

**Maphunziro**

a

**Alangizi othandizira  
alimi a ziweto m'midzi**

**Nkhumba**

Small Scale Livestock and Livelihoods Program

PO Box 1604, Lilongwe Malawi



## Nkhumba

### Phunziro 1: Mau oyamba akawetedwe ka nkhumba



Zolinga za phunziroli:

Pomaliza pa phunziro ili wophunzira athe:

1. Kufotokoza kawetedwe kankhumba kosiyanasiyana muno m'Malawi
2. Kudziwa kufunika kwa nkhumba muno m'Malawi
3. Kudziwa kufunika kwake kosamalira nkhumba mwanjira za makono

### Dziwani izi pa kawetedwe ka nkhumba

#### *Yankhani mafunso awa:*

Fotokozani zifukwa zimene anthu amawetera nkhumba (aliyense anene zifukwa zimene amawetera nkhumba kudera la kwao). Mulembe kuyambira ndi chifukwa chofunikira zedi ndi kumatsika. Pamene muli kulemba, muganizirenso za zifukwa zili m'musizi ndi zina zomwe mukuganiza kuti ndi zofunika.

- Nyama ya ndiwo
- Kupeza ndalamu
- Manyowa othira kumbewu za m'munda
- Mafuta ophikira owenga kunyama yankhumba

#### *Yankhani mafunso awa:*

Fotokozani kawetedwe kankhumba kosiyanasiyana muno m'Malawi. Yerekezani ndi magawo omwe tawaonetsa pa tsamba lotsatirali:

Kawetedwe	Kufotokoza
1. Kudyatsera m'khola (Kolowetsa zambiri)	<p>Ndi alimi pang'ono chabe amene amaweta nkhumba poikirapo mtima wonse ndi kulowetsapo zambiri. Koma ndi alimi amenewa amene akutulutsa zambiri zochokera ku nkhumba.</p> <p>Mlimi wotere amaweta nkhumba chifukwa chofuna kupindula ndipo amaweta nkhumba zochokera kunja monga Large white, ndi Landrace: ndipo amazidyetsera bwino, m'khola labwino ndi chitetezo cha matenda chokwana.</p>
2. Kodyetsera m'khola (Wolowetsa zocheperako)	<p>Awa amaweta nkhumba zamtundu wa Large white, Landrace ndi mitundu ina ya kholo lachilendo ndi ya chikuda.</p> <p>Nkhumba zaho amadyetsera m'khola ndipo sazitayira.</p> <p>Amadyetsa zakudya zogula, zopanga okha ndi zotsala zapakhomo</p> <p>Nthawi zina nkhumba zimakadya kumalo otchinga ndi mpanda kumene kuli msipu wabwino. Amazipatsano chakudya choonjezera chamagulu.</p> <p>Nkhumbazi amadzazitsekera m'khola pamene zatsala pang'ono kuswa, pamene akuzilera ndi pamene akuzinenepetsa pokonzekera kupha.</p>
3. Kawetedwe kosallowetsa zambiri (kongotayira)*	<p>Nkhumba zotere zimakhala zachikuda. ndipo zimakhala m'khola usiku wokha.</p> <p>Nkhumba zotere zimadzifunira zokha zakudya.</p> <p>Theka la nyama yankhumba imene imadyedwa muno m'Malawi imachokera ku nkhumba zimenezi.</p> <p>Nkhumba amazitayira ndi kumayenda kufuna zakudya zokha. Nthawi zina amazitsekera mtizisakasa tamakola ndi kumazipatsa gaga, zotsalira zakumunda ndi zithima za nthochi.</p> <p>Kawetedwe aka sikobvomerezeka chifukwa nkhumba zitha kutenga matenda mosabvuta kuphatikizapo matenda ogwira ziweto ndi anthu.</p>

- Ife koma tichite chidwi ndi kawetedwe kachiwirika chifukwa nkhumba zimakhala m'khola nthawi zonse ndi kudyetsedwa bwino.

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\* Kawetedwe kongotayira ndi kongogweramo. Kawetedwe kankhumba kotere sikololedwa m'Malawi muno. Pali lamulo laboma loletsa kutayira nkhumba. Nkhumba zitha kutenga matenda mosabvuta ndipo ena mwa matendawa zitha kupatsira anthu. Ndiye pano sitikambirana za kawetedwe kotere kankhumba.

