

ULIMI OKHAZIKIKA

PEMAKACHA

Olemba: Luwayo Biswick



KUKOLORA ZOCHULUKA, MPHAMVU NDI ZIPANGIZO ZOCHEPA PA MALO OCHEPA



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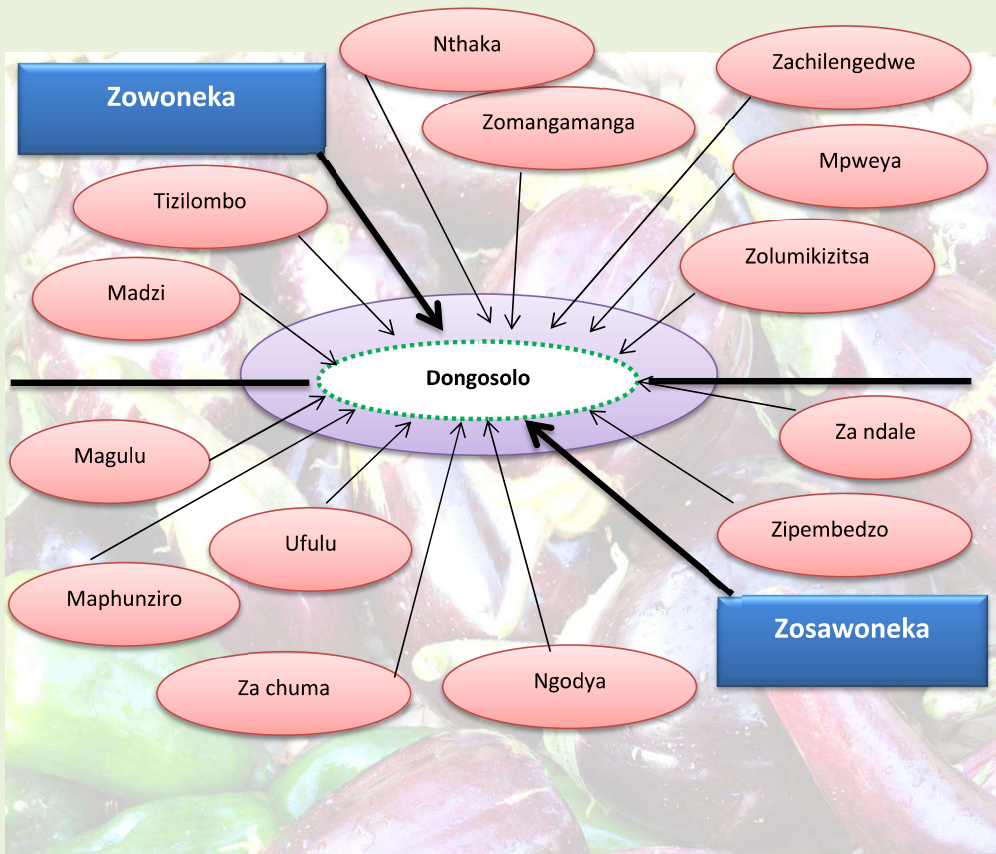
Kuthokoza

Pali anthu ambiri amene atengapo mbali kuti bukhu limeneli lifike pamenepa ndipo ngakhale ndikosatheka kutchula m’modzim’modzi komabe landirani kuthokoza kwanga. Kwa mkazi wanga Grace ndi mwana wanga Princess landirani ulemu wopambana pondipanga kukhala munthu wolozeka ku anthu chifukwa cha chisamaliro ndi malangizo anu. Kwa Makolo anga ndimanyadira chifukwa chondipatsa mpata kuti nanenso ndi badwe komanso kundisamalira mpaka ndakula. Kwa a nzanga wonse landirani ulemu wanu

CHIYAMBI

Ulimi okhazikika kapena kuti pemakacha, ndi uphumpu wa dongosolo limene limatilumukizitsa ife anthu ndi chilengedwe chonse

Ulimi wokhazikikawu umatithandizira kutizindikiritza za ulumikizi wa zinthu zonse zopezeka pa dziko la pansi, mwa chitsanzo, *zomera zosiyana-siyana, nyama, zomanga manga, madzi, mpweya, nthaka, dzuwa* Kuphatikiza zolengedwa zonse pogwira ntchito ngati chinthu chimodzi mu chilengedwe. Zinthu zonsezi zimagawidwa mu magulu awiri okha basi, **zowoneka** komanso **zosawoneka** ndi maso



Komabe tikamapanga dondosolo kapene kuika zinthu pamodzi sitiganizira kwambiri za kuchuluka kwa zinthuzo, koma ulumikizi wake makamaka posamalitsa ntchito imene chimodzi chimodzi mwa zinthuzi zimagwira ndi kuwona kuti ndi chinthu chiti chimene chingapindule ndi ntchito zimenezi, kotero pemakacha (*chikhalidwe chokhazikika*) ndi mmene zinthu zonse zikulumikizilana osati kuchuluka kwake

Mawu onena kuti pemakacha ndi mawu a chingelezi ndipo anapangidwa kuchoka ku mawu awiri

- a. Permanent.....Kukhazikika
- b. Culture.....Chikhalidwe, kapena kuti machitachita athu a tsiku ndi tsiku

Mu zaka zapitazo (cha m'ma 1970's) M'kulu wina wotchedwa **Bill Mollison** wochokera mu dziko la **Ositelia** mothandizana ndi mzake **David Holmgren** ndi amene anayambitsa pemakacha pofuna kupeleka mayankho ku mavuto onse amene dziko lonse lapansi likukumana nawo mwa

chitsanzo: Kusowekera kwa zakukudya zoyenera , kusintha kwa nyengo, kuwonengeka kwa zipangizo zotithandizira mu njira zosinasiyana, kukokoloka kwa nthaka, kuwonongeka kwa mpweya, kusowa kwa madzi abwino, mulili wa edzi, nkondo ndi zina zambiri. Azathu amenewa anapeza kuti mwa mavuto onsewa makamaka gwero lake ndi malimidwe a makono amene timataya m'zeru ndi chikhalidwe cha makolo komanso chilengedwe pogwiritsa ntchito zipangizo zowononga chilengedwe monga feteleza ndi mankhwala oopera mbewu

M'fundo zonse za pemakacha ndi dongosolo lake lonse zagona pa m'mene chilengedwe chimachitira, chifukwa palibe ndi m'modzi yemwe amene amakathilira, kugawura ngakhale kuthira feteleza muchilengedwe komabe chilengedwecho chimakhala popanda kugula zonsezi, ndi zodabwitsa kuti mwa zolengedwa zonse ndi anthu okha amene amalipira kuti azikhala ndi moyo pa dziko la pansu, ichi ndi chifukwa chake sipadzapezeka ulimi umene ungadzathetse mavuto onse kopambana okhawa umene umatangera dongosolo la chilengedwe

Pophatikiza m'zeru za makolo pemakacha imatithandizira ndi kutiphunzitsa za m'mene makolo athu amakhala pa ubale ndi chilengedwe, ichi ndi chifukwa chake makolo athu amakhala zaka za zambiri komanso osadwala dwala, koteru tikatenga mfundo za chilengedwe, mzeru za makolo kuphatikiza ukadaulo ndi luso la za sayansi za makono, tikhoza kubwenzeretsanso paradiso kapena edeni wa kalero, koma tikadalira sayansi yokha dziko lonse lidzaonongeka osadzabweleranso

GAWO 1

NGODYA ZA PEMAKACHA

Ngodya ndi zikhukulupiliro zotitsogolera mmene tingakhalire pa dziko pano ndipo ndi zimene zimatitsogolera kuti tifikire chiyang'aniro chathu

Pemakacha ili ndi ngodya zitatu ndipo ngodyazi ndi zimene zimasiyanitsa pemakacha ndi maphunziro ena komanso malimidwe ena onse

1.kusamalira dziko

Chinthu chilichonse cholengedwa chili ndi ntchito yake ndipo kupezeka kwake ndi kumene kumapangitsa kuti chinthu chinanso chikhale ndi moyo, koteru kuti popanda chimodzi mwa zinthu zimenezi chinacho sichingakhalepo

Izi zili chimodzi modzi ndi ife anthu, timakhala ndi moyo chifukwa cha kupezeka kwa zinthu zonse za pa dziko lapansi zooneka ngakale zosaoneka ndi manso, koteru tikapanda Kusamala zinthu zimenezi ndi kulolera kuti zithe osadzapezekanso, nefenso moyo wathu ukhoza kuthera pomwepo, ichi ndi chifukwa chake mmalimidwe athu ndi machitachita athu a tsiku ndi tsiku

tiyenera kuwonetsetsa kuti sitikuwononga za chilengedwe zonse zopezeka pa dziko la pansi za moyo ngakhale zopanda moyo, mwa chitsanzo:

- Tikuyenera kuteteza komanso kusamalira nthaka ndi zonse zokhalamo
- Kusamalira madzi athu ndi kuwonetsetsa kuti palibe china chilichonse chimene chingawononge ngakhale kupangitsa kusowa kwa madziwa
- Kusamalira ndi kuteteza nkhalango zathu
- Kusamalira nyama za kuthengo ndi zoweta zomwe
- Kusamalira ndi kuteteza mpweya ndi zina zambiri

2. kusamalira anthu

Kusamalira dziko kumalumikizana ndi kusamalira anthu popeza china chilichonse chimene anthu amafuna monga chakudya, malo okhala, mpweya ndi zina zambiri zimapezeka pa nthaka, ndipo ndi pokha pokha anthu ataphunzitsidwa mmene angathe kusamalirira dziko ndi pamene angathe kupeza zosowa zawo kuchokera ku dziko.

