

Maphunziro
a
Alangizi othandizira
alimi a ziweto m'midzi

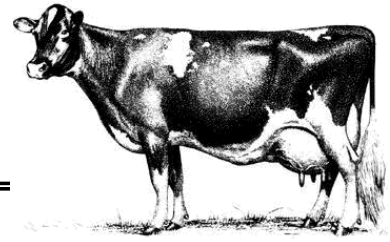
Ng'ombe za mkaka

Small Scale Livestock and Livelihoods Program
PO Box 1604, Lilongwe Malawi



Ng'ombe za mkaka

Phunziro 1: Mau oyamba akawetedwe ka ng'ombe za mkaka



Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

1. Kufotokoza za ubwino wa ulimi woweta ng'ombe za mkaka ku midzi
2. Kudziwa zofunika pa ulimi wa ng'ombe za mkaka
3. Kudziwa mitundu ya ng'ombe za mkaka zomwe zimapezeka m'Malawi muno

Dziwani izi pa kawetedwe ng'ombe za mkaka

Yankhani mafunso awa:

Fotokozani zifukwa zimene anthu amawetera ng'ombe za mkaka m'Malawi muno Pamene muli kulemba muganizirenso za zifukwa zili m'musizi ndi zina zomwe mukuganiza kuti ndi zofunika.

- Zifukwa zowetera ng'ombe za mkaka:
 - Kupeza mkaka wa kumwa panyumba
 - Kupeza ndalama pogulitsa mkaka
 - Manyowa othira kumbewu za m'munda
 - Njira yabwino yogwiritsira ntchito mashanga wotsala ku mbewu.
 - Kupeza nyama kumitheno ndi ng'ombe zomwe zachotsedwa pa ulimi wa mkaka.

Yankhani mafunso awa:

Fotokozani zofunika pa ulimi wa ng'ombe za mkaka pakhola la mlimi wa ng'ombe zochepa. Yerekezani ndi magawo omwe tawaonetsa m'munsimuwa:

- Kuweta ng'ombe za mkaka ndi ntchito yaikulu ndi ya phindu. Sintchito yogwira mwachibwana. Ndiyosiyana kwambiri ndi m'mene timawetera ng'ombe za chikuda. Imafunika zinthu zambiri zofunika kusamalira kwambiri monga :
 - Chidwi cha mlimi
 - Malo
 - Alangizi a za ziweto
 - Ndalama zoyambira
 - Zakudya ndi kadyetsedwe
 - Kuswanitsa
 - Makola
 - Chitetezo cha matenda
 - Msika ndi zofunikira zake
 - Maphunziro ndi kudziwa zofunika kuchita
- Ng'ombe za mkaka za mlimi wang'ombe pang'ono amayenera kudyetsera ng'ombe zake za mkaka m'khola pofuna kuteteza ng'ombe ku matenda. Ngati ng'ombe zikudya kutchire, zikhoza kufa chifukwa cha matenda wofalitsidwa ndi nkhopakupa.

Mitundu ya ng'ombe za mkaka zomwe zimapezake m'Malawi muno

- Pali mitundu yosiyanasiyana ya ng'ombe za mkaka pa dziko lino la pansi. Koma m'Malawi muno mumapezeka mitundu pang'ono yokha. Ndiye sitikambapo za mitundu yonse ya ng'ombe za mkaka koma zokhazo zimene zimapezeka m'Malawi muno.

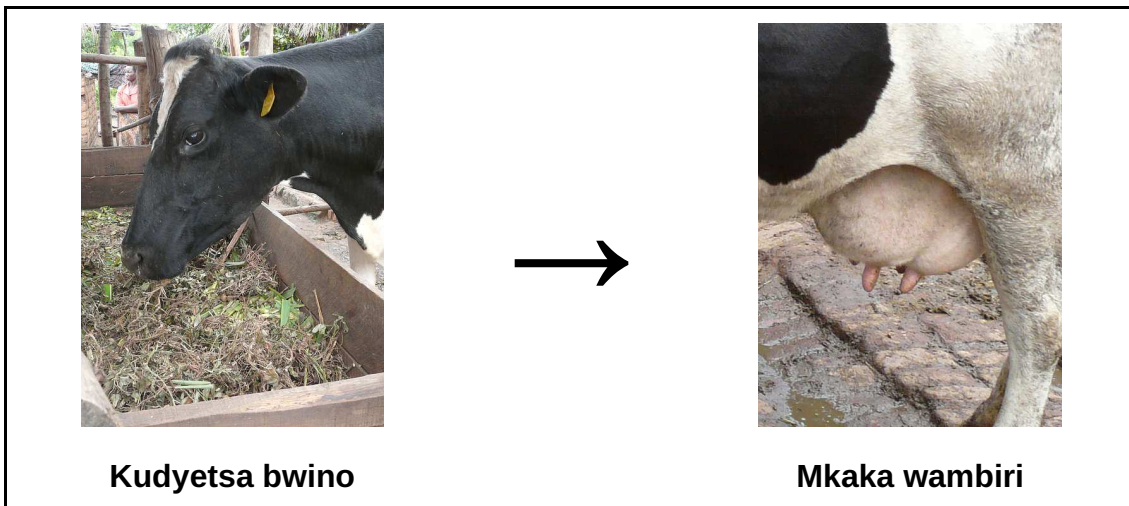
Mtundu wa ng'ombe ya mkaka		Ndemanga
Holstein/Friesian		Zimapereka mkaka wochulukuka zedi Koma wa mafuta wocheperako (3% butter fat)
Jersey		Zimapereka mkaka wocheperapo Koma wa mafuta ambiri
Ayrshire		Zimapereka mkaka wochulukirapo ndi mafuta wochulukirapo. Koma sizipezekapezeka m'Malawi muno.

Kupanga ndi kusamala mkaka

- Ng'ombe imayamba kutulutsa mkaka ikangobereka thole. Mkaka umene imatulutsa pa masiku amene yangobereka kumene umatchedwa chithuwi (*colostrum*). Mkaka wa chithuwi umakhala ndi chitetezo cha matenda ku thole longobadwa kumenelo. Ndikofunika zedi kuti thole liyamwe mkaka wa chithuwi litangobadwa. Muonetsetse kuti thole liyamwe mkaka wokwanira. M'masiku awiri mpaka anayi oyambirira litangobadwa thole lizikhala pamodzi ndi make nthawi zonse ndi kuyamwa m'mene lingafunire.
- Pakatha masiku anayi, muzikama mphumbu zitanu ndi kusiya imodzi kuti mwana ayamwe. Musamasiye mphumbu imodzimodzi tsiku lili lonse koma muzisintha kuti mwana aziyamwa mphumbu zonse.
- Thole limayamba kuonetsa chidwi ndi chakudya cholimba likafika msinkhu wa pakati pa milungu itatu kufika inayi. Mwana akayamba kudya udzu, chifu chake chimayamba kugwira ntchito yake bwino.
- Mwana akafika pa msinkhu wa pakati pa miyezi itatu kufika inayi, amakhala akudya msipu ndi zakudya zina mokwana bwino. Apa mwana akhoza kuletsedwa kuyamwa.
- Pokama ng'ombe payenera kukhala bata, ndipo kukama kuyena kuchitika pa malo omwewo, nthawi imodzimodzi tsiku lili lonse. Kukama kumatenga

mphindi zisanu kufika khumi. Muonetsetse kuti mwamaliza kukama mkaka wonse m'bere panthawi imene mukukama kaya ndi m'mawa kapena kumadzulo. Izi zimapangitsa kuti bere lizipanga mkaka wochuluka.