### **Yankhani mafunso awa:**

Fotokozani zinthu zolowa (chilichonse chofunika kugula, kapena kumanga kuphatikizapo antchito) pa kawetedwe ka mitundu yonse imene yatchulidwayi. Muganizirepo zolowa izi:

- Antchito
- Chakudya
- Khola
- Mankhwala ndi katemera
- Mayendedwe a chakudya ndi nkhumba pokagula ndi pokagulitsa
- Zolowa pakupha

### **Yankhani mafunso awa:**

Fotokozani zinthu za phindu zotuluka mu ulimi wa nkhumba pa kawetedwe kamene tatchulaka. Ganizirani poyankha:

- Kuchuluka kwa nkhumba zomwe mwagulitsa chaka chilichonse ku chokera ku mkota umodzi
- Kuchuluka kwa nyama yomwe ingapezeke ndi yomwe angagulitse.
- Kuchuluka kwa ndalama zomwe zingapezeke kuchokera ku mkota umodzi uli wonse umene ukuwetedwa.
- Kuchuluka kwa manyowa ndi mafuta
- Zotayika/ zotayika chifukwa chosadyetsera bwino ndi chifukwa cha matenda

Fotokozaniso izi molingana ndi mtundu wa kawetedwe kankhumba:

- Matenda ogwira nkhumba
- Chiopsyeko cha matenda ochokera kunkhumba ndi kupatsira anthu.

## **Phunziro 2: Makola a nkhumba**

**Zolinga za phunziroli:**

**Pomaliza pa phunziro ili wophunzira athe:**

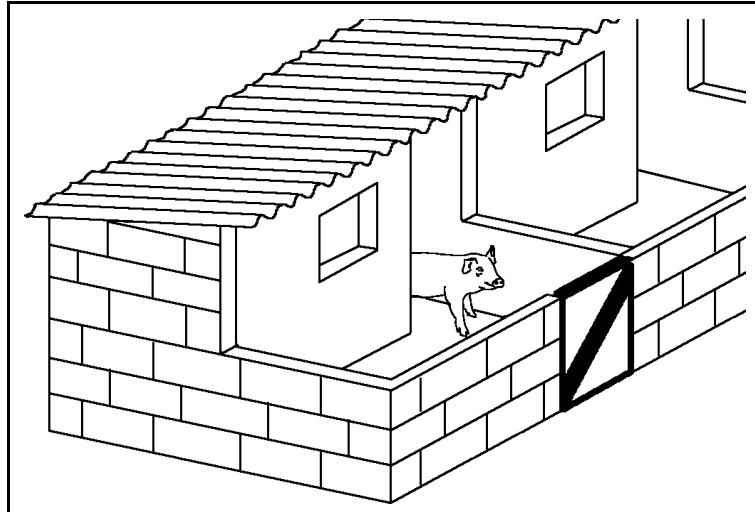
- 1. Kudziwa zofunikira za makola oyenera a nkhumba**
- 2. Kudziwa kamangidwe kamakola abwino a nkhumba**

***Yankhani mafunso awa:***

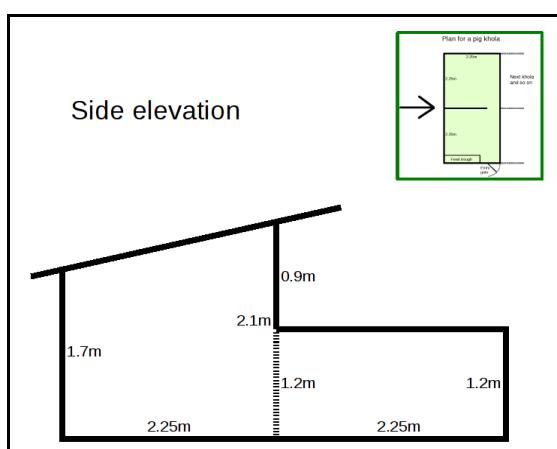
Fotokozani za m'mene khola labwino la nkhumba liyenera kukhalira:  
Poyankha ganizirani za malo oyenera, kukula kwake, mtundu wa denga, malo odyera ndi omwera madzi, ndi ukhondo wa m'khola.

### **Zofunikira kuganizira pomanga khola la nkhumba**

- Posankha malo omangapo khola la nkhumba ganizirani izi:
  - Khola limangidwe pafupi ndi nyumba ya mlimi ngati kumaloko kuli chiopsyazo cha umbanda woba nkhumba. Ndi kofunikirano kuganizira ngati ndi kofunkika kuyang'anitsa khola la nkhumba kunyumba ya mlimi
  - Ganiziraniso za fungo loipa lomwe limachokera m'khola la nkhumba. Malo akhale kopita mphepo kuti fungo lisamapite kunyumba ya mlimi.
  - Khola limangidwe pamalo pokwera pamene sipadikha madzi ndi kuchita matope ndipo popanda lowe nthawi ya mwamvu.
  - Pansi pakhola pakhale potsetseraka pang'ono cha kungalande yotulutsa madzi ndi mkodzo kuti zisamadikhe m'kholamo.
- Nkhumba ndi ziweto zomwe zimapanga chizolowezi cha kachitidwe ka zinthu. Ngati zipatsidwa malo okwana, zimasankha malo wochitira chimbudzi ndi kumadyera pamalo ena. Koma zimalephera kuchita zimenezi chifukwa chakuchepa kwa malo kapena kuchepa kwa chisamaliro
- Khola liyenera kukhala ndi zikupa zomwe zili ndi mazenera akulu bwino kuti mpweya wokwanira uzitha kulowa bwino koma osalola kuti mphepo ya mkuntho kapena yozizira izilowa. Ana a nkhumba amafuna malo ofundira chifukwa amabvutika kapena kufa kumene ndi kuzizira.