Ngodya yachiwiri imatiphunzitsa kuti mmalimidwe athu ndi machitachita ena onse tiwonetsetse kuti akufikira zofuna za anthu nthawi zonse koma pogwiritsa ntchito njira zokhazo zimene sizingawononge chilengedwe mwa chitsanzo:

- Kuwonetsetsa kuti anthu ali ndi malo abwino ndi otetezeka
- Kuwonetsetsa kuti anthu akupeza chakudya cha magulu onse nthawi zonse
- Kuwonetsetsa kuti anthu ali ndi madzi abwino nthawi zonse
- Maphunziro abwino
- Kuwonetsetsa kuti anthu ali ndi mwayi wa ntchito ndi zina zambiri

Ngati ulimi wathu ndi machitachita a moyo wathu zikupanga anthu kukhala akapolo, amphawi, kuphwanya ufulu wawo ndi zina zambiri, dziwani kuti ulimi umenewo sungakhale okhazikika

Ulimi okhazikika umasamalira za chilengedwe zonse komanso kupeleka zofuna zonse za anthu ndipo ndi ulimi okhawo umene umapeza zofunikira zake zonse pa malo omwewo, koma ngati ulimi wanu umatulutsa phindu lake pogwiritsa ntchito zinthu za kunja, umenewo siwokhazikika mpang'ono pomwe dziwani kuti ndikulakwa kuwutchula ulimi umenewu kuti ndi wokhazikika

3. kugawana komanso kuchepetsa kuwonongeka kwa zinthu za chilengedwe

Tikasamalira nthaka yathu ndi chilengedwe chonse timakhala ndi phindu losiyanasiyana kuchokera ku zinthu zosiyana siyananso, koma ngati zinthu zimenezi sizingawilitsidwe ntchito moyenera zimabweretsa mavuto ambiri ndipo zimasintha kuchoka pa zofunikira ndi kukhala zopanda ntchito

Ichi ndi chifukwa chake pali ngodya ya chitatu imeneyi imene imathandizira uphumpu wa ngodya ziwiri zoyambilirazo, mwa chitsanzo:

- Ngati muli ndi ziweto ndipo zimakupatsani manyowa, ngati sikugwiritsa ntchito manyowa amenewa amayamba kutulutsa fungo ndi mpweya woipa ndi wowononga, koma ngati mutawagwiritsa ntchito ndiye kuti mwathandizira kusamalira nthaka imene idzatulutse zokolora zimene zidzathandizire kusamalira anthu, mu njira imeneyi mwagawa ku dziko ndi anthu
- Kugawana zonse zimene tili nanzo ndi azathu monga, chakudya, mzeru, malo, mwayi wa ntchito ndi cholinga chakuti tikhale mmoyo wodzichepetsa kuti ena apeze mpata wokhalanso ndi kupeza zosowa zawo padziko pano

Kuchepetsa kuwonongeka kwa zinthu zina mwa chisawawa kumathandiziranso uphumpu wa ngodya ziwiri zoyambilirazo

NGODYA ZA PEMA KACHA (ULIMI OKHAZIKIKA)



MFUNDO ZIKULUZIKULU ZA PEMA KACHA

Dziko lonse lapansi lakhala likukumana ndi mavuto osaneneka pa nkhani ya malimidwe, sichifukwa cha kuti anthu alibe mphamvu ndi mzeru ayi, koma chifukwa anthu adataya mzeru za makolo, komanso anasiya chitsanzo cha malimidwe chimene chimapezeka mu chilengedwe ndi kupanga malimidwe awo-awo achilendo monga kubzala mbewu imodzi basi malo ake-ake kulambula ndi kuwotcha zomera zonse mmundamo, kuthira makhwala ndi feteleza komasno kupha nyama iliyonse yopezeka mmundamo, koma izi sizichitika sizinachitikepo ndipo zisidzachitikako mu chilengedwe chifukwa cha mfundo zimene chilengedwecho chimatsatira.

Mfundo zimenezi ndi zimene pemakacha imatsatira pofuna kupanga malimidwe ndi makhalidwe athu kuti akhale okhazika. Mfundozi zilipo zambiri koma zina mwa izo ndi zimene zalembedwa mmunsimu

- **Ubale wa zinthu :** Chinthu chilichonse muchilengedwe chinayikidwa kapena kubzalidwa pa ubale ndi zinthu zinzake, palibe chimene chinangoyikidwa ngati mmene anthu amabzalira chimanga chokha posalingalira za zinthu zina ngati mpweya, dzuwa, madzi, nthaka, tizilombo ta munthakamo ndi zina zambiri, ichi ndi chifukwa chake tiyenera kuti pamene tikuyika zinthu zathu pa malo pathu tiwonetsetse kuti china chilichonse chili pa ulumukizi wa ubale ndi chimzake
- **Chinthu chimodzi ntchito zambiri:** Zinthu zonse zimene timaziwona muchilengedwe zimagwira ntchito zambiri pothandizira zinthu zina zimene zikupezekanso malo omwewo, choncho tikamayika kapena kubzala mbewu zathu tiziganiziranso phindu lina limene tingapeze pambali pa chakudya kapena zimene zinthu zina zikhoza kupindura kwa chinthu chimenechi, mwa chitsanzo, tikabzala chimanga pambali pakuti chimatipatsa chakudya, tikhoza kuwona kuti chimathandiziranso nyemba kuti ziziyangako komanso kukhala pa ubale ndi tizilombo tina topezeka mu nthaka timene sitingapezeke ngati palibe mbewu ya m'banja la udzu monga chimanga
- **Chinthu chilichonse chimadalira chinzake:** Monga mmene ife anthu tiliri sitingakhale ndi moyo popanda dzuwa, madzi, mpweya, chakudya ndi zina zambiri, ndipo zinthu zonse tatchulazi zisingapezekenso popanda zinthu zina zolengedwa, kotero pamene tikuganizira zokhazikitsa kupena kubzala zinthu pamalo pathu tilingalire mwakuya za zinthu zimene zimapangitsa kuti chinthu tikuyikacho chichite bwino ndipo tikatero tiwonetsetse kuti tasamalira zinthu zimenezo ndi cholinga chakuti chinthu chimene tikufuna kubzalacho chidzachite bwino ndipo chisadzatiwonongere mphamvu, ndalama kapena china chilichonse
- **Dongosolo la kagawidwe ka mphamvu ndi nthito:** Iyi ndi mfundo imene imatithandizira kuyika chinthu china chilichonse pa malo oyenera kutengera ndi chisamaliro chimene chinthucho chimafuna, zinthu zonse zimene zimafuna kuzisamalira pafupipafupi ziyenera kukhala kufupi ndipo zonse zosafunikira chisamaliro pafupipafupi ziyenera kuyikidwanso patali, potero zimatithandizira kuti tizitha kuchepetsa mphamvu ndi nthawi yathu
- **Kugwiritsa ntchito zinthu za chilengedwe:** China chilichonse chimene chinachokera ku chilengedwe chikhoza kubweleranso ku chilengedwe

- Kuonetsetsa ndi kuphunzira kuchilengedwe, chilengedwe ndi m'phunzitsi wathu wabwino
- Kulingalira za kasakaniza wa zinthu monga mmene chilengedwe chimachitira
- Kulingalira za mgwizano osati mpikisano
- Kuyang'ana zinthu mwa uphumpu, osati chimodzi chimodzi
- Kugwiritsa ntchito zinthu moyenera kutengera ndi chisamaliro chimene zinthuzo zikimafuna
- Kuchepetsa ntchito ndi kulora chilengedwe kuti chitithandizire
- Kulingalira za mayankho osati mavuto okha
- Kulingalira za mtsogolo

GAWO 2

MAZIKO A CHILENGEDWE

Pachifukwa chakuti mu pemakacha timakhala ngati tikulenganso dzikoli mwa tsopano potsatira mfundo za muchilengedwe, choncho tiyenera kufukura ndi kumvetsetsa kuti kodi chilengedwe ndi chani ndipo ndi ziti zimene zimachitika mu chilengedwemo zimene zimapangitsa kuti chilengedwe chikhale chodzidalira ndi chokhazikika

Monga mmene dzikoli linalengedwera ndi dzuwa lokha limene lili chiyambi cha mphamvu zonse zimene timaziwonazi ndipo ndi zomera zobiliwira zokha zimene zili ndi kuthekera kotenga mphamvu imeneyi ndi kuyitembenuza kukhala chakudya. Nyama zonse zimene zimadalira zomelazi monga chakudya chawo zimakhala kuti zikutenga mphamvu yomwe ija ndi kuyika mmatupi mwawo mpakana kufikira nyama zimene zimadya zinzake. Pomalizira nyama zimenezi zikamatulutsa manyowa zimakhala zikupeleka mphamvu imeneyi ku tizolombo tosawoneka ndi maso topezeka mu nthaka ndipo tizilombo timeneti tikadya kenako ndi kutulutsa ndowe zake ndi zimene zomera zomwe zija zimatenga ngati chakudya chake. Umu ndi mmene mphamvu zimayendera mu chilengedwe ndipo ndi chifukwa chake palibenso kufunikira kuthira feteleza mu chilengedwe

MAZIKO ANAYI (4) A CHILENGEDWE

Chilengedwe chimakhala ngati ndi chinthu chimodzi basi chifukwa cha ulumukizi wa zinthu zonse zochitika ndi zopezekamo. Magawo a zinthu zimene zimachitika mu chilengedwe tikupeza kuti maziko ake ndi anayi ndipo mkatikati mwa maziko manewa mulinso zochitika zosiyana-siyana. Ife monga anthu tinayenera kukhala osamalitsa kwambiri chifukwa chilichonse chimene

timachita pa moyo wathu makamaka malimidwe athu nthawi zina timamanga kapena kuwononga maziko amenewa

1. Kayendedwe ka mphamvu ya chilengedwe kuchokera ku dzuwa

Maziko ena atatuwo amangotiwonetsera zochitika za muchilengedwe zimene zimachitira umboni kuti kupezeka kwa moyo umene uli mwa chinthu chilichonse cholengedwe cha pa dziko la pansu ndi chifukwa cha ulmikizi wa zinthu zonse ndipo popanda kutero moyo kunalibe

Koma maziko oyambilirawa (a kayendewe ka mphamvu mu cilengedwe) amakhudzana ndi chiyambi cha mphamvu zonse zimene zimapezeka mu zolengedwa zonsezi ndipo chiyambi chake ndi dzuwa, popanda dzuwa mphamvu zonse sizingapezeke ndipo maziko atatu enawo akhoza kukhala opanda phindu

Chimene tinayenera kudziwa ndi chakuti zina mwa mphamvu zimenezi ndi zosavu ta kuzibwezeretsa zikawonongedwa koma zina zikhoza kutitengera zaka zochulukira kuti zibwererense m'chimake

Cholinga chatu ndi chakuti pamene tikupanga dongosolo lathu tisawononge ndi kutaya mphamvu imeneyi pamene ikudutsa muzinthu zosiyanasina za chilengedwe angakhale zimene ifeyo tabzala kapene kuzikhazikitsa pamalo pathu potsatira mfundo zili munsimu

- Tiwonetsetse kuti malo athu akhale nkhekwe yokololera chinachilichonse monga kukolola madzi mu nthaka madzi ndi dzuwa komanso mphweya mu zomera ngakhale munthaka
- Kulimbikitsa kapangidwe ka zinthu zimene anthu ena amangoziwononga ndi kuzipanga kukhala zoti tikhoza kuzigwiritsanso ntchito
- Kulimbikitsa kukolola mphamvu zonse zimene timalandila kuchokera ku dzuwa pogwiritsa ntchito mbewu zimene zimaphimba nthaka
- Tilingalirensu kuti kudya zakudya zomera kumatithandizira kuwononga mphamvu zochepa kusiyana ndi kudya zakudya zochokera kunyama
- Tichepetse kutentha nkhalango ndi moto
- Tiyike chinthu chilichonse pa malo oyenera m'munda kapena pakhomo pathu kuti chizitipindulira posafunikira kutiwongera mphamvu zambiri