- Ng'ombe imapanga mkaka kuchokera ku chakudya chimene yadya. Chakudya chimagayidwa m'mimba ndi kutengedwe, m'magazi kupita kubere ndi kukapanga mkaka. Ndiye chakudya ndi madzi zimapanga mkaka.
- **Ntchito ya ulimi wa ng'ombe za mkaka imalowa pansi chifukwa cholephera kupereka chakudya ndi madzi choyenera ndi chokwana kwa ng'ombe zokamidwa.**



Phunziro 2: Kadyetsedwe ka ng'ombe za mkaka

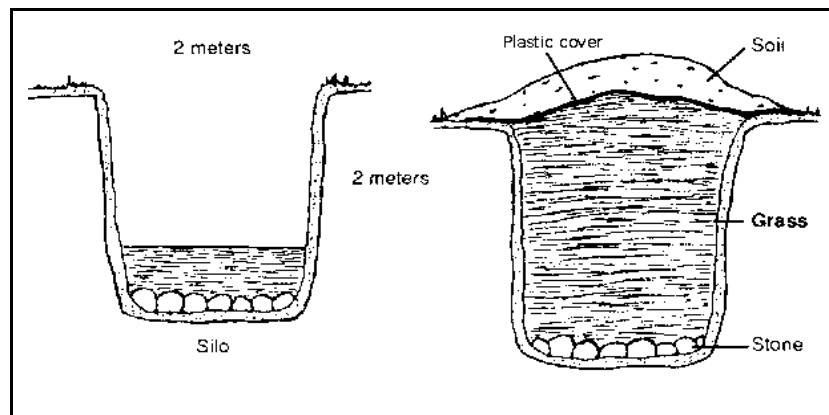
Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

- 1. Kudziwa njira zofunika podyetsera ng'ombe za mkaka**
- 2. Kufotokoza za udzu wofunika kudyetsa ng'ombe za mkaka**
- 3. Kudziwa njira zofutsira ndi kusunga udzu wodyetsera ng'ombe**

- Zakudya za ng'ombe za mkaka ndi msipu wabwino, mashanga (zotsala za mbewu za kumunda), za kudya zofutsa, chakudya chosakaniza ndi zogaya. Masamba mitengo ina ya mtundu wa lukina, msangu ndi ina yotero ndi gawo lina la chakudya cha ng'ombe za mkaka.
- Mukhoza kumweta msipu wabwino ndi kukazipatsa ng'ombe m'khola. Nthawi zambiri udzu umenewu ndi wochita kubzala ndi cholinga chodyetsera ng'ombe. Mtundu wa udzu umene tingadyetsere ng'ombe ndi Nsenjere, Mkolambidzi, Pokopoko, *Silver leaf*, *Desmodium*, *Rhodes grass*, Kazungula, kapinga, lukina ndi wina wotero.
 - Duladulani udzu m'phindi zotalika ngati chikato (10 cm), musanapatse ng'ombe kuti izidya udzu wambiri. Ngati mupatsa ng'ombe udzu wosaduladula, umaonongeka chifukwa imalephera kudya bwinobwino. Ndiye dziwani kuti chakudya chochepa zotsatira zake ndi mkaka wochepe!
- Mashanga a kumunda ndi zinthu ngati masangwe a mtedza, mapesi a chimanga, mapesi a mpunga, masangwe a soya ndi nyemba, ndi zina zotero.
- Zakudya za ng'ombe zikhoza kufutsidwa mnjira zosiyanasiyana.
 - Mfutso wa udzu woumitsa (hay): Popanga hay, udzu umadulidwa pamene ukupota ngalale. Udzu umenewu uyalidwe pansu kwa masiku awiri ndi kumasanduliza kawiri patsiku kuti uwume. Ukawuma, uikidwe m'milu ndi kumanga mabelo. Kutu usataye zakudya zopatsa thanzi, ndi kofunika kusunga mabelo a hay mushedi osati padzuwa. Udzu umene wadulidwa utayamba kuwuma umakhala opanda za kudya zopatsa thanzi. Udzu umene sunaumitsidwe bwino umachita chuku ndipo sukoma. Chuku chimakhala ndi poizoni woti akhoza kudwalitsa ng'ombe.
 - Mfutsa wa udzu wobvundika (silage): silage imapangidwa ku chomera chilichonse chimene ng'ombe imadya chiri chosauma monga udzu, kapena chimanga. Pamafunika kukumba dzenje lokula kulingana ndi kuchuluka kwa udzu kapena chimanga chimene chikubvundikidwa; udzu umadulidwawadulidwa ndi kuwuika m'dzenjemo ndi kumautsendereza pansu mpaka utadzadza mpaka pamwamba. Pamwamba paphimbitsidwe ndi

pepala la pulastiki ndi kuthila dothi pamwambapo kuti musalowe mpweya. Pakapita nthawi silage imapsya ndi kusungika osaola. Potsekula, mumatuluka fungo la ammonia. Mukatsekula dzenje, mudyetsere silage tsiku limodzi kapena awiri, koma ngati dzenje ndi lalikulu, muziphimbitsa msanga yotsalayo kuti mungalowe mphepo.



Nkhuti ya *silage*

(Courtesy FAO "A manual for the primary animal health care worker")

- Mashanga atoleredwe ataumiratu. Akhoza kumangidwa m'mitolo kapena kuunjikidwa pa thandala mu shedi mopanda dzuwa podikira kudzadyetsera ng'ombe nyengo ya chirimwe. Mashanga ali chimodzimodzi hay, ngati zidulidwa zitakhwima ndipo zitayamba kuuma, zimakhala ndi zakudya zopatsa thanzi zochepa. Ngati tiunjika mashanga wouma kweni kweni, akhoza kuchita chuku. Chuku chimakhala ndi poizoni woti akhoza kudwalitsa ng'ombe.
- Zakudya zogaya zosakaniza (dairy ration) zikhoza kugulidwa zambiri nthawi imodzi. Zakudya izi zimakhala zokwererapo mtengo poyerekeza ndi zimene tingasakanize tokha. Alimi ambiri sagwiritsa ntchito zakudya za mtundu uwu muno m'Malawi. Chokomera cha zakudya zosakaniza ku fakitole zimakhala ndi magulu onse azakudya ofunika m'thupi la ng'ombe kuti ipange mkaka wambiri.
- Mitengo yomwe masamba ake ng'ombe zimadya ndiyofunika kuibzala kuti nthambi zamasamba zizipatsidwa kwa ng'ombe kuti zidye. Masamba amitengo imeneyi mumakhala chakudya gulu lokulitsa, loteteza kumatenda ndi mchere. Mitengo imene timadyetsera ng'ombe ndi munga Lukina, Binu, ndi msangu.



