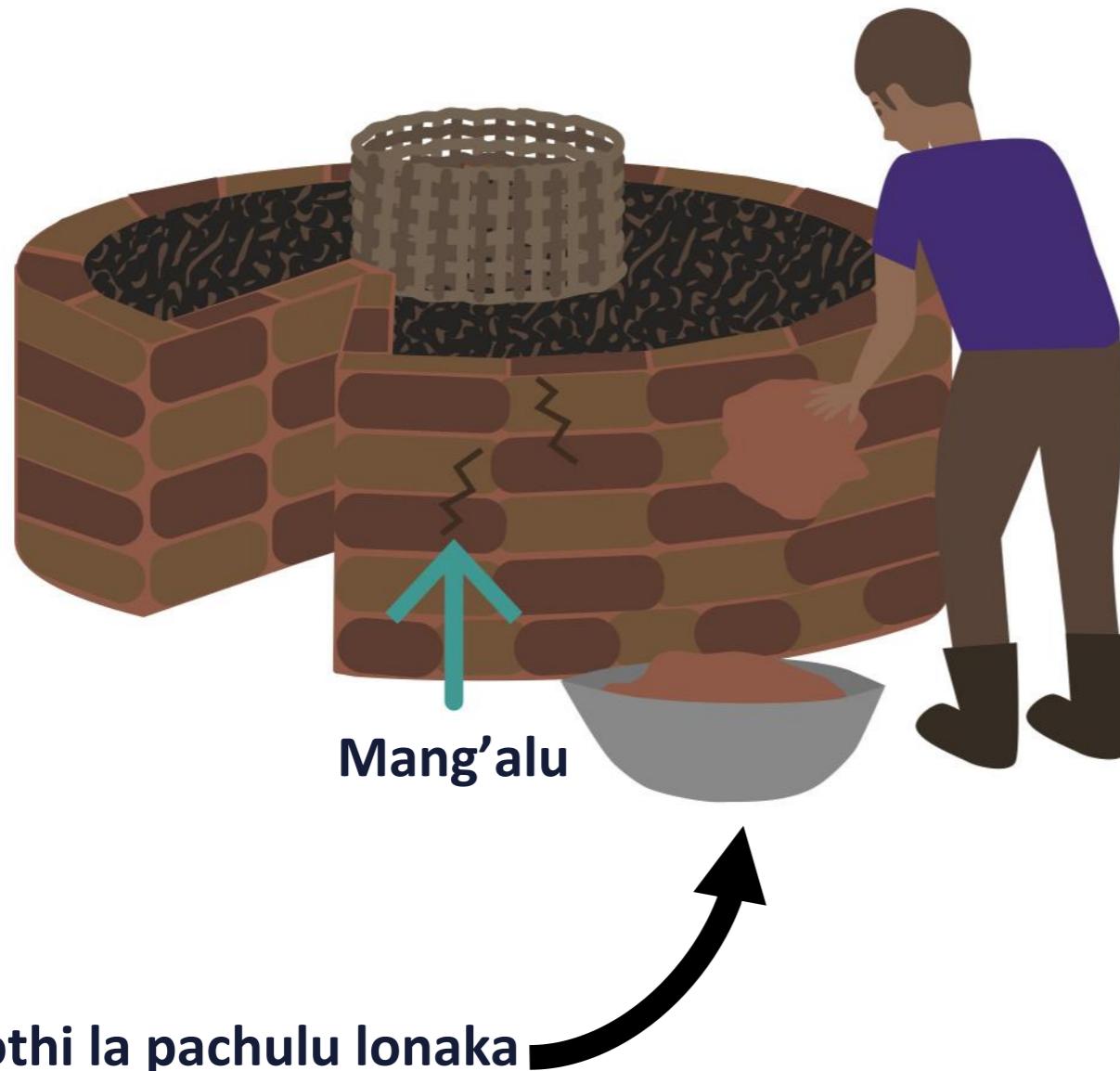
Mukhoza kusakaniza zinthu ziwiri kapena zitatu zomwe zachulidwa pamwamba ndi kuzisusika m'madzi kwa mphindi makhumi awiri ndi zinai (24hrs) ndipo mutha kupanga madzi yomwe yakwaniritsa kugwebana ndi tuduyo kapena matenda



Kugwiritsa nchito mankhwala yachizungu

Izi nizosaloledwa, chifukwa zimaononga chilengedwe ndipo zipeleka chiophyezo ku anthu maka maka azimai apakati ndi ana ag'ono

KASAMALIDWE NDI KULUMBISA DIMBA



Chonde Onetsetsani !