2 Kayendedwe ka madzi mu chilengedwe

Mfundo zotsatirazi ndi zimene zimathandizira madzi a muchilengedwe kuti asathe ndipo ndi chifukwa chake palibe ndi mmodzi yemwe amene amakathilira mu chilengedwemo

- Mukuzungulira kwa madzi mu chilengedwe kuchokera ku mvura, zomera zonse zimawonetsetsa kuti zikugwiritsa ntchito madzi amenewa mwa dongosolo lake posatayako mpang'ono pomwe
- Ndi madzi ochepa chabe amene amaloredwa kuwuluka kupita mmwamba kuchoka mu nthaka ambiri amayamba agwira kaye ntchito mu zomera asanauluke kukapanga mvula ina
- Ngakhale madzi aziyenda pa nthaka ya mu chilengedwemo simudzawona mpango'no pomwe akukokolora nthaka chifukwa chilengedwe chimakhala chombira bwino
- Pamakhala kufanana pakati pa kuchuluka kwa mpweya ndi madzi opezeka mu nthaka zimene zimathandizira mizu ya zomera pamene ikupopa madzi

3 Kayendedwe ka michere yofunikira ku zomera mu chilengedwe

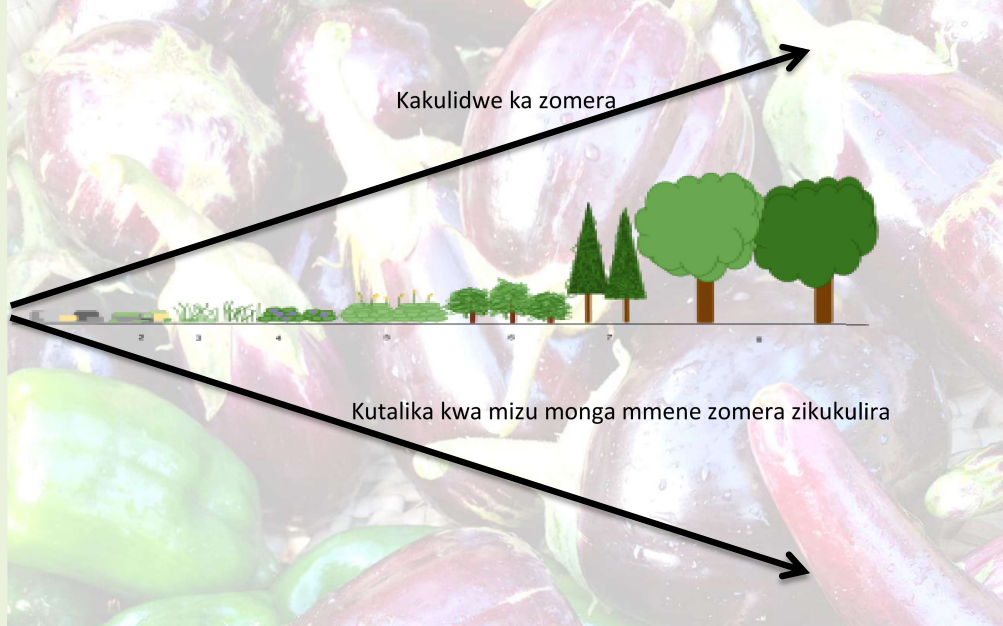
Monga mmene madzi amayendera mu chilengedwe, michelenso yofunikira ku zomera zonse imayenda mwa dongosolo lodabwitsa pamene ikugwiritsidwa ntchito ndi zinthu zonse zopezeka mu chilengedwemo (zomera ndi tizilombo)

- Kuti kuzungulira kwa michere imeneyi kukhale kokhazikika, chilengedwe chimawonetsetsa kuti nthaka yake ndi yosaguga ndipo ndi ya moyo imene imalimbikitsa kupezeke kwa tizilombo tosiyanasiyana
- Kuzungulira kwa michere imeneyi ndi kumphikika kwa zinthu zina kukhalanso nthaka sikungachitike pa nthaka ya kufa
- Chifukwa chakuti zomera ndi zimene zili ndi kuthekera kochotsa michere imeneyi kuchoka pansi pozama ndi kuyibweretse pamtunda, chotero nthaka yabwino iyenera kukhala yosanjana bwino ndi ya moyo kuti mizu ya zomerazi izitha kukafikira pansu ndi kukhazikika mu nthakamo
- Ina mwa michere imene zomera zimatenga kuchokera mu nthaka ndi mu mpweya zimayika mu nthaka kuti iphikane ndi michere imzake
- Madzi ndi tizilombo zimafukira kuti zinthu zimenezi ziwolerane
 - ❖ Chinsisi chonse chagona pakupanga nthaka yathu kuti ikhale ya thanzi ndi moyo, chifukwa nthaka yoti inakokoloka kalekale siyingatithandize mpang'ono pomwe

Ulowa mmalo ndi kudalirana kwa zinthu za mu chilengedwe

Mawu a ulowa mmalo amatithandizira kutifotokozera za mmene zinthu zimasinthira mu chilengedwe pa kupita kwa nthawi kuchoka pa malo opanda kanthu kufikira nkhalango. Kusintha kumeneku kumachitika mmagawo osiyanasiyana ndipo gawo lililonse limakhala losiyana ndi ena onse monga kakulidwe ndi kotalika kwa zomera komanso mtundu ndi kuchuluka kwa tizilombo topezekeka pamalopo

Zomera zonse zimene zimakhala ndi nthambi zogwera m'mbali zimatithandizira kutiwunikira za mmene mizu yake inayendera molingana ndi mbali imene nthambizo zikulozera, ndipo zomera zifupizifupi zimatanthuza kuti mizu yake siyinapite patali. Ichi ndi chinfukwa chake palibe kulimbilana chakudya ndi dzuwa kwa zomera zopezeka mu chilengedwe, chimodzimodzi mu ulimi okhazikikawu chifukwa ukutengera chilengedwe



Ulimi okhazikika umatengera mmene chilengedwe chimapangira polimbikitsa olowa mmalo wa zinthu zosiyana siyana kuti tichepetse mphamvu, nthawi ndi ndalama komanso zipangizo za ulimi, Mwa chitsanzo mutasiya malo osapangapo chilichonse pakutha pa za khumi kapena kupitilira apo pakhoza kukhala pali nkhalango, izi zili chimodzimodzi pamene tikulima mbewu zathu tiwonetsetse kuti sitikubzala malo onse nthawi zonse, tisiyeko malo ena kuti abwerere okha ku chilengedwe, ndipo zimene zizichitika pa amalo amenewa zikhale phunziro la mmene tingabzalire mbewu zathu nthawi zonse

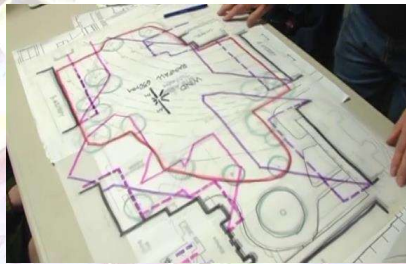
GAWO 3

MAPU

Mapu ndi ofunikira kwambiri mu ulimi okhazikika chifukwa amatithandizira kutifotokoza mmene malo athu alili nthawi imeneyo powonetsa kuthekera ndi zovuta zimene zili pamalopo. Ndipo zimenezi zimadzatithandizira pamene tikupanga dongosolo kapena kuti Dizaini, yokhazikitsa zinthu zonse zimene tikuziwona kuti zingatipindulire ndi kupinduliranso malo onse.

Mfundo zofunikira popanga mapu

Mapu aliwonse amakhala ndi cholinga chake ndipo ichi ndi chimodzi mwa zinthu zimene zimapangitsa mapu kuti akhale osiyanasiyana. Koma pali mfundo zimene tiyenera kutsata pamene tikupanga mapu aliwonse ndipo zina mwa izo ndi zimene zalembedwa mmunsimu

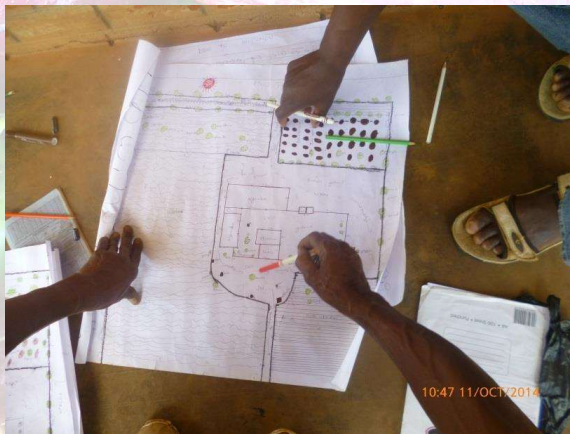


1. **Tsiku:** Tsiku limatithandizira kusunga mbiri, chifukwa pakapita zaka zambiri tikhoza kuwona mmene malo athu asinthira kuchokera pa nthawi imene tinayamba kugwira ntchito pa malowo
2. **Mbali za malo:** Mapu amafunikira kuwonetsa chilichonse pamene chilili ndi mbali imene chilili. Kotero ndi kufunikira kujambula akalozera, olozera mbali zonse zinayi (kumpoto, kummwera, kum'mawa, kumadzulo)
3. **Mulingo:** Onetsetsani kuti mwadziwa kukula kwa malo onse (mu litali ndi mu lifupi) komanso kutalikirana ndi kukura kwa zinthu zopezeka pamalopo, kenako sankhani mulingo umene mungagwiritse ntchito kuti mapu anu akwanire pa pepala. Kuti mupeze mulingo umenewu tengani nambala ya mulitali mwa malo anu ndi kugawitsa ndi nambala ya mulitali mwa pepala limene mukufuna kujambulapo mapu anu
4. **Mutu:** Dzina la mapu kapena malo amene mwajambula mapuwo, kaya ndi sukulu kapena mudzi
5. **Mwini:** Amane anajambula kapena kulemba mapuwa
6. **Zizindikiro:** Kuwonetsa ndi kufotokozera matanthauzo a zimene zikupezeka pa malopo

DONGOSOLO (Dizaini)

Mapu amatiwonetsera zoonadi za zimene zili pamalopo, osachotsera kapena kuwonjezera china chilichonse

Dongosolo limatiwonetsera zimene tikulingalira kudzapanga pamalopo mogwirizana ndi zimene mapu akuwonetsa. Ndikosatheka kujambula dongoso lanu popanada mapu