Lukina - mtengo wofunika ngati chakudya cha ng'ombe

Phunziro 3: Kadyetsedwe ka ng'ombe

Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

- 1. Kudziwa magulu opatsa thanzi wopezeka mu zakudya za ziweto za mtundu wodya udzu**
- 2. Kudziwa mtundu wa zakudya zopatsa thanzi zofunika kwa ziweto za mtundu wodya udzu**
- 3. Kudziwa ntchito y a za kudya za magulu zopatsa thanzi zopezeka mu za kudya**
- 4. Kudziwa kuphatikiza chakudya cha magulu chodyetsera ng'ombe za mkaka**

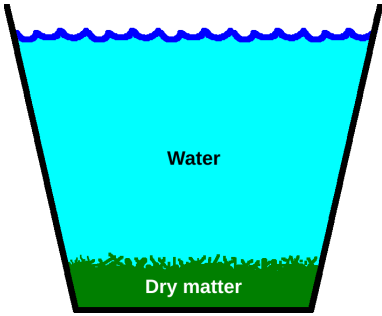
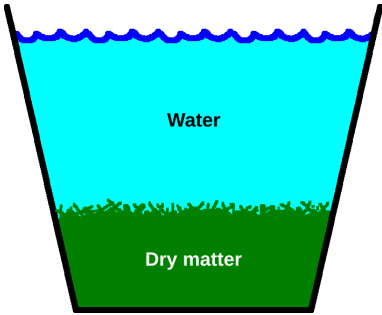
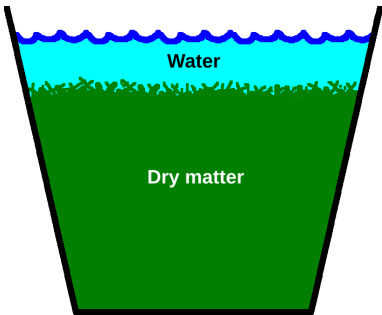
Yankhani mafunso awa:

Mutatha kuyendera pakhola la mlimi wa ng'ombe za mkaka, fotokazani m'mene akudyetsera ng'ombezo monga:

- Kuchuluka kwa chakudya chomwe akudyetsera ng'ombe yokama
- Ndi mitundu iti ya zakudya yomwe ilipo?
- Nanga mu zakudya zimene mumapezeka zakudya ziti za magulu zopatsa thanzi.
- Kodi madzi a ukhondo alipo?
- Nanga miyala ya yonyambita ya mchere ilipo?
- Nanga kodi ng'ombe imodzi yokama imapereka mkaka wochuluka bwanji pa tsiku?

Zopatsa thanzi zomagulu zomwe zimapezeka mu zakudya za ziweto

- Zopatsa thanzi zomwe zimapezeka mu chakudya cha ziweto ndi:
 - Zopatsa mphamvu (za ufa ndi mafuta ndi zinanso)
 - Zokulitsa
 - Mchere ndi ma vitamini (zoteteza ku matenda ndi kuti ntchito za m'thupi ziziyenda bwino.)
 - Madzi
- Zakudya zosiyansiyana zimakhala ndi kuchuluka kwa madzi kosiyana. Msipu wobiriwira umakhala ndi madzi ambiri (80%) pamene mu hay mumapezeka madzi wochepe (10%). Tikafuna kupeza kuchuluka kwa chakudya chomwe ng'ombe yadya, tiyenera kupatula mkuchuluka kwa madzi ndi zolimba zopezeka mu chakudya. Tikati ng'ombe yadya, timanena kuchuluka kwa zolimba zopezeka mu chakudya. Timanena za zolimba zopezeka mu chakudya zimene zadyedwa (*dry matter intake*).
- Zakudya zolimba ndi zouma zomwe za tsalira madzi onse atachotsedwa. Ndi muzakudya zouma izi m'mene mumapezeka magulu a zakudya ngati zopatsa mphamvu, zokulitsa, mchere ndi mavitamini. Mumapezekanso luzi lokhwima loti silinga gayike.

Mu udzu wa wuwisi mumapezeka madzi ochuluka (75-85 %) ndi zakudya zouma zochepa (15-25 %)	 Water Dry matter
Mu silage ya chimanga mumapezeka madzi wocheperako (60-65 %) ndi zouma zochulukirapo (35-40 %)	 Water Dry matter
Mu hay ndi mashanga wouma mukhala madzi wochepera (10-15 %) ndi zouma zambiri (85-90 %)	 Water Dry matter

- Mukhoza kuona kuti ngati ng'ombe yadya msipu wauwisi wolemera makilo 10, ndiye imapezamo chakudya chouma chokwana makilo a pakati pa 1.5 kufika pa 2.5. Koma ng'ombe ikadya makilo 10 a chakudya monga hay, mapesi, masangwe ouma, ndi kuti imapezamo zouma zokwana makilo 8.5 kufika pa 9.

Kuchuluka kwa chakudya chouma chomwe chimafunika pa tsiku m'thupi la ng'ombe

- Ng'ombe imadya chakudya chouma chokwana pakati pa 2-3 % ya kulemera thupi lake pa tsiku.
- Ndiye kuti ikhoza kudya chakudya chouma cholemera makilo 12-18 pa tsiku.
- Izi zikutanthauza kuti ngati ng'ombe ikudyetsedwa udzu wosauma, iyenera kupatsidwa udzu wolemera makilo apakati pa 50 kufika pa 90 pa tsiku kuti ipeze chakudya chouma chofunikira m'thupi lake. Koma ng'ombe singathe kudya udzu wochuluka chonchi patsiku.
- Ngati ng'ombe ikudya udzu wouma ngati hay, masagwe, mapesi, ikhoza kudya makilo okwana 14-20 kuti ipeze za kudya zouma pa tsiku.

Kumbukirani kuti ngati hay idapangidwa ku udzu wouma kale, simupezeka chakudya chopatsa thanzi chambiri. Mumangopezeka luzi lokhalokha.

Mchere ndi mavitameni

- Ziweto zodya udzu (nkhosa, mbuzi ndi ng'ombe) zimasiyana ndi ziweto zina. Mtundu wa ziweto izi zimatha kupanga mavitameni kuchokera ku chakudya chimene zadya. Sikofunikira kwenikweni kupatsa mavitameni woonjezera kwa ziweto za mtundu umenewu.
- Koma nthawi zina ng'ombe za mkaka zima funa mchere woonjezera. Mchere uwu ukhoza kupezeka mu njerwa yonyambita imene imachita kupangidwa. Njerwa ya mchere imakhala yolimba ndipo ng'ombe imapeza mchere ponyambita njerwayo. Ng'ombe ikhoza kufa ngati ikudya mchere wambiri nthawi imodzi.

Kapangidwe kanjerwa ya mchere

- Pano tinenapo za kapangidwe ka njerwa ya mchere yopangidwa kuchokera ku urea ndi molasses imene imagwiritsa ntchito muno m'Malawi. Njira iyi ndi ya chitsanzo chabe. Kalimbidwe ka njerwa ya mchere kamatengera nyengo ndi kutentha kapena kuzizira kwa kumaloko. Koma muonetsetse kuti **ng'ombe isadye mchere wopitira magalamu 100 (osapitirira timabokosi tinai ta machesi ng'ombe pa tsiku)**. Ndikofunika kuti njerwa ya mchere izi ikidwa m'khola mwakonthawi kochepe mpaka ng'ombe itazolowera.

Zosakaniza popanga njerwa ya mchere ya urea ndi molasses

Zophatikizira	Kuchuluka kwake (%)
Molasses	35
urea	15
Ufa wa mafupa kapena mchere wophatikiza kale	2
Mchere wothira m'ndiwo	5
Simenti kapena layimu	13
Madaya achimanga kapena ufa wogaya wa tirigu kapena ufa wa mpunga	20
Ufa wa soya	10
Wonse pamodzi	100

Muonetsetse kuti zinthu izi mwaziyesa bwino pasikelo ndi kuiphatikiza bwino bwino. Ndipo ikani zosakanizazo mzikombole zoti mukhoza kulowa zolembera kilo imodzi. Ndi njerwa ya mchereyi imauma pakapita mulungu umodzi. Ndipo njerwayi ikauma, ikhale yolimba osati kumayoyoka. Njerwa ya mchere ikhale yolimba yoti isamagumuke ng'ombe ikamanyambita, ndi cholinga choti isadye chopitirira magalamu 100 pa tsiku.