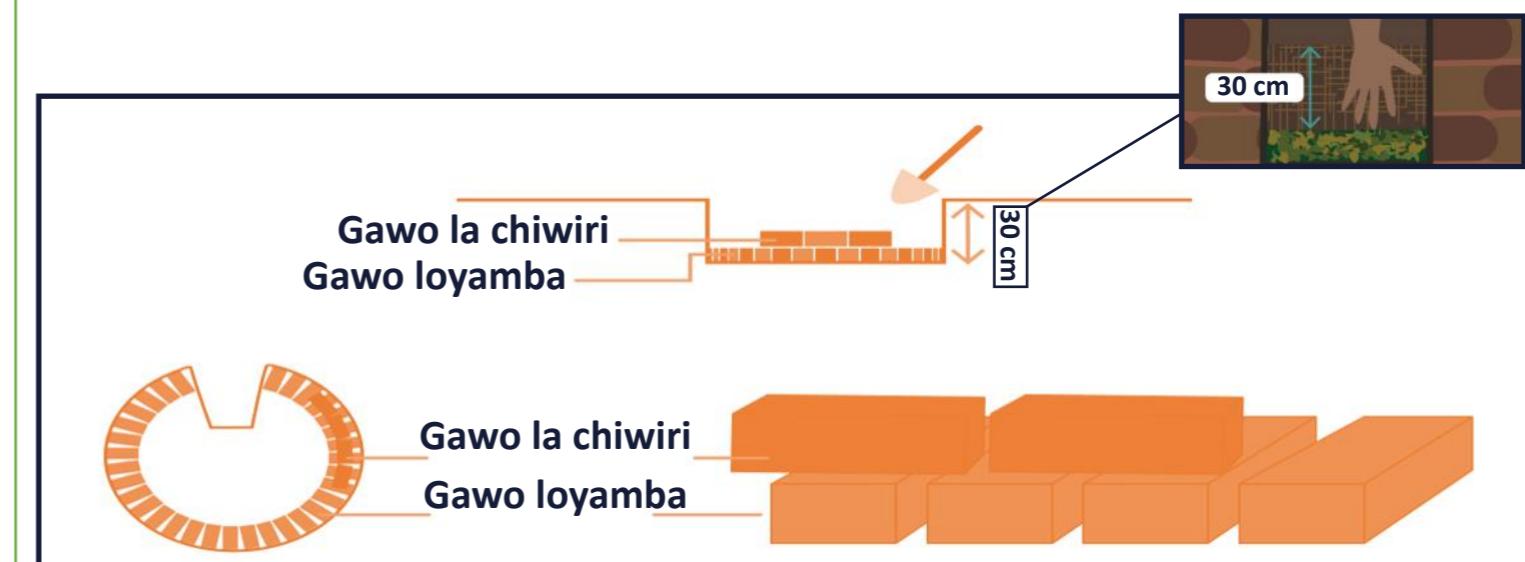
KULUMBISA CHIPUPA



Nchelwa 550
zoshoka

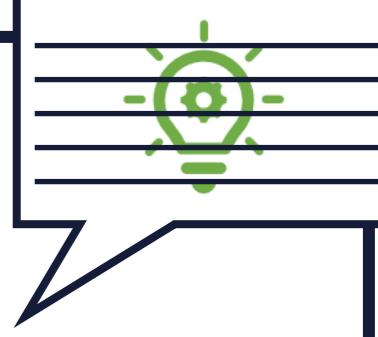


Mathumba atatu
a cement



Maziko omagidwa ndi nchelwa
zoikidwa cha m'mimba

KASAMALIDWE NDI KULIMBISA KEYHOLE GARDEN



Pewani kusamira ku chipupa pa nthawi yothirira ndi yothyola ndiyo, ndipo kulima mbeu za mizyu yitali m'dimba la keyhole garden.

Sungani malo ozungirira dimba la keyhole garden mwaukhondo, ndipo samalilani mpanda ozungurira dimba kuti muteteze ziweto ndi mbala.

Mang'alu afunika kukonzedwa mwamsanga pogwiritsa nchito cementi kapena dothi la pachulu lonaka kuti muteteze kutayika kwa madzi komanso kugwa kwa chipupa.

Nthawi zonse sinthani swanda ikaonongeka.

⊕ **Mangani dimba la Keyhole Garden lokhalitsa: Chifukwa?**

Dimba la Keyhole garden lomangidwa ndi nchelwa za dothi likhoza kugwa patapita nthawi, koma dimba la keyhole garden lomangidwa ndi nchelwa zoshoka ndi cement limalimba ku mvula ndipo likhala nthawi yitali.

Likhala nthawi yitali motani?

Pomanga dimba la keyhole garden lokhalitsa nthawi yitali, gwiritsani nchito zinthu izi:

- ⊗ Nchelwa zoshoka zili 550
- ⊗ Mathumba atatu a Cement
- ⊗ Maziko yolimba, yolowa pansi yomangidwa ndi nchelwa cha m'mimba

Dimba la Keyhole Garden

Buku la Alimi ndi Aphunzitsi (Chifukwa, Kuti, Chiani, Liti ndipo Motani)

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Kujambila kapena kulembanso zili mubukuli mobwereza, kwathunthu kapena pang'ono chabe
kuyenera kuchula mutu wa bukuli ndi kupereka ulemu kwa wolemba bukuli pokhala mwini wache.

Bukuli linalemedwa ndi chithandizo chochokela ku:

Food and Nutrition Security, Enhanced Resilience Project (FANSER)

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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Lusaka, Zambia

Moimilila mbali ya:

Federal Ministry for Economic Cooperation and Development (BMZ) Germany



KUDYA ZATHANZI

KUDYA ZAMAGULU OSIYANA-SIYANA

KUDYA ZOSIYANA-SIYANA

MAGULU AZAKUDYA