KAFUKUFUKU WA MALO

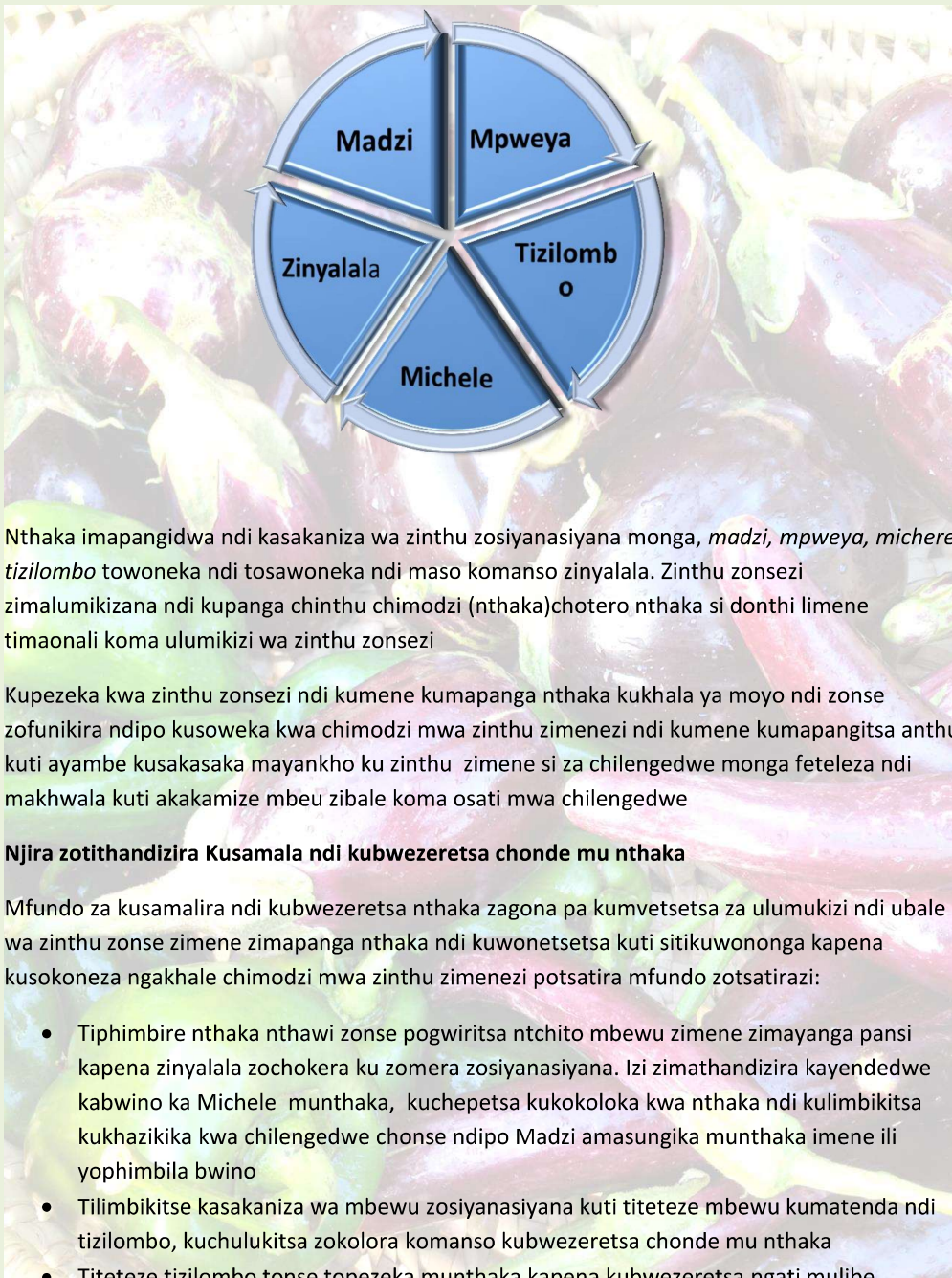
Musanayambe kujambula mapu mupange kafukufu wa zinthu zonse mosamalitsa ndi kuziwonetsa pa mapu anu pamene mukujambula, izi zimathandizira kwambiri pa dongosolo chifukwa ndi zimene zimatiwunikira kuti ndi chiti chimene chipite pati

Yenderani malo onse ndi kulemba izi:

- a. Kodi mukumva kulira kwa chiyani?
- b. Nanga mukumva mfungo lotani?
- c. Kodi mukuwona chiyani?
- d. Kodi zimene mukuwonazi ndi zosangalatsa kapena ayi?
- e. Nthaka ya pamalowa ndi yowoneka bwanji?
- f. Kodi nthaka ya pamalopa ndi yosiyanasiyana kapena ayi?
- g. Kodi malowa ndi wokwera kapena kutsika bwanji?
- h. Kodi madzi amayenda bwanji ndipo amalowera mbali ziti ndi ziti?
- i. Kodi malowa ali ndi zizindikiro za kukokoloka kwa nthaka?
- j. Wonetsani kumpoto, kummwera, kummawa ndi kumadzulo
- k. Kodi dzuwa limayenda bwanji pamalowa?
- l. Kodi mphepo imawomba kuchokera mbali ziti?
- m. Ndi malo ati amene pamakhala dzuwa kapena mthunzi nthawi zonse?
- n. Kodi nyengo ya malo amenewa ndi yotani?
- o. Kodi pali malo amene pamakhala tinyengo tosina ndi nyengo yonse? Mwa chitsanzo malo amene pamakhala mthunzi koma kwina konse kuli dzuwa
- p. Ndi zomera za mtundu wanji zimene mukuziwona?
- q. Kodi mungazigwiritse ntchito yotani zomera zimenezi?
- r. Ndi nyama za mtundu uti zimene mukuziwona pa malopa?
- s. Kodi nyama zimenezi zikupindulira bwanji anthu?
- t. Kodi malo mukuwonawa pamapangidwa chani panopa?
- u. Kodi pamalopa pali njira, mipanda kapena mageti?
- v. Kodi ndi njira zina ziti zimene mukuganiza kuti malowa akhoza kudzagwiritsidwa ntchito mtsogolomu?
- w. Kodi njira zimenezi zikhoza kudzalumikizana ndi zimene zili pa malopa?
- x. Ndi mavuto ati amene mukuwonapo?
- y. Ndipo ndi njira ziti zimene mungalingalire kudzatsatira kuti muthetse mavuto amenewa?

GAWO 4

NTHAKA



Nthaka imapangidwa ndi kasakaniza wa zinthu zosiyanasiyana monga, *madzi, mpweya, michere, tizilombo* towoneka ndi tosawoneka ndi maso komanso zinyalala. Zinthu zonsezi zimalumikizana ndi kupanga chinthu chimodzi (nthaka) chotero nthaka si donthi limene timaonali koma ulumikizi wa zinthu zonsezi

Kupezeka kwa zinthu zonsezi ndi kumene kumapanga nthaka kukhala ya moyo ndi zonse zofunikira ndipo kusoweka kwa chimodzi mwa zinthu zimenezi ndi kumene kumapangitsa anthu kuti ayambe kusakasaka mayankho ku zinthu zimene si za chilengedwe monga feteleza ndi makhwala kuti akamize mbeu zibale koma osati mwa chilengedwe

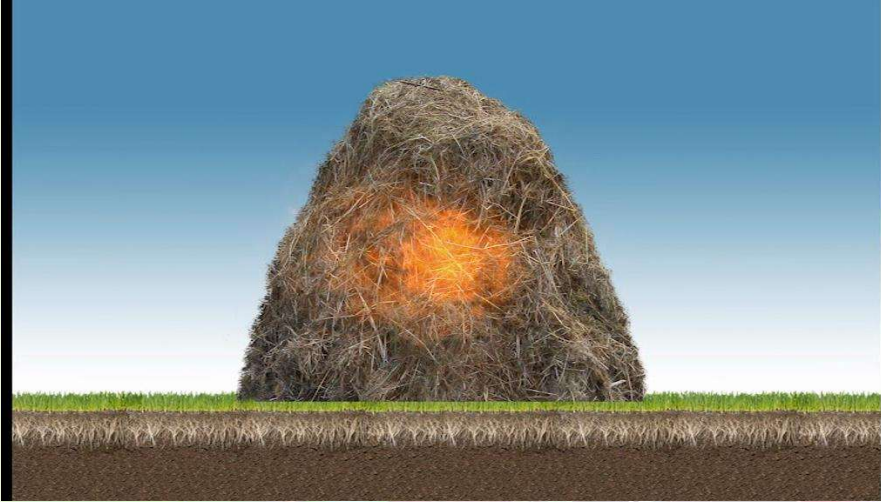
Njira zotithandizira Kusamala ndi kubwezeretsa chonde mu nthaka

Mfundo za kusamalira ndi kubwezeretsa nthaka zagona pa kumvetsetsa za ulumukizi ndi ubale wa zinthu zonse zimene zimapanga nthaka ndi kuwonetsetsa kuti sitikuwononga kapena kusokoneza ngakhale chimodzi mwa zinthu zimenezi potsatira mfundo zotsatirazi:

- Tiphimbire nthaka nthawi zonse pogwiritsa ntchito mbewu zimene zimayanga pansu kapena zinyalala zochokera ku zomera zosiyanasiyana. Izi zimathandizira kayendedwe kabwino ka Michele munthaka, kuchepetsa kukokoloka kwa nthaka ndi kulimbikitsa kukhazikika kwa chilengedwe chonse ndipo Madzi amasungika munthaka imene ili yophimbila bwino
- Tilimbikitse kasakaniza wa mbewu zosiyanasiyana kuti titeteze mbewu kumatenda ndi tizilombo, kuchulukitsa zokolora komanso kubwezeretsa chonde mu nthaka
- Titeteze tizilombo tonse topezeka munthaka kapena kubwezeretsa ngati mulibe

- Ngati mukutsegula malo olima pa malo olimba kwambiri, mukhoza kukumba kapena kugaula kwa cha chimodzi ndipo muwonetsetse kuti simukusokonezanso nthaka yanu
- Pangani njira zoyendamo pakati pa mabedi kuti muchepetse kuponda ndi kusokoneza nthaka

MANYOWA / KOMPOSITI



- Pezani malo abwino a mthunzi ndi osatsetseleka (pansi pa mtengo kapena mu shedi)
- Wunjikani zinthu zonse pamodzi
- Sankhani njira imene mukuwona kuti ndi yachidule yopangira kompositi, mu dzenje, pamtunda, mum'golo, kaya mumata kaya mumangira mpanda, zonsezi ndi njira zopangira kompositi. Koma mwa njira zonsezi wonetsetsani kuti kompositi wanuyo ali ndi zinthu zofunikira zinayi izi: Mpweya, madzi, kasakaniza wa zinthu zosiyanasiyana komanso kutentha

ZOFUNIKIRA PA MANYOWA

- Mpweya
- Madzi
- Kasakaniza wa zinthu zosiyanasiyana (zouma, ndowe, zaziwisi)
- Kutentha / ufundizi