Phunziro 4: Kukweretsa ng'ombe za mkaka

Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

1. Kunvetsa za ku kweretsa ng'ombe za mkaka
2. Kudziwa ubwino ndi kuipa kokweretsa ng'ombe za mkaka ndi nkhuzi ndi kukweretsa kochita kuika umuna wa nkhuzi ndi manja poyerekeza ndi m'mene kuliri ku Malawi kuno
3. Kudziwa ndi kuphunzitsa alimi zizndikiro za kuti ng'ombe ili ndi nyere

Yankhani mafunso awa:

Fotokozani zomwe zimachitika ngati ng'ombe ifuna kukweredwa mpaka kutenga bere:

- Zizindikiro za nyere
- Nanga nyere ya ng'ombe imatenga nthawi yaitali bwanji kuti ithe?
- Nanga nyere ikatha pamatenga masiku angati kuti ng'ombe iyambenso nyere ina?
- Nanga bere lang'ombe limakhala la miyezi ingati kuti iswe thole?
- Kupeza nyama kumitheno ndi ng'ombe zomwe zachotsedwa pa ulimi wa mkaka.

Zofunika pa kukweretsa ndi kuswanitsa ng'ombe za mkaka

- Msoti kapena mkota ukayamba nyere ndi nthawi yomwe ungalore kukweredwa ndi nkhuzi,
- Msoti umatha msinkhu pakati pa miyezi khumi, ndi khumi ndi isanu ndi itatu. (10-18)
- Ng'ombe kuti ikhale ndi nyere ina itatha ina pamatenga masiku 21 koma ng'ombe zina zimachita nyere pakati pa masiku 18 kufika 24.
- Ng'ombe ikayamba nyere, imatenga pakati pa maola 10 kufika 24 kuti ithe.

- Njira yovomerezeka yokweretsera ng'ombe ndi kawiri pamene yayamba nyere. Kweretsani koyamba patatha maola 12 chiyambire chanyere ndipo kweretsani kachiwiri ptapita maola 24 chiyambire cha nyere. Ng'ombe ya mkaka imakhala ndi bere pafupifupi masiku 280, kungopitirira miyezi isanu ndi inayi.
- Ng'ombe imayamba kuyamba nyere pakapita masiku 60 kufika 90 itabereka.

Kukweretsa ng'ombe za mkaka

1. Kukweretsa pogwiritsa ntchito nkhuzi:

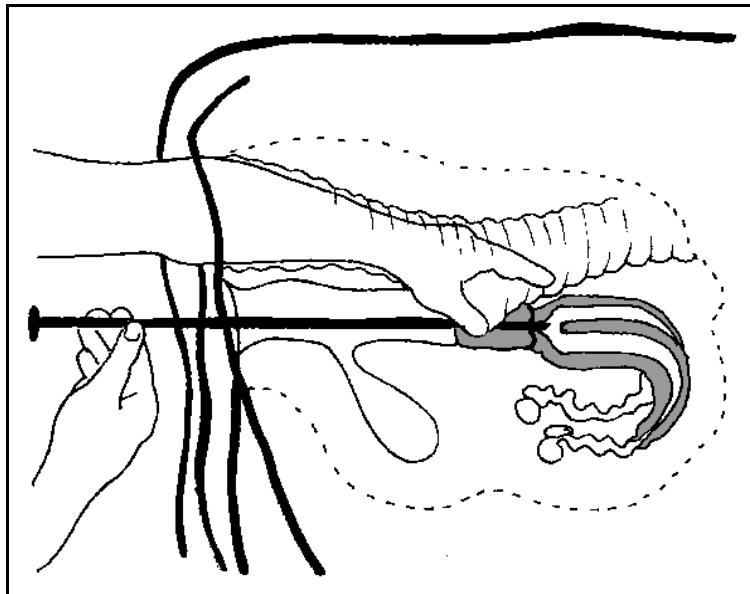
- Ubwino wokweretsa pogwiritsa ntchito nkhuzi:
 - Ng'ombe imatenga bere mosapenekera chifukwa nkhuzi imadziwa nthawi yake yokwerera.
 - Sipafunikanso munthu kuti aziyang'ana zizizndikiro za nyere
 - Palibe kusauka ndi posungira umuna.
- Kuipa kogwiritsa ntchito nkhuzi pokweretsa ng'ombe:
 - Kuweta nkhuzi ndi kodula chifukwa imafuna zakudya, chisamaliro chabwino ndi mankhwala.
 - Mtundu wake wa nkhuzi ndi wasadalirika kuti ukhaza kubereketsa mwana wopereka mkaka wambiri chifukwa sunasankhidwe ndi akatswiri.
 - Ndi kungotaya ndalama kusunga nkhuzi ngati pali ng'ombe za zikazi pang'ona, ngati nkhuzi ikugwiritsidwa ntchito ndi gulu, ndindani amaen azisamalira nkhuziyo.
 - Sikwafupi kupeza nkhuzi zolowa m'malo mwankhuzi zakale muno m'Malawi.
 - Zikhoza kufalitsa matenda opatsirana pokwerana.

2. Kukweretsa ng'ombe pogwiritsa ntchito manja ndi zipangizo: (*Artificial Insemination - AI*):

Iyi ndi njira imene munthu amathira umuna wa ng'ombe m'chiberekero cha ng'ombe yomwe ili ndi nyere pogwiritsa ntchito zida zake woyenera. Njira imafunika munthu wodziwa ndi zipangizo zoyenera.

- Ubwino wokweretsa ng'ombe mwanjira ya AI:
 - Sipafunika kusunga nkhuzi
 - Umuna umachokera ku nkhuzi yosankhidwa bwino
 - Palibe kupatsirana matenda opatsirana pokwerana.
- Kuipa kwake kwa AI:

- Ng'ombe zambiri sizigwira bere poyerekeza ndi izo zakweredwa ndi nkhuzi
 - Munthu ayanera kuyang'ana zizindikiro za nyere mwaluntha.
 - Zida zogwiritsira ntchito pa AI ndi kusungira umuna ndi za mtengo wa ukulu. (liquid nitrogen, flasks, gloves, pistolette, ndi zina zotero)
 - Pafunika anthu ophunzitsidwa bwino kuchita AI.
- Ngati kwanuko kuli zipangizo zokweretsera ng'ombe za mkaka mwa njira AI, kuli bwino kugwiritsa ntchito njira imeneyi chifukwa ndi imene ikugwiritsidwa ntchito muno m'Malawi.



Kuyang'ana zizindikiro za nyere

Yankhani mafunso awa:

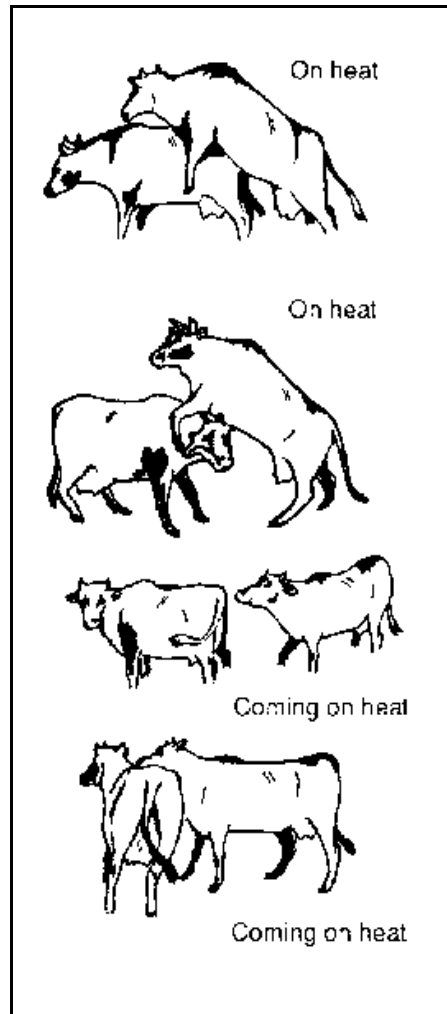
Ndi chifukwa chiyani kuli kofunika kudziwa ngati ng'ombe yayamba nyere?