KAPANGIDWE KA MANYOWA

Kompositi akhale wokula bwanji

Kompositi akachepa kwambiri amavuta kuti atenthe ndipo akakula kwambiri amavuta kutembenuza, choncho yezeni 1m m'bali ndi 1m kufika pamwamba (yadi imodzi m'bali ndi yadi imodzi kufika pamwamba)

Ngati mukupanga kompositi wambiri wa malo aakulu, yezeni 1m (yadi imodzi) mulifupi ndi 1m (yadi imodzi) kufika pamwamba ndipo mukhoza kutalikitsa mu litali m'mene mungafunire

1. Poyamba ikani timitengo ting'onoting'ono kapena china chilichonse chimene chikhoza kumasiya timipata kuti mpweya uzitha kuzungulira pa kompositi wanu
2. Kenako ikani zinthu zouma pamwamba pake (zinthu monga zinyalala zosiyanasiyana ndi china chilichonse chowuma) izi zimagwira ntchito ngati msima, ndipo zimenezi zikhale zochulukirapo (magawo atatu kapena anayi) ngati mukugwiritsa ntchito wilibala ndiye kuti atatu kapena anayi
3. Thirani madzi okwanira ma keni awirri kapena atatu ndipo muwonetsetse kuti sakuyendelera pansu ndikumathawa pa kompositi
4. Pamwamba pa zouma yikani ndowe (gawo limodzi) ngati mukugwiritsa ntchito wilibala ndiye kuti imodzi basi. Manyowa amagwira ntchito ngati ndiwo ndiye safunikira ambiri chifukwa amakhala ndi mchele wokulitsa (nitrogen) ndiye akachuluka amayamba kuuluka kenako kompositi wanu ndi kumanunkha kwambiri ndipo amayamba kutsika, kompositi asamatsike, ngati munayamba ndi mulu waukulu adzawoneke chimodzimidzinsu akadzapsa. Kachiwiri ndowe zimagwira ntchito ngati moto chotero zikachuluka zimatentha kwambiri ndipo zimapha tizilombo tofunikira timene timakhala tikugwira ntchito pa kompositi
5. Thirani madzi pamwamba pa manyowa
6. Kenako ikani zowuma
7. Ngati muli ndi zaziwisi mukhoza kuyikapo
8. Pitirizani kumangobwereza mpaka 1m ndipo pamwamba mumalize ndi manyowa kuti azisunga kutentha
 - ❖ Chonde dziwani kuti si manyowa onse amene akhoza kukhala abwino kuthira ku mbewu zonse. Kompositi amene mwayikapo ndowe zambiri ndi wabwino ku ndiwo za masamba osati mitengo, koma kompositi amene panali zouma zambiri monga utuchi komanso nthambi za mitengo ndi wabwino kuthira ku mitengo

KUTEMBENUZA MANYOWA

Tembenezani manyowa pokhapokha ngati mwawona kuti pa mulu wanu patentha kwambiri kuwopetsa kuti tizilombo tingafe, koma ngati munachedwe ndiye tembenezani pamene mwawona kuti kutentha kwayamba kutsika. Nthawi zambiri mulu umakhala utatentha kwambiri pakangotha masiku anayi choncho tembenezani koyamba tsiku limeneli.

Tembenezani kompositi pakangodutsa tsiku limodzi kuchokera pamene mwatembenuza

koyamba patadutsa masiku anayi, pitirizani kutembenuza pakangodutsa tsiku limodzi mpaka kufikira masiku khumi ndi asanu ndi atatu (masiku 18) pamenepa amakhala kuti wapsa. Komabe kutengera ndi zinthu zimene munayika, nthawi ya pa chaka imene mukupanga kompositi wanu ndi zina zambiri zimapangitsa kuti nthawi zina kompositi akhale masiku opitilira 18 nthawi zina mpaka mwezi ngakhale miyezi kumene, izi sizolakwikwa

MUNGADZIWE BWANJI KUTI KOMPOSITI WATENTHA NDIPO PAKUFUNIKA KUTEMBENUZA?

1	2	3	4 Tembenuzani	5	6 Tembenuzani	7	8 Tembenuzani	9
10 Tembenuzani	11	12 Tembenuzani	13	14 Tembenuzani	15	16 Tembenuzani	17	18 Kompositi wapsa! !
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45

Ngati mulibe zipangizo zoyezera, gwiritsani tchito dzanja lanu. Pakangopita masiku awiri kapena atatu pisisani dzanja mkati mwa kompositi wanu ndipo ngati pakutentha kwambiri koti simungakwanitse kukhazika dzanja lanu nthawi yaitali ndiye kuti pakufunika kutembenuza kompositiyo

Anthu ena amathira phulusa, makala, gaga, feteleza, yisiti, shuga, dothi la ku nkhalango, zawisi ndi zina zambiri, kodi izi ndizofunikira kapena ayi?

1. Zaziwisi, yisiti ndi dothi la ku nkhalango zimathandiziranso kubweretsa tizilombo tofukira kugwira ntchito pa kompositi, kotere kuyikapo sikulakwitsa koma zisachuluke, Dothi lodzadza dzanja limodzi ndi lokwanira kompositi yense. Choncho mukhoza kuyika koma pokhapokha ngati mukufuna. Zaziwisi zimagwiranso ntchito ngati moto choncho ngati mwayika zambiri zili chimodzi modzi kuyika ndowe zambiri
2. Makala ndi phulusa zimathandizira maumbidwe a nthaka ndi kubwezeretsa Michele ina koma palibe vuto ngakhale osagwiritsa ntchito, ngati muli nazo thilani lochepa basi

MANYOWA A MADZI

Feteleza ameneyi ndi wofunikira kwambiri chifukwa amagwira ntchito nthawi imene mwathirayo, pamene mukathira kompositi weni weni amafunikira kuti asungunuke kukhala ngati madzi

- Tengani kompositi amene wapsa, ndowe za nyama iliyonse, kapena masamba a mitengo imene imadyetsa nthaka thirani chimodzi mwa zinthu zimenezi mu chinthu chilichonse koma koma chisakhale chachitsulo kapena lata
- Zinthu zimene mwayikazi zikhale theka ndipo mudzadzitse theka lotsalalo ndi madzi
- Vundulani tsiku lililonse mpaka madzi onse asanduke mtundu wa zinthu zimene mwayikazi
- Zikatero tengani ndipo sungunulani kapu imodzi ya manyowa anu ndi makapu awiri amadzi kenako thirani ku mbewu zanu
- Zinthu zonse ngati manyowa siziyenera kukhala mmadzi nthawi yayitali, tsiku limodzi kapena awiri basi, koma zinthu monga masamba amitengo akhoza kukhala mpaka ma sabata atatu chifukwa amatenga nthawi yayitali kuti aphwanyike



NYONGOLOTSI / NYAMBO

Nyongolotsi zimatithandizira kwambiri kupanga manyowa Pamene zikudya zinthu zambiri monga ndowe za ziweto, zakudya zotsala kukhitchini ndi chilichonse chobiliwira

- Tengani chitini chilichonse ndipo muchiboole kaboo kochepe pansipake
- Kenako muthilemo mchenga



pango'ono, izi zimathandizira kuti madzi asamakhazikike pansi

- Kenako ikani manyuzi kapena mapepala aliwonse a mkope, zimenezi zimagwira ntchito ngati malo ogona anyongolotsi
- Pamwamba pa mapepala ikani manyowa ochepa ngati chakudya choyambira cha nyongolotsi
- Pezani timiyala ndikuyikapo chitinichanu kenako ikani nyongotsi ndi kuvindikira pamwamba pake chifukwa nyongolotsi zimadana ndi dzuwa kapena kuwala
- Nyongolotsi zimafunanso mpweya choncho onetsetsani kuti chitini chanu chili ndi mabowo
- Pitolizani kudyetsera mpaka chitini chanu chitadzadza koma musadyetsere zakudya zambiri thawi imodzi

GAWO 5

KUSAMALIRA, KUTETEZA NDI KUKOLORA MADZI



Izi ndi zina mwa mfundo zimene zimathandizira pamene tikufuna kukolora madzi

- **Malo okwera:** Pamene mukufuna kukolora madzi yambirani malo okwera nthawi zonse
- **Tisawononge:** Onetsetsani kuti chilichonse chimene mukupanga chisawononge madzi
- **Kuyimitsa:** Yimitsani kapena kuchepetsa kuthamanga kwa madzi kuti asakolore nthaka
- **Kumwaza:** Mukawayimitsa onestetsani kuti madzi akwanira paliponse
- **Kulowetsa mu nthaka:** Aloleni madzi onse kuti alowe munthaka

- **Kuphimbira:** Phimbirani nthaka yanu kuti madzi asawuluke kupita mmwamba
- **Mvura yochepa:** Pangani dongoslo limene lingakuthandizeni ngakhale mvura itavuta
- **Mvura yambiri:** Pangani dongoslo limene lingakuthandizeni ngakhale madzi atasefukira

Malamulo a mmene tingathilire mbewu zathu

- Thilirani bedi limene mwaphimbira izi zimachepetsa mavuto a kuchuluka kwa mchere mu nthaka
- Thilirani madzulo kapena usiku ndipo londelani kuti madzi asachuluke
- Thilani madzi ambiri masiku ochepa osati pang'ono tsiku lililonse
- Pamene mukuthilira gwiritsani tchito ma payipi osabooka
- Musathire madzi ambiri zedi pa bedi izi zimasungunura michere yofunikira

Kupanga akalozera pa malo anu kapena mmunda pofuna kukolola madzi

Akalozera amatithandizira pamene tikulima pa malo otsetseleka, ndipo kuti tipange akalozera timagwiritsa ntchito chipangizo chotchewa A felemu.