Kodi mumadziwapo chiyani za zizindikiro za nyere ya ng'ombe za mkaka?

Lembani zizindikiro za nyere mwazona

Yerekazani zimene mwalembe ndi zimene talemba m'minsimu.

- Kudziwa nthawi imene ng'ombe yayamba nyere ndi kofunika zedi. Njira yoti ng'ombe izipereka mkaka imayamba pamene itenga bere. Ngati ng'ombe yatenga bere, ndiye kuti ikupatsani mkaka posachedwa.
- Tikadziwa kuti ng'ombe yayamba nyere, timayesetsa kuti ikwedwe ndi nkhuzi kapena kuchita AI. Ngati taphonya kukweretsa nthawi iyi ndiye papite masiku ena 21 kuti ng'ombe idzachitenso nyere. Apa ndiye takachedwetsa ndi masiku 21 ka thole kamene kadzabadweko. Ndiye kuti tachedwa ndi masiku 21 kuti tiyambe kukama ng'ombe yathu. Kudziwa kuona zizindikiro za nyere ya ng'ombe kumathandiza kuti tipeze mkaka mofulumira.
- Zina mwa zizindikiro za nyere ya ng'ombe ndi zimene zalembedwa pansipa. Koma potengera ndi m'mene zinthu ziliri nthawi zina ng'ombe imaonetsa zizindikiro zoyenera za nyere koma zina sizionetsa zizindikiro ngakhale ziyambe nyere. Ng'ombe nthawi zambiri imaonetsa zizindikiro za nyere ikakhala pagulu maka pakhala malo woti zikutakasuka. Zizindikiro za nyere sizioneka ikakhala yokha kapena ikakhala pamalo opanikizika.
- Zizindikiro za nyere za ng'ombe za mkaka:
 - Kusakhazikika ndi kuliralira nthawi zonse
 - Imada kukhosi
 - Mkaka umachepa
 - Kufwenkha ndi kulumphira ng'ombe zina
 - Kukhala moti ng'ombe ina iyikwere
 - Kumalisecha kumatota
 - Kumaliseche kumatuluka chikazi choyera chamadzimadzi
 - Imakodzakodza
 - Imatulutsa chikazi chophatikizika ndi magazi. Nthawi iyi ndiye kuti mwachedwa kuti muikweretsa.



Zizindikiro za nyere

(Courtesy FAO "A manual for the primary animal health care worker")

- Kuyang'ana zizindikiro zoti ng'ombe yoyamba nyere kuyenera kachitika mosamala kwambiri. Sizoti zimaoneka msanga ayi.
 - Muziyang'ana ng'ombe zanu kawiri patsiku
 - Pazitenga mphindi makumi awiri mukuyang'ana ng'ombe zanu kuti muonetsetse ngati sinayambe nyere. Kuona mongodutsa sikokwanira kuti muone kuti ng'ombe yayamba nyere chifukwa ng'ombe zina sizionetsa kwenikweni kuti zayamba nyere.

Phunziro 5: Makola a ng'ombe za mkaka

Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

1. Kufotikoza za cholinga cha makola oyenera a ng'ombe za mkaka
2. Kufotokoza mitundu ndi kamangidwe kamakola oyenera a ng'ombe za mkaka
3. Kuphunzitsa kamangidwe ka khola loyenera la ng'ombe za mkaka za alimi ang'ono ang'ono

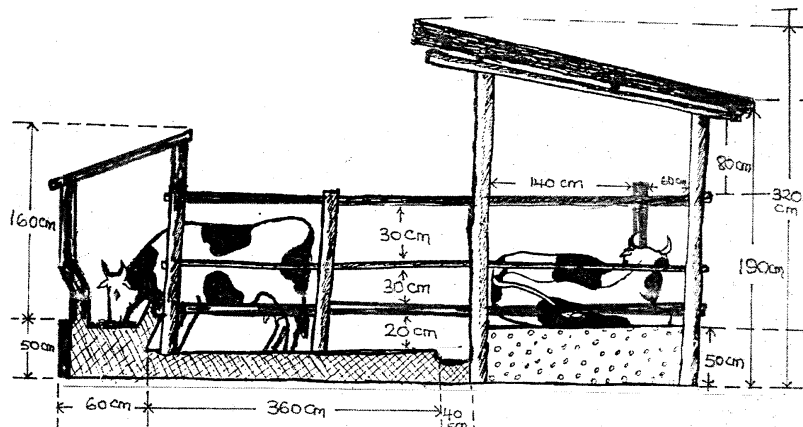
Yankhani mafunso awa:

Fotokozani zomwe zimafunikira pakhola la ng'ombe za mkaka zomwe zimapangitsa kuti khola likhale loyenera. Munene zoyenera kupezeka m'khola ndi ntchito zake ndinso m'mene zingasungire ng'ombe zathu mosangalala.

Nanga kukula kwa kukamwa kwa malo a chipatala chopatsira mankhwala ng'ombe kukhale kwakukulu bwanji kuti ng'ombe isamatembenuke?

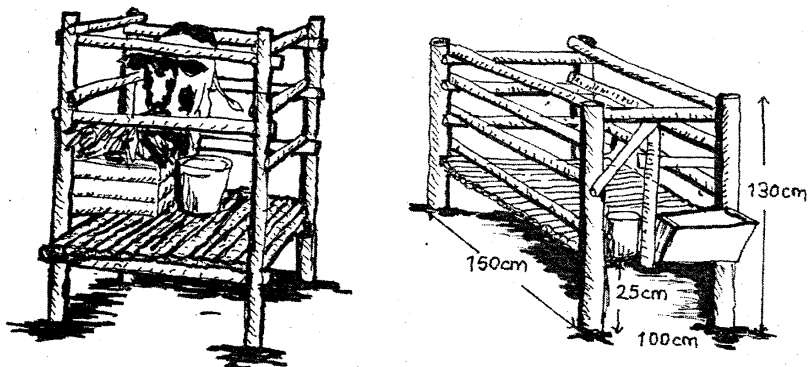
Kodi khola labwino limakhala lotani?

- Pomanga khola labwino, tiyenera kuganizira zinthu izi:
 - **Malo:** Kodi liyenera kukhala motalikirana bwanji ndi nyumba ya mlimi? Kodi tiganizire za anthu akuba ng'ombe? Kodi pamalopo ndi pokwera poti sipangachite lowe m'nyengo ya mvula. Nanga mphepo imaombera mbali iti?
 - **Chitetezo ku nyengo monga mvula, kutentha ndi mphepo ya mkuntho:** Izi ndi zofunikira kwambiri pofuna kuteteza ng'ombe zazikulu, matole ndi alimi eni. Denga labwino ndi lofunika zedi.



Maonekedwe a m'mbali

- **Malo okamira:** Awa ayenera kukhala malo osabvuta kulowako koma woti ng'ombe isathe kutembenuka pa nthawi yokama. Pamalo pokamira mkaka payenera kuthiridwa simenti ndipo pakolopedwa asanayambe ndi atamaliza kukama mkaka. Pasamapezeke kangaude ndi fumbi pozungulira pake.