Ubwino ogwiritsa ntchito A felemu ndi wakuti ndi chosavuta kupanga komanso chotchipa, koma kuyipa kwake ndi kwakuti ndi kovuta kugwiritsa ntchito pa malo aakulu



Kapangidwe ka A- felemu

- A -felemu imafunika mitengo itatu, chingwe, misomali ndi mwala
- Tengani mitengo itatu ndi kugoneka ndikupanga chinthu chowoneka ngati A wamkulu
- Gwiritsani ntchito chingwe kapena misomali kumanga mulumikizila mitengoyi
- Kenako imililitsani ndi kumanga chingwe chachitali pa kona ya pamwamba kutsika kudutsa mtengo umene wayenda mopigasa
- Mmuni mwa mtengo wopingasa mangani mwala kuchingwe chachitalicho
- Gwirani A felemu yanu bwino bwino ndipo lembani kanzere pamene padutsa chingwe chimene mwamangako mwalacho



- Tembuzani A felemu yanu poyika mtengo wina pamene panali unzake ndi winawonso pamene panali unzakewo
- Lembani mzere wina pamene padutsa chingwe chachitali chimene mwamangirako mwala
- Pomaliza pezani pakati pa mizere iwiri imene mwalemba ija, pamenepo ndiye pakati pa A felemu yanu



Kagwiritsidwe ntchito ka A felemu

- Sankhani malo otsetseleka ndipo imikani A felemu yanu, onetsetsani kuti chingwe chimene mwamangako mwala chagunda mzere umene mwalemba kuti ndi pakati pa A felemu yanu, zimenezi zikutanthauza kuti malo awiriwa ndi ofanana kukwera kapena kutsika kwake
- Khomani chikhomo pamene pali mwendo umodzi wa kumbuyo kwa A felemu yanu ndipo sunthani mwendo umenewu ndi kuyika patsogolo, mukawonso kuti chingwe chimene mwamangako mwala chija chagunda pamene mwalemba mzere owonetsa pakati pa A felemu yanu khomani chikhomo china kenako ndi kusuntha mwendo wa mmbuyo wa A felemu yanu
- Pitolizani kufikira kumapeto kwa munda wanu, ndipo mzere umenewu ndi umene umatchedwa kuti kalozera chifukwa umatiwonetsera malo ofanana

Kupanga swelo

Swelo ndi ngalande imene timakumba kuti tikolore madzi pa malo aakulu ndipo ndi njira imodzi yothandiza kwambiri.

- Choyambilira tengani A felemu yanu ndipo mupange akalozera
- Kenako yambani kukumba swelo yanu mmene mwadutsa kalozera wanu, pamene mukukumba timitengo timene munazika ngati kalozera tizikhala pakati pa swelo mukukumbayo
- Dothi limene likuchoka mu swelo yanu muliwunjike mbali imene ili yotsika ndipo mupange ngati mgula
- Kenako bzalani mitengo pa mgula wanu ndi mbewu zimene zimakhala ndi mizu yolimba kuti zimange swelo yanu mwa chitsanzo, udzu wa vetiva kapena wa mandimu kapena deliya



- Ngati malo anu ndi otsetseleka kwambiri, ndikovuta kukumba swelo chotero tengani miyala kapena matumba mutathiramo mchenga ndi kutchinga madziwo, pakapita nthawi swelo idzapangika yokha

Madzenje okololera madzi / mabeseni



Mabeseni kapena kuti madzenje amathandiza pamene tikufuna kukolola madzi kenako ndi kubzalapo zinthu zimene zimachita bwino ndi madzi ambiri monga nthochi, udzu wa mandimu, koko yamu, zimbe ndi zina zambiri, malo amenewa akhoza kukhala pafupi ndi nyumba kapena zomanga manga zilizonse kuti tikolore madzi onse ochokera padenga, ku bafa komanso malo onse amene pali mpopi, Dilawo ngakale chitsime



Mdzi otsukila mbale, kukolopela kapena pamene timachapira kapena kuyanika zovala

Madzi onse amene tagwiritsa ntchito akhoza kutithandiziranso kuthilira mbewu zathu, choncho bzalani mbewu zimene zimachita bwino ndi madzi ambiri malo amenewa

GAWO 6

NJIRA ZA CHILENGEDWE ZOTETEZERA MBEWU KU MATENDA NDI TIZILOMBO

Chinsisi cha kuteteza mbeu ku matenda ndi tizilombo towononga mbewu chagona pa kubwezeretsanso ndondomeko za chilengedwe mmene chilengedwe chimagwilira ntchito yake.

Njira zobwezeretsera ndondomeko ya chilengedwe

- Njira yoyamba ndi kubwezeretsa chonde mu thaka komanso kuwonetsetsa kuti sitikusokoneza nthaka yathu pogwiritsa ntchito njira za makolo za malimidwe monga kukumba pang'ono, kuthira manyowa ndi kuphimbira nthaka nthawi zonse, izi zimatipatsa mbewu za thanzi labwino zimene zimalimbana zokha ndi matenda komanso tizilombo
- Njira yachiwiri ndi kuteteza kapena kukoza malo amene tizilombo tofunika monga a chule, mileme, mbalame ndi zina zambiri zikhoza kumakhalamo kuti ziziteteza malo athu
- Njira ya chitatu ndi kuwonetsetsa kuti tikubzala mbewu mwa kasakaniza kuti zizitetezana
- Gwiritsani tchito njira za makolo nthawi zonse ngati muli ndi vuto la tizilombo kapena matenda, Zomera zonse zimene zimakhala ndi fungo la mphamvu monga, anyezi, adyo, maluwa anunkha dala ndi zina zambiri zimathandizira kuteteza mbewu kutizilombo ndi matenda



Zina mwa mbewu zimene zimathandizira kuteteza zinzake ku tizilombo ndi matenda

Nunkhadala	Mpungabwi	Nesiteshamu
Tsabola	Mitengo ya soya	Alovera
Mthuthu	Masamba a tiyi	
Chanzi	Adyo	
Udzu wa mandimu	Tomato	
Papaya	Zumba	
Fodya	Chisoso	
Sopo	Msatsi	

GAWO 7

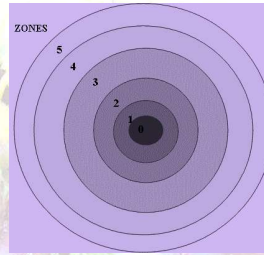
ZIGAWO / MA ZONI A MU PEMAKACHA

Mazoni amathandizira kuyika kapena kubzala mbewu malo oyenera kutengera chisamaliro chimene chinthucho kapena mbewuzo zimafuna ndi cholinga chakuti zitichepetsere ntchito

- **Gawo 0:** Zinthu zonse ngati nyumba, bafa, khitchini, chimbudzi, chitsime, Dilawo, Mpopi, Mpanda, malo otsukira mbale ndi ena ambiri, malo amenewa pamakhala zinthu

zambiri zimene zimatengedwa ngati zopanda Ntchito mwa chitsanzo madzi okolopera, choncho malo amenewa ndi pamene timalingalira za mmene tingagwiritsilenso ntchito zinthu zimenezi kuti zisawononge malo athu

- **Gawo 1:** Malo onse a kufupi ndi zinthu zimene zili mu gawo 0, awa ndi malo amene timayika zinthu zonse zimene zimafunikira chisamaliro pafupi pafupi monga ndiwo za masamba, ziweto zing'ono zing'ono zimene timadyetsera tsiku lililonse ndi zina zambiri, ndi cholinga chakuti tikhoza kugwiritsa ntchito madzi okolopera, otsukira mbale, ochapila ngakhale madzi amene amangokhala pa mbali pa mipopi kuseri kwa bafa kapena zitsime zathu.



- **Gawo 2:** Khalango ya zakudya, nkhu, makhwala, ndi ziweto zimene sizifunikira chisamaliro tsiku tsiku, mwa chitsanzo mukabzala mtengo wa zipatso ntchito imathera pomwepo koma kukolora zaka zambiri. Mu nkhalango zimezi tmaonetsetsa kuti tikuyika chakudya chatu kapena mitengo ya zipatso ngati chinthu choyambilira kenako, nkhu, mankhwala, milimo ndi zina zimene tikuzifuna, koma cholinga cheni cheni ndi kuchepetsa nchito kutero kuti ngati muli ndi ziweto zimene simuzidyetsera tsiku lilironse ndiye kuti ziyikidwa mu zoni 2 / gawo 2



- **Gawo 3:** Mbewu zonse za pa chaka zodalira mvura monga, chimanga, chinangwa, mbatata, mapila, kachewere, mchewere, mtedza, nandolo ndi zina zambiri. Pamene tikubzala mbeu zimenezi tikuyenera kusankha mbeu imodzi imene ikhale mbeu imene tikufuna kudzakolora yochuluka kenako mbeu zinazo zimangokhala zothandizira. Chotero mbeu yathu yeni yeni ibzalidwe m'wali mwa bedi ma layini awiri pamene pakati pake ndi pamene tibzalepo mbeu zothandizirazo. Mwa chitsanzo ngati mukubzala chimanga ndiye kuti chimangacho chikhale ma layini awiri pa bedi, ndipo pakati pake ndi pamene pakhoza kubzalidwa mbeu zothandizira ngati nandolo, katupe, m'pendadzuwa, zumba kapena soya. Gwiritsani ntchito mabedi osati mizere chifukwa mukamapanga mizere mumalima theka la munda wanu theka linalo limakhala lomangoyendamo, pamene mukaphatikiza mizere iwiri ndi khwawa limodzi zimathandizira kuti mukhale ndi malo ambiri olimapo mbewu ndi malo makwawa ochepa oyendamo



- **Gawo 4:** Nkhalango zimene mumakhala nkhuhi, mitengo ya matabwa, makhwala ndi zina zambiri, mu nkhalango imeneyi ndi mmene mukhoza ku kukhazikitsamo malo odyetsera ndi kusungiramo ziweto zikulu-zikulu ngati ngo'ombe, ma hatchi, a bulu, Komanso ngati muli ndi mbzi ndi nkhosa zambiri zimene zikufunikira malo aakulu odyetserako. Mu gawo 4 ndi malo abwinonso kuweteramo njuchi, choncho ngati muli ndi ndi ming'oma ya njuchi ndi bwino kuyipachika mu gawo limeneli kapena mu gawo 2.





- **Gawo 5:** Malo wa amakhala a chilengedwe ndipo palibe ntchito imene tikhozakupangako



CHIMVANO / CHIGWIRAZANO CHA ZINTHU MU ULIMI OKHAZIKIKA

Pamene tayika zinthu mu zigawo kuti tichepetse ntchito ndi mphamvu pafunikanso kuganizira za mmene zinthu zingagwilire ntchito limodzi, ndipo chimvano chimathandizira kutizindikilitsa za mmene tingayikire zinthu kuti zigwire ntchito limodzi ngati chinthu chimodzi ndi cholinga chimodzi ndi kupindulira chilengdwe chonse. Pa dziko lonse la pansi pali magawo asanu ndi awiri okha a chimvano cha zinthu

1. **Chakudya chathu:** Chakudya chikhale chinthu choyambilira nthawi zonse, tiwonetsetse kuti tabzala chakudya cha magulu onse 6 kuti tikhale ndi thanzi labwino
2. **Chakudya cha nthaka:** Kuti tikolore zochulukira tiganizire zoteteza ndi kusamalira nthaka yathu kuti isaguge, pothira manyowa, kuphimbira kapena kubzala mbewu zimene zimadyetsa nthaka mwa chitsanzo zonse za mgulu la nyemba
3. **Zoyanga:** Zinthu zonse zoyanga zimathandizira kugwiritsa ntchito malo ochepa kuti pakhale zinthu zambiri, mwa chitsanzo, nyemba, kamumpanda, magalagadeya, chilazi, chinkhowe
4. **Zoyangidwa:** Zinthu zimene zimayanga zimafunikira zinthu zimene zikhoza kuyangako kuti zisawole komanso zilandire dzuwa, zinthu zoyangidwazi ndi monga, mitengo, mipanda, nyumba ndi zina zambiri
5. **Zokumba:** Zinthu zimene zimayika mizu mu nthaka zimathandizira kufewetsa nthakayo kuti mpweya ndi madzi zilowe bwino, mwa chitsanzo, mbatata, chinangwa, yamu, mitengo yonse komanso nyama zimene zimakhala munthaka monga, mbewa, njoka, chiswe, nyerere ndi zina zambiri
6. **Zophimba nthaka:** Mbewu zonse zimene zimayanga pansi komanso zinyala zimene zimagwa pa nthaka zimathandizira kuteteza nthaka kuti isawombedwe ndi dzuwa komanso kuluza madzi
7. **Zoteteza:** Mbewu zonse zimene zili ndi fungo la mphamvu zimathandizira kuteteza zinzake kumatenda ndi tizilombo

Zinthu zonsezi ndi zimene zimapanga chimvano ndipo ndi bwino kuti mu gawo / zoni iliyonse mukhale chimvano chimenechi kuti mbeu ndi ziweto zizithandizana mwa zokha.