Malo ogona matole

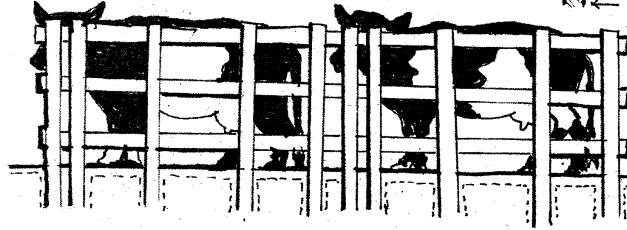
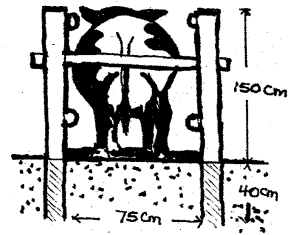
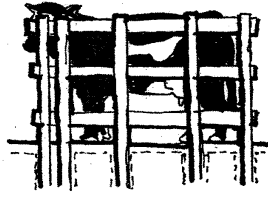
- **Chipatala cha ng'ombe (Crush):** Pakhola payenera kukhala ndi malo operekeramankhwala ndi kupima ng'ombe. Kukula kwa mkamwa mwa chipatalachi ndi 0.75cm. Mitengo ya mbano iyenera kukhomedwa mkati mwa nkomo osati kunja.
- **Chipinda cha thole:** Thole liyenera kukhala lotetezedwa ndipo chipindacho chikhale pafupi ndi pamene make akugonapo. Chipindacho chiyenera kukahala cha m'mwamba pomanga thandala pansi pake.

Poopetsa kuzizra ndi mvula ya mpemera kulowa mchipinda cha thole, pafunika kuika tsekera m'mbali monse mwa chikupa.



- **Magome a zakudya ndi madzi akumwa:** Akhale olimba ndi oti ng'ombe zizifikapo masabvutikira. Pakhale gome lomwera madzi lolimba. Magome a zakudya ndi a madzi amakhala pokwererako kuti ng'ombe zisamapondemo pamene zikudya ndi kumwa.
- **Malo osungira zakudya:** Zakudya monga mabelo a hay, masangwe, mapesi ndi zina zotero zisungidwe pa thandala lomangiwa kudenga la khola. Mashedi a za kudya atha kumangidwa pafupi ndi khola. M'makola ena mumakhala chipinda chosungira zakudya.
- **Malo oika manyowa:** Khonzani malo ounjikapo manyowa kunja kwakhola musanawagwiritse ntchito zina.

Ng'ombe imodzi



Ng'ombe ziwiri

**Poperekera mankhwala
ndi dibi**

Phunziro 6: Kubereka

Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

- 1. Kudziwa kaberekedwe kabwino kang'ombe**
- 2. Kudziwa za mabvuto omwe amaoneka panthawi yomwe ng'ombe ikubereka**
- 3. Kudziwa nkuthandizira ng'ombe yomwe ikuvutika panthawi yobereka**

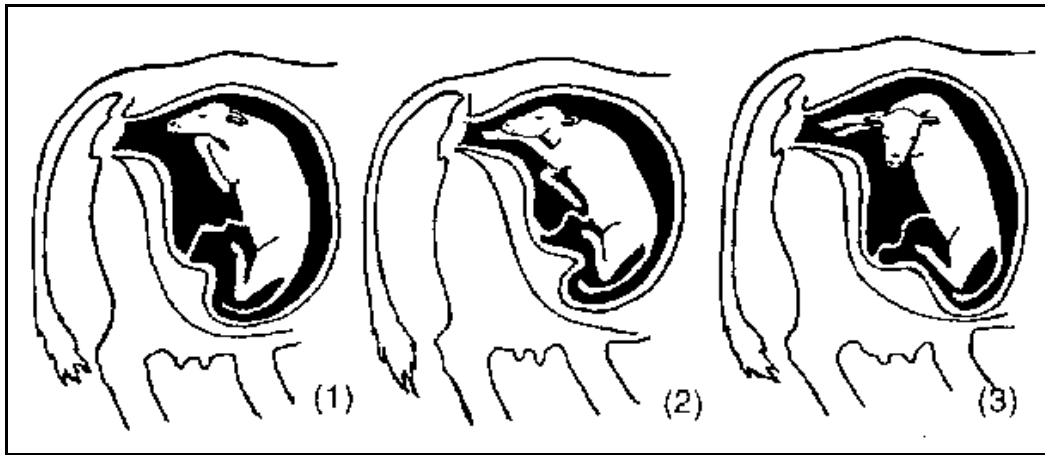
- Nthawi zambiri ng'ombe zimatha kubereka mwana bwinobwino popanda kuthandizira kwina kuli konse. Ndi chinthu chofunika zedi kuisiya ng'ombe kuti ibereke yokha. Musaisokoneze pokhapokha ngati muona kuti pali bvuto.
- Ngati ng'ombe ikubereka popanda bvuto, thole limayamba kutuluka ndi miyendo yonse yakutsogolo m'puno usanatuluke.



Kubereka kwabwino

(Courtesy FAO "A manual for the primary animal health care worker")

- Muipatse nthawi yokwana ng'ombe kuti ibereke bwinobwino payokha. Muionerere itayesa yokha kubereka kwa maola awiri.
- Nthawi zina zinthu sizikhala bwino panthawi yomwe ng'ombe ikubereka. Apa ndiye poyenera kuithandiza kuti ibereke bwino.



Mankhalidwe woipa a thole m'mimba mwa make pa nthawi yoberekedwa
(Courtesy FAO "A manual for the primary animal health care worker")

- Ngati ng'ombe mabvuto aoneka panthawi yoti ng'ombe ikubereka, mutha kuithandizira kuti ibereke.
- Muonetsetse kuti ng'ombe mwaiika pamalo poti singadzipweteke kapena kukupwetekani musanayambe kuithandiza. Musambitse kumaliseche kwa ng'ombe ndi madzi oyera a ukhondo ndipo musalole kuti za ubve zili zonse zisalowe m'chiberekero. Gwiritsani ntchito madzi asopo kuti kuterera kwasopo kukuthandizeni pothandiza kubereketsa. Muonetsetse kuti musambe manja anu musanayambe kuthandiza ng'ombe yanu.
- Lowetsani dzanja lanu m'chiberekero kuti mudziwe kumene thole laloza mutu ndi kumene kuli miyendo yake. Ndikofunika kukankhura thole m'chiberekero, kuti mupeze mpata wolitembenuzira tholelo kuti liyang'ane mbali yoyenera. Musalibweze thole m'chiberekero nthawi yomwe ng'ombe ikutsinya thole chifukwa sizingetheke kulikankha tholelo. Mudikire mpaka pamene yasiya kukankha thole ng'ombeyo.
- Pamene muona kuti mutu ndi miyendo ya thole zili m'malo, mangani miyendo yonse yakutsogolo ndi chingwe cha ukhondo ndi kumakoka pamene ng'ombe ikutsinya thole. Pafunika wokuthandizani kukoka, **koma musamakoke mwamphamvu zedi** chifukwa mutha kuipweteka ng'ombe ndi kuluza ng'ombe pamodzi ndi thole lomwe. Muzikoka chingwe pokhapokha pamene ng'ombe ikukankha thole.
- Ngati mulephera kuchita izi, itanani alangizi a za ziweto.
- Muonetsetse kuti thole layamba kupuma likangobadwa. Maka pamene make akulephera kunyambita tholero.
- Pukutani ma nanda kukamwa ndi m'mphuno mwa thole kuti liyambe kupuma bwino. Pisani m'mphuno mwa thole kuti imve kunyerenyesa ndipo limayetsemula ndi kuchotsa ma nanda omwe anali m'mphuno ndipo limayamba kupuma bwinobwino.