Gawo 8

KAFESDWE KA MITENGO

Kupanga nazale ya mitengo

Nazare ya mitengo imafunika ikhale pa malo a thyathyathya, kufupi ndi madzi, potetezedwa ndi ziweto ndi malo a mthunzi koma osati wambiri. Ngati mwapeza malo otsetseleka pangani ma sitepi kuti madzi asakolore nazare yanu.

Zipangizo zofunikira popanga nazare

Khasu, chikwanje/pwitika, ma chubu, dothi, kompositi, Ma keni othilirira, mchenga, mbewu chingwe, udzu ndi mitengo zomangira mpanda.

Nthawi yoyambira kupanga nazare

Mwezi wa Ogasiti

- Kusankha malo ndi kupanga kafukufuku wa malo chimodzimodzi monga mmene mumapangira pamenne kufuna kujambula mapu anu kuti mukhale ndi chithunzi thunzi cha zochitika zonse za pa malo anuwo. Izi zimathandizira kwambiri kuti mudziwe mtundu wa ma bedi amene mungagwiritse ntchito ndi zina zambiri
- Kupanga kompositi amene mudzagwiritse ntchito pofesera mbeu zanu
- Tolerani njere zonse kufikira mulingo umene mukufuna kufesawo koma zokhazo zopezeka mu nyengo imeneyo komanso zopezeka ku dera la kwanuko
- Pezani ndi kuunjika pamodzi, mchenga, dothi komanso ma chubu
- Mangani mpanda wanu mmene mudzafeseremo mitengo yanu

Mwezi wa Sepitembala

- Thirani dothi mmachubu
- Konzani njere zanu monga mmene zimafunikira, zoyenera kuthena, kuvivika kapena kutenthetsa
- Fesani njere zanu mmachubu
- Patulirani mbande zanu ndi kuziyika mmachubu ena
- Thenerani mizu ya mbande zanu ngati zikulowa mu dothi la pansu kuchoka mu chubu
- Tolerani njere zonse kufikira mulingo umene mukufuna kufesawo koma zokhazo zopezeka mu nyengo imeneyo komanso zopezeka ku dera la kwanuko

Mwezi wa Okutobala mpaka mwezi wa Disembala

- Pitolizani kuthilira, kupatulira komanso kuthenera mizu mpakana mvula yoyambilira itagwa, apa ndipa mene mukhoza kukabzala mitengo yanu. Chonde dziwani kuti mitengo yonse ikuyenera kubzalidwa ndi mvula yoyambilira, chotero mukumbiletu mayenje mweze umodzi mvula isanabwere
- Tolerani njere zonse kufikira mulingo umene mukufuna kufesawo koma zokhazo zopezeka mu nyengo imeneyo komanso zopezeka ku dera la kwanuko

Pitilizani kutolera ndi kufesa njere za mitengo chaka chonse kutengera ndi njere zimene zikupezeka mu nthawi imeneyo chifukwa njere zimapezeka mu nyengo zosiyana siyana ndipo zina zimavuta kusunga.

Kukonza dothi lothira mma chubu

Phatikizani magawo awiri adothi la ku nkhalango kapena pansi pamtengo, gawo limodzi la manyowa ndi gawo limodzi la mchenga 2:1:1. Fewetsani dothi limeneli ndi madzi pang'ono kuti lisamavute kuthira m'machubu.

Zitsanzo za ma chubu

- Ma pepala a shuga
- Chibuku
- Za nthochi
- Ma pepala a mchere

Kufesa mitengo

Pofesa mitengo yambirani pa bedi limodzi kapena chubu chimodzi, izi zimathandizira kuti pamene mukudzayika mbewu zanu mmachubu mudzayike zokhazo zimene zili za thanzi komanso ngati pali mbewu zimene njere zake zimatulutsa mitengo yoposera iwiri monga mango, mapeyala, masuku ndiye kuti zidzakuthandizirani podzapatulira musanayike mu chubu.

KABZALIDWE KA NTHOCHI

- Pamene mukufuna kubzala nthochi pezani malo amene pali madzi ndi dzuwa lokwanira chifukwa nthochi imachita bwino ndi madzi ambirikomanso dzuwa lambiri, malo monga kudambo, kuseri kwa bafa, pa dilawo, pa mpopi, pa chitsime ngakhale malo amene pamakhazikika madzi ochokera pa denga.
- Kumbani dzenje lotalika yadi imodzi kupita pansi ndi m'mbali (1m)
- Tengani mbewu yanu ya nthochi imene mwakumba ndipo chotsani mizu yose chifukwa imakhnala kuti yafa, siyani tiziphukira kapena kuti timaso tokha kumizuko basi
- Kankhani zinyalala ndi kupanga ka dzenje pakati pake kuti mubzalepo nthochi yanu
- Bzalani nthochi yanu pakati pa zinyalalazi koma musakwilire ndi dothi, chifukwa dothili limatseka mipata yonse ndipo pamene nthochi ikutulutsa ana amadzatuluka pa mtunda popanda nthaka ndi chakudya



- Tengani zinyalala zosiyanasiyana zouma ngakhale kuphatikiza ndi zaziwisi ndi kuyika mdzenje mwakumbalo kufikira litadzadza mpaka pamwamba koma nthochi isakwilirike yonse, kuopetsa kuti ingafe

KAFESDWE KA GWAFWA

- Tengani gwafa wakupsa kwambiri ndipo wopanda matenda
- Chotsani njere zake ndi kuziviyika m'madzi kwa masiku anayi (4)
- Tsiku lina lililonse muzisintha madzi ngati mukuona kuti ndi akuda
- Tsiku lachinayi ndipo nthawi yofanana ndi imene munaviyikira mmadzi, chotsani njere mmadzi ndipo ikani pa kansalu ndikuyamba kupekesa kuchotsa ka khungu kotelera kamene kamakhala kunjwa kwa njere za gwafa. Pangani zimenezi mpaka njere zanu ziwoneke zoyera ndipo mukamazigwira zisamatelere
- Pangani bedi lofesapo njere zanu, potipulapo ndi khasu kuti pafewe
- Thirani kompositi amene mwasakaniza ndi mchenga pang'ono chabe kuti madzi asamadzakhazikike kuwopetsa kuti njere zanu zingawore
- Mukatero muzithilira tsiku lililonse mpaka zitamera, koma ngati mukuwona kuti pali chinyezi mukhoza kumadumphitsa masiku ena osathilira
- Gwafa wanu akamera zulani ndi kuyika mmachubu mpaka atakula kufikira nthawi yobzala
- Njira imeneyi ndi yodalilika kwambiri ngati mukufuna gwafa wanu kuti adzayambe kubala mofulumira (*pakangotha cha kapena zaka ziwiri*)

PAPAYA

- Kutu mupeze njere za ma papaya aakazi okhaokha, pitani pa mtengo wa papaya ndipo mukapeze papaya oyambilira kubala, papaya ameneyi ndi amene amakhala ndi njere za ma papaya aakazi okhaokha
- Koma ngati simungakwanitse kupeza papaya oyambilira kubala, tengani njere za papaya aliyense ndi kuviyika mmadzi, zikayandama pamwamba ndiye kuti ndi zazimuna koma zikakhala pansu ndiye kuti zidzakupatsani papaya wamkazi. Njira iina yodziwira papaya ngati ndi waukazi kapena waumuna ndi yodikira akamera, mapapaya amene amakhala ndi tsinde lonenepa ndi aakazi ndipo amene amakhala ndi tsinde lowonda ndi aamuna



- Pamane tikufuna kufesa papaya timutchole kaye ndi kumusiya kuti apse kwambiri ngati kuyamba kuwola
- Kumbani kabedi kotalika phanzi limodzi kupita pansi ndipo thilani kompositi, dothi la kunkhalango ndi mchenga pang'ono
- Dothi la kunkhalango limabweretsa tizilombo tofunikira mu nthaka, kompositi amapeleka chakudya ndipo mchenga umathandizira kuti madzi asamakhazikike kuwopetsa njere kuti zingawole
- Njere zikatuluka ndi kukula pang'ono zulani ndi kukawokera mmachubu ndipo zikakula pang'ono kufikira pafupifupi phazi limodzi tembenuzani onse aamuna kuti akhale aakazi, potenga kamtengo ndi kosongola kenako ndi kubaya patsinde pa papaya wanu (pamene palekeza dothi) ndipo mukathole kuti kakhale mkati

MANDIMU

- Ngati mukufuna kubzala mandimu, manyumwa, malalanje ndi manatsi, fesani njere za mandimu basi ndi kudzachita kukwatitsa ndi nthambi ya chimodzi mwa zipatso zimene mukufunazo koma za banja la gulu la mitengo yomwe tatchulayi. Izi zili choncho chifukwa mizu ya mandimu imapilira ku chiswe ndi mavuto ena ambiri ndipo ndi yolimba
- Tengani zipatso za mandimu anu okhwima ndi opanda matenda
- Viyikani njere mmadzi kwa tsiku limodzi ndipo tsukani njere mpaka kakhungu kotelera kachoke mukatero mukhoza kufesa
- Pamene mukufuna kufesa kumbani bedi kutalika kwake phanzi limodzi kupita pansi ndi yadi imodzi mu lifupi ndipo sakanizani kompositi wokwanira 2 kg pa yadi imodzi
- Panangani timakhwawa ting'ono-ting'ono ndi kuthiramo ka mchenga kochepe ngati kalipo, izi zimathandizira kuti madzi asamakhazikike kuwopetsa kuti njere zingawore
- Kenako fesani jere mu timakhwawa timeneti
- Njere zikamera dikirani kuti zikule pang'ono kufikira pamene Zili ndi masamba atatu kapena anayi, kenako zulani ndi kukawokera m'machubu



MANGO

- Njere imodzi ya mango imatulutsa mitengo yoposera ngakhale isanu, choncho ndi bwino kuyambira kufesa pa bedi kenako ndi kudzapatulira ndi kuyika mmachubu

- Pezani njere za mango amene ali okhwima bwino ndipo ochokera ku mitengo yopanda matenda, komanso ngati mukufuna kudzakwatitsa mitengo yanu, ndi bwino kufesa njere za mitengo ya mango a kalisele basi. Mitengo imeneyi imakhala ndi mizu yolimba
- Tengani njere zanu ndipo muzisende chakunja chake, izi zimathandizira kuti njere zidzamere mofulumira
- Pangani bedi lotalika phanzi limodzi kupita pansi ndi mita imodzi mu lifupi
- Thirani mchenga okha pa bedi limeneli ndipo fesani njere zanu
- Zikatuluka dikirani pamene zili ndi masamba atatu kapena anayi ndipo patulirani ndi kuyika m'machubu

GAWO 9

LUSO LA UPHUNZITSI

Aliyense akhoza kuphunzitsa koma tinayenera kudziwa kuti Kuphunzitsa ndi luso lobadwa nalo ndipo palibe mmndandanda wa dongosolo la mmene munthu akhoza kuphunzilira kuphunzitsa ngakhale pali njira zina zambiri zimene zimathandizira munthu kupititsa patsogolo luso limeneli. Pali anthu ambiri amene anabadwa kale ndi mzeru koma alibe luso la kuphunzitsa ndipo pali anthu ambiri amene amangosowekera nzeru yoyenera koma anabadwa kale ndi luso la kuphunzitsa. Kuphunzitsa kweni kweni kumatanthauza kuti iweyo monga mphunzitsi ndi ophunzira nonse mukuphunzira limodzi chifukwa palibe amene anabadwa odziwa zonse ndipo palibe amene anabadwa koma sadziwa kalikonse, aliyense ali ndi mbali yake.

Kukhala kadaulo mu kuphunzitsa pemakacha

Maphunziro onse amene amaphunzitsidwa mu pemakacha akuyenera kuphunzitsidwa pogwiritsa ntchito Dizaini kapena kuti dongosolo, zilibe kanthu kaya mukuphunzitsa za nthaka kapena zamadzi kapena za madyedwe oyenera koma ngati palibe Dizaini kapena dongosolo limene likuthandizira kulumikizitsa zinthu zonse ndi kumagwira ntchito ngati chinthu chimodzi dziwani kuti chinthu chimenecho kapena chitukuko chimenecho sichingatheke, chifukwa pa dziko la pansi palibe chinthu chimene chimagwira ntchito pachokha koma chilichonse chimadalira chinzake. Zotsatila zake mmalo mokonza vuto mukhoza kukhala aphunzitsi ophunzitsa njira zabwino zolimbikitsira mavuto a dziko la pansi chifukwa ndinu kadaulo wa chinthu chimodzi chokha koma chosalumikizana ndi chinzake.

Musanapange ndondomeko ya mmene mukuganizira kuti mukaphunzitsire lingalirani kaye za zimene mukuona kuti ophunzira angakakwanitse kupanga paokha pa mapeto a maphunziro anu, chifukwa inuyo muzikaphunzitsa zimene mukuzidziwa kale koma anthu amene mukukawaphunzitsawo zikhoza kukhala koyamba kumvako mawu akuti Pemakacha. Chinthu

chachiwiri ganizirani za mawu onse amene mukagwiritse ntchito komanso zifanifani ndi zipangizo ngakhale zithunzi ndipo mudzifunse funso la chiwiri ngati ophunzirawo akhoza kukazimvetsetsa zimenezi. Mukamaliza kulingalira zimene lingalirani za kuthekera kumene ophunzira ali nako ndi maphunziro amene ali nawo kale ngati anapitako ku sukulu kapena ayi, chikhalidwe ndi mtundu wawo komanso chiyankhulo chawo chenicheni, izi zimakuthandizirani kuti musinthe mau ena amene akhoza kukhala olondora mu chikhalidwe chanu koma utukwana mu chikhalidwe cha ena. Monga m'phunzitsi ndi zosayenera kumaphunzitsa zinthu zimene iweyo umazikayikira komanso sumapanga chifukwa zimasowa umboni, dziwani kuti umboni wa m'mabuku sumakhala woona nthawi zonse koma ngati m'phunzitsi umapanga zimene umaphunzitsanzo chimakhala chosavuta kuphunzitsa chifukwa umakhala ukudziwa m'mene choonadi chake chimakhala osati zimene unawenga m'bukhu kapena kuphunzira mkalasi, choncho khalani m'phunzitsi wochita ndi kuphunzitsa osati ophunzitsa kokha ayi.

Kukonzekera kuphunzitsa

Kuphunzitsa kweni kweni kumachitika pamene mukukonzekera ndipo mukalephera kukonzekera bwino-bwino ngati m'phunzitsi dziwani kuti maphunziro amenewo akakukanikani ndipo mukanamizako anthu kumeneko, kuphunzitsa sitiloweza chifukwa gulu lina lililonse limakhala losiyana ndi linzake ndipo mugulumo mumakhala anthu osiyana zipembedzo, zipani, zilankhulo, zikhalidwe komanso ngakhale mtundu ndi mayiko kumene. Kotero ndikofunikira kwambiri kukonzekera kuphunzitsa ndipo mawu, zipangizo, zitsanzo, zithunzi ngakhale nyimbo zimene zikagwiritsidwe ntchito muzikonzetsaletu ndi ku ziyeselera kumbali kwa nokha musanafike pa gulu la anthu. Monga m'phunzitsi ngati ukumva kukoma ndikukhutitsidwa ndi zimene wakonzekerazo ndiye kuti anthu akamvanso chimodzi modzi, koma ngati mukukayikira dziwani kuti anthu akakayikiranso pamene mukuphunzitsa.

Mudziwiretu za malo amene mukukapangira maphunziro, kuchuluka kwa anthu ndi cholinga chawo kuti muthe kusintha zinthu zina zokonzekera kutengera ndi malo ake, mwa chitsanzo ngati mumakonda kuwonetsa ma kanema ndi zithunzi koma mukukaphunzitsa kumudzi ndiye kuti mukasowa chophunzitsa ngati munayika nthawi yambiri ya ma kanema koma kulibe magetsi.

Mavalidwe

Konzetserani mavalidwe anu ndipo sankhani zovala zodzipatsa ulemu zosalembedwa ndi kujambulidwa zinthu zambiri chifukwa anthu amakhala ndi chidwi ndi Malaya anu kuti awerenge koma osamva zimene mukuphunzitsa.

Kuphunzitsa

Pamene mukuphunzitsa gwiritsani nchito njira zonse monga

- Kulankhula pang'ono chifukwa sikuti inuyo monga m'phunzitsi ndiye kuti mumadziwa chilichonse, ndipo anthu amatopa kumangomvera munthu mmodzimodzi ndipo ambiri amangoyamba kugona
- Kuwagawa anthu mmagulu kuti akambirane, izi zimathandizira kuti aliyense azitha kutengapo mbali ndi kumva kuti nayenso ndi wofunikira pa maphunzirowa ndipo kumakhala kosavuta kudzakumbikira za maphunziro amenewa chifukwa amakumbukira mfundo imene iyeyo adanenapo
- Kuwonetsa zithunzi za zitsanzo za zimene mukufotokoza, izi ndi zofunikira kwambiri chifukwa anthu ambiri kumakhala kovuta kumva kwa nthawi yoyamba koma akawona zimakhala zosavuta kumvetsetsa ndipo chifukwa chakusiyana mitundu ndi chalakhulo kumakhala kovuta kuti anthu ophunzira amvetsetse ndi kuzindikira chimene mukutanthauza koma akaona ndi maso amatha kumvetsetsa.
- Kugwira ntchito mukuphunzitsayo, Nthawi yambiri imafunikira kuti anthu azikhala akuchita ndi manja awo ntchito imene mukuphunzitsayo chifukwa anthu ambiri amene amakhala kumudzi amakhala kuti sanapiteko kusukulu choncho amamva bwino akamagwira ntchito ndi manja awo. Ndipo ndi bwino kuphunzitsira panja pa kugwira ntchito pamene ukuphunzitsa alimi akumudzi osati kutaya nthawi mu kalasi izi zimapangitsa kuti alimi amvetsetse bwino bwino zimene mukuphunzitsanzo.

Mbiri ya olemba bukhuli

Luwayo Biswick anabadwa Mchaka cha 1986 m'banja la na 14 ndipo anakula movutika kwambiri chifukwa cha vuto la za chuma. Maphuziro ake anali ovutikira ndipo ngakhale anakhoza kupita ku sukulu ya ukachenjede analibe omulipilira ndipo anasiya sukulu ndikuyamba kuyimba pogwira maganyu owawa kwambiri . kuti apeze ndalama zolipira ku situdiyo Luwayo Biswick anasanduka choseweretsa anthu chifukwa aliyense amangomupatsa ntchito zimene amaziona kuti zinali zowawa kwambiri zakuti iwowo sakadawanitsa kuzigwira. Mu chaka cha 2006 Luwayo anasiya kuyimba ndikulowa ntchito yake yoyamba ngati mulonda koma atangogwira miyezi 6 anamangidwa ponamizilidwa kuti anasokoneza katundu. Kenanako atangotuluka Luwayo Biswick anasankha kusiya kugwira ntchito ina iliyonse ndikubindikira mnyumba kwa miyezi 6 akuwerenga ma buku osiyanasiyana pamene anazindikira kuti ngakhale sanapite ku sukulu za ukachenjede anali kale ndi mzeru zakuya ndi luso lotha kuyima pa gulu la anthu. Kuyambira nthawi imeneyi Luwayo anasankha chisankho chogwiritsa ntchito luso limene ndikupanga tsogolo lake. Mu chaka cha 2009 Luwayo amaliza maphunziro ake oyamba a pemakacha, kenako anayamba kuphunzitsa magulu osiyanasiyana zimene zinamupatsa mwayi wopititsa patsogolo luso lake la kuphunzitsa. Mu chaka cha 2015 Luwayo anapeza mwayi wopitiliza maphunziro ake a pemakacha ku sukulu ya ukachenjede ya Gaia ku America. Luwayo

Biswick wa phunzitsa anthu ambiri ndipo wasintha miyoyo ya anthu ochuluka. Mbiri ya Luwayo Biswick ngati mphunzitsi wa pemakacha inafikira mayiko onse ndipo wa phunzitsa anthu amitundu yosiyana siyana za makhalaidwe a pemakacha.