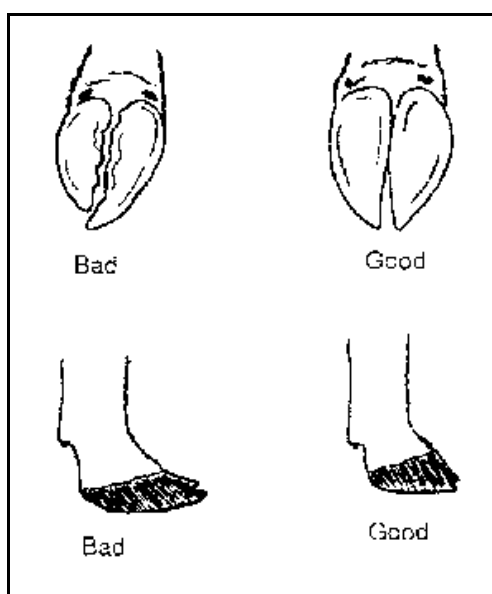
Phunziro 7: Kuwenga ziboda

Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

1. Kudziwa ziboda zomwe zikufunika kuwenga
2. Kudziwa kawengedwe kabwino kosavulaza ng'ombe

- Nthawi zambiri ziboda za ng'ombe zimakula ndi kusalika mobzola mlingo ndi kukhota. Izi zimachitika maka nthawi ya mwamvu pomwe pansi pamakhala ponyowa.



Kaonekedwe ka chiboda - chabwino nndi chofunika nkuwenga
(Courtesy FAO "A manual for the primary animal health care worker")

- Ziboda zikakula/kusalika kwambiri zimapangitsa kuti ng'ombe izimva ululu ndipo imalephera kuyenda kukafuna chakudya ndipo sikudya mokwana.
- Mukhoza kuwenga ziboda pogwiritsa ntchito zipangizo zopangidwira kugwiritsa ntchito imeneyi kapena pogwiritsa ntchito mpeni wakuthwa. Muwenge zoboda mpaka zitaoneke m'mene ziyenera kukhalira.
- Ziboda za ng'ombe zimapfanana ndi zikhadabo za anthu. Ngati muziwenga mozikizira, ng'ombe imamva kuwawa ndipo imataya magazi.
- Muziwenga **moyepula** nthawi zonse.
- Ngati muona kuti ng'ombe yayamba kutaya magazi, **siyani kuwenga**.
- Muonetsetse kuti musawenge kuphazi kopondera kufika potiwisika ayi.

Phunziro 8: Matenda ogwira ng'ombe za mkaka

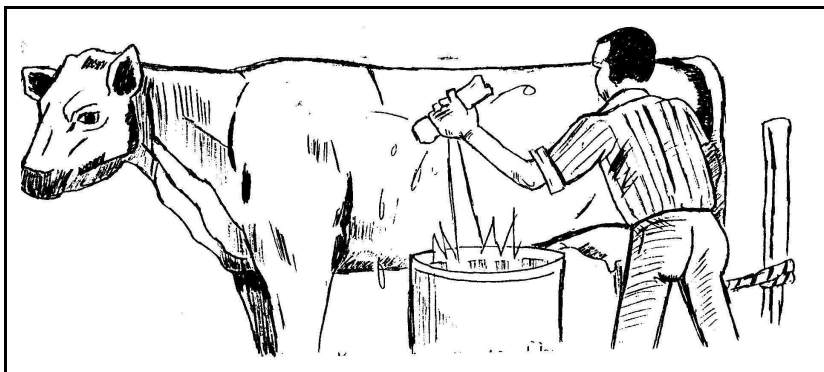
Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

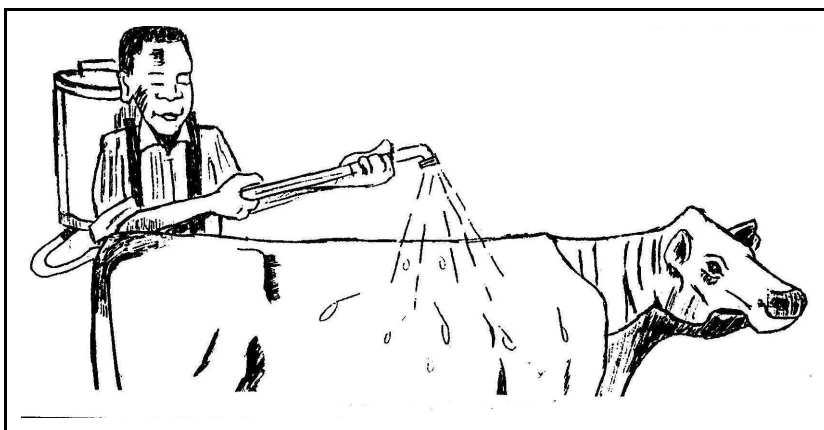
1. Kudziwa mitundu ya matenda omwe amakonda kugwira ng'ombe za mkaka
2. Kudziwa zomwe zimayambitsa matendawa
3. Kudziwa chisamaliro cha ng'ombe za mkaka pofuna kuchepetsa imfa za ng'ombe chifukwa cha matenda
4. Kudziwa kuteteza ndi kuchiza ng'ombe za mkaka ku matenda

Yankhani mafunso awa:

Fotokozani zomwe zimapangitsa kuti ng'ombe za mkaka zizifa, kudwala kapena kuleka kubereka ndi kupereka mkaka wokwana m'makola a alimi ang'onoang'ono muno m'Malawi.



Dibi wosambitsa



Dibi wopopera

Matenda aku mawere (Mastitis)	Matenda a mastitis amagwira bere la ng'ombe. Matendawa amachititsa kuti mkaka utsike ndiponso kuti ukhale woipa wasayenera kumwedwa, amadwalitsa ng'ombe, ndipo nthawi zina ng'ombe imafa.
Choyambitsa	Chomwe chimayambitsa matendawa ndi kachiroombo kosawoneka ndi maso ka <i>bacteria</i> . Pali mitundu yosiyanasiyana y a tiziromboti tomwe timayambitsa matendawa.
Zizindikiro	Ngati ng'ombe yagwidwa ndi matenda a <i>mastitis</i>, itha kuonetsa zizindikiro izi: • Mkaka siuwoneka bwino, umakhala watimisere, kapena umawoneka wa mtundu wachilendo. • Bere limatentha ndipo ng'ombe imamva ululu ndipo nthawi zina bere limatupa (ng'ombe imaponya theke ikamakamidwa) • Khungu la nkhumu limang'ambikang'ambika. • Ng'ombe imada kukhosi ndipo imaoneka yodwala.
Katetezedwe	Chitetezo chachikuru ndi ukhondo wa pakhola. Munthu wokama ayenera kukhala wa ukhondo posamba m'manja ndi sopo, wopanda matenda wopatsirana ngati chinfine, chifuwa, ndinso zirona za m'manja, ndipo akhale ndi zobvala zoyera, tsitsi lalifupi kapena kubvala chisoti kapena duku kumutu nthawi yokama. Bere liyenera kutsukidwa bwino ndi sopo ndi madzi wofunda, ndi kulipukuta ndi kansalu koyera. Matendawa atha kufalikira ku ng'ombe zina. <i>Bacteria</i> atha kukangamira kumanja kwa okama ndi kufalikira kung'ombe ina. Pofuna kuteteza zimenezi, kamani ng'ombe yomwe ikudwala matendawa momalizira.
Kuchiza	Ng'ombe itha kuchira kumatendawa ngati yapatsidwa mankhwala mwansanga Bere lang'ombe lomwe lagwidwa ndi matendawa liyenera kutsukidwa ndi nsopo ndi kukamidwa koti musamatsale mkaka. Kukamaku kuchitike kawiri kapena kangapo patsiku ndi kumasina berelo. Nthawi zina ng'ombe imatha kuchira ngati muchita zimenezi. Ng'ombe itha kukamidwa polowetsa kapaipi kunkhumbu za bere. Nthawi zina matendawa amachiritsidwa ndi mankhwala ophera tizirombo toyambitsa matenda pothira mankhwalawa mkati mwa bele kudzera kunkhumbu. Mankhwalawa amapezeka othira kale m'timachubu tothirira kunkhumbu ili yonse.

Matenda a kugwa (<i>Milk fever</i>)	Matenda awa amagwira ng'ombe ndipo imafoka kapena kufa ziwalo nthawi imene ikubereka kapena itangobereka kumene. Nthawi zina nthendayi imatchedwa kuti <i>parturient paresis</i> .
Choyambitsa	Pamene ng'ombe yatsala pang'ono kubereka, imayenera kupangiratu mkaka wambiri ndi chithuwi cha thole lobadwalo. Kuti mkaka upangike pamafunika mchere wa <i>calcium</i> umene umachokera mziwalo zina za m'thupi la ng'ombe. Ngati mchere wa <i>calcium</i> utsika m'magazi koposa mlingo woyenera, zizindikiro za matenda <i>milk fever</i> zimayamba kuoneka.
Zizindikiro zake	 Ng'ombe imakhala ndi pachufuwa pake itaika mutu mkhwapa. Kutentha kwa thupi kumakhala bwinobwino. Kenaka ng'ombe imakomoka, ndi kufa.
Kuteteza	Muonjezere mchere kuchakudya cha ng'ombe. Mchere wophatikiza wa <i>mono calcium phosphate</i> (MCP) ndi umene ungathe kuonjezera calcium m'thupi lang'ombe. Muyenera kumathira mchere ku chakudya cha ng'ombe maka pamene ng'ombe yatsala miyezi yochepa kuti ibereke.
kuchiza	Ng'ombe yodwala <i>milk fever</i> itha kuchiritsidwa poibaya nytereti ya mankhwala a <i>calcium borogluconate</i> . Bayani mankhwala pang'ono pang'ono pa nthawi yapakati pa mphindi 10 ndi 20. Kungopereka mankhwalawa panthawi imodzi ng'ombe itha kufa.

Matenda ofalika ndi nkhopakupa	Matendawa amafalika ndi nkhopakupa Matendawa ali ngati malungo omwe amagwira anthu. (kachirombo koyambitsa malingo kamadya magari kamene kamafalitsidwa ndi udzudzu.)
Choyambitsa	Timayambitsa ndi tizirombo timene timakhala m'magazi nthawi zina. Matendawa amagwira ng'ombe za mtundu uli wonse muno m'Malawi. Amagwira kwambiri ng'ombe za mkaka kusiyanana ndi za Malawi Zebu.
Zizindikiro zake	Kuchucha dovu, kutentha thupi, kuda kukhosi, kutupa akalimbwi, kufa
Kuteteza	Katetezedwe kamatenda awa ndi kuti ng'ombe zisakhale ndi nkhopakupa. Musalole ng'ombe za mkaka kukadya kumalo kumene kuli nkhopakupa (kumalo kumene kumadyera ng'ombe za Malawi Zebu). Njira yabwino ndikudyetsera ng'ombe m'khola. Apa ndiye kuti mwaziteteza ng'ombe zanu ku nkhopakupa. Mutha kugwiritsa ntchito mankhwala ophera nkhopakupa, mankhwala amenwa amatchedwa kuti dibi. Kathiridwe kake kamankhwala ndi kusambitsa, kupopera ndipo ena amangodontheza pamsana pang'ombe. Tsatilani malangizo amene alaembedwa pa botolo la dibi akathiridwe kake.
Kuchiza	Ng'ombe itha kuchira ngati ipatsidwa mankhwala mwamsanga. Koma singachire ngati ipatsidwa mankhwala matenda atakula. Pali mankhwala osiyanasiyana omwe angathe kugwiritsidwa ntchito.

Matenda a zosagayika zomezedwa m'thupi mwatsoka (Hardware disease)	
Choyambitsa	Nthawi zina ng'ombe zimadya mawaya kapena misomali ndi zinthu zina monga mapepala a pulasitiki. Zinthu ngati izi zitha kutuluka pamodzi mu ndowe nthawi zina, koma nthawi zambiri zimayambitsa matenda ndi imfa.
Zizndikiro zake	Ng'ombe imadwala m'masiku wochepa ndipo imafa. Ngati chimene chamezadwacho sichinapweteka ng'ombe kwambiri, imayamba kukana kudy ndipo imawonda ndi kumapereka mkaka wochepa.
Kuteteza	Ndikofunika zedi kumachotsa zinthu zosafunikira, makamaka tizitsulo ndi mapulasitiki, kuzakudya za ng'ombe. Zinthu ngati izi sizifunika kupezeka m'khola ndi malo ena ali wonse omwe ng'ombe zimakhala, kudutsa ndi kudyera.
Kuchiza	Palibe mankhwala aliwonse wochizira matenda amenewa. Alimi ayenera kuonetsetsa kuti ng'ombe zawo zisameze zinthu ngati tatchulazi. Palibe chimene mlimi angachite ngati ng'ombe yameza waya, msomali, tizitsulo kapena pepala la pulasitiki koposa kudikira kuti idwale ndi kufa ikapanda kuzitulutsa pamodzi ndi ndowe.

Mafunso apomaliza pa maphunziro a gawo

1. Kodi ndi mitundu iti yang'ombe za mkaka yomwe imapezeka muno m'Malawi?
2. Kodi chomwe chimalepheretsa alimi a ng'ombe za mkaka kukama mkaka wokwanira m'Malawi muno ndi chiyani?
3. Tchulani njira zitatu zomwe mungasungire zakudya za ng'ombe za mkaka zodzadyetsera nyengo ya chirimwe.
4. Kodi muzakudya izi mumapezeka zakudya zouma zochuluka bwanji m'maperesenti:
 Msipu wauwisi?
 Mu udzu wouma (hay)?
 Mashanga monga masangwe?
5. Kodi msoti wa ng'ombe umatha msinkhu pa miyezi ingati?
6. Kodi Nyere ya ng'ombe imakhala maorla angati isanathe?
7. Nanga pamapita masiku kapena milungu ingati kuti ng'ombe iyambenso nyere?
8. Nanga ng'ombe ikaswa, pamapita masiku angati kuti iyabe kukhala ndi nyere?
9. Kodi zizindikiro zoti ng'ombe ya mkaka yayamba nyere ndi ziti?
10. Kodi ubwino ndi kuipa kokweretsa ng'ombe ndi njira yo gwiritsa ntchito:Nkhuzi ?
 Zipangizo zoikira umuna mchiberekero cha ng'ombe?
11. Nanga kukula kwa mkamwa mwa chipatala (crush) cha ng'ombe za mkaka ndi kotani?
12. Kodi ndi ziwalo ziti za thole zomwe zimayamba kutuluka ng'ombe ikamabereka mosabvuta?
13. Lembani zizindikiro za matenda akumawere a ng'ombe a masitaitisi.
14. Kodi matenda a milk fever amakonda kugwira ng'ombe nthawi iti?
15. Kodi chimene chingayambitse matenda a hard ware ndi chiyani?