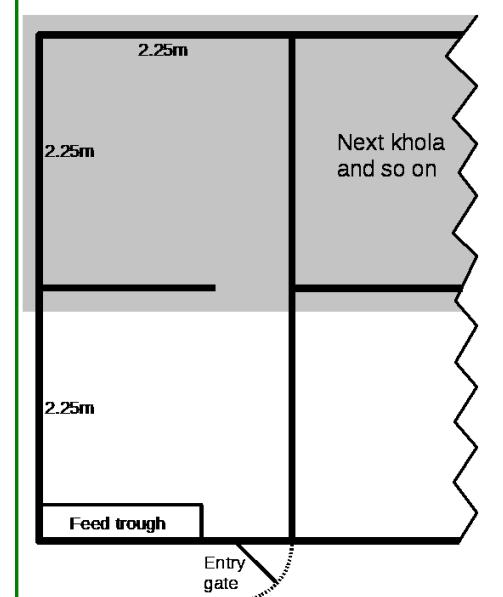


Khola la nkhumba la mkota umodzi ndi ana ake



Maonekedwe a m'mbali mwa khola la nkhumba

Plan for a pig khola



### Mipanda iwiri:

- Pofuna kupewa chigodola cha nkhumba makamaka kwa ana a nkhumba. Njira imodzi yotetezera chigodola kuti chisalowe m'khola la nkhumba ndi kumanga mipanda iwiri yozungulira khola ndi kukhala polowera ndi potulukira pamodzi. Anthu onse olowa m'khola ayenera kusamba m'manja mwawo ndi sopo ndi madzi kapena madzi othira mankhwala ophera tizirombo toyambitsa matenda.

## **Magome wodyera ndi womwera madzi:**

- Gome lodyera nkhumba liyenera kukhala lalikulu bwino kuti nkhumba zonse zizitha kukwana pakudya. Kukula kwa gome kumatengera ndi misunkhu ya nkhumbazo. Pofuna kungoyerekeza, gome la nkhumba liyenera kukhala ndi kukamwa kotalika masentimita 20 mulifupi ndipo kutalika kwake kukhale masentimita 20 pankhumba ili yonse yaikulu.
- Gome lomanga ndi simenti mkatи mwa khola limakhala lolimba ndipo silionongeka msanga.
- Magome odyera ayenera akhale akulu kuti nkhumba zithe kudyera pamodzi panthawi imodzi. Kukula kwa gome lodyera kumalingana ndi misinkhu ya mtundu wa nkhumba zimene zikuwetedwa pakholapo. Magome omangira simenti ndi abwino chifukwa ndi olimba chifukwa nkhumba sizingawawononge mosabvuta.
- Gome la madzi lomwera nkhumba liyenera kukhala lozama ndithu kuti nkhumba zisamataye madzi. Gome limeneli liyenera kumangidwa molumikiza ku chikupa cha khola. Mlingo wa mulifupi mwa gome uyenera kukhala wotalika ndi masentimita 20 ndi mlingo wa mulitali uyenera kutalika ndi mita imodzi.
- Magome omwera madzi ayenera kukhala wozama ndithu kuti nkhumba zisamataye madzi pakumwa. Magomewa amangidwe molumikiza kuchikupa chakhola.

### **Phunziro 3: Zakudya ndi kadyetsedwe ka nkhumba**

**Zolinga za phunziroli:**

**Pomaliza pa phunziro ili wophunzira athe:**

- 1. Kudziwa za zamagulu a zakudya zofunika m'thupi la nkhumba**
- 2. Kudziwa kusiyana kwa za kudya za nkhumba zomwe zimapezeka m'madera awo**
- 3. Kufotokoza mitundu ya zakudya za nkhumba zomwe zilipo**
- 4. Kuphazitkiza chakudya cha nkhumba choyenera**
- 5. Kudziwa kumanga magome woyenera wodyera nkhumba**

### **Kufunika kwa zakudya zosiyansiyana za nkhumba**

**Yankhani mafunso awa:**

Fotokozani magulu a zakudya ofunikira kuti nkhumba zikule bwino ndi kukhala za thanzi.

- **Chopatsa mphamvu:** (Za ufa ndi mafuta) ndi zofunika pokulitsa. Ngati chakudya chomwe nkhumba ikudyia chiri ndi gulu lochepa la chopatsa mphamvu, ndiye chiziperekedwa chambiri kuti zikule bwino. Ngati zikudya chakudya chambiri chopatsa mphamvu, nkhumba zimanenepa.
- **Chokulitsa:** Chokulitsa mwachangu ndi kuchulukitsa nyama. Ana a nkhumba amafunika kudya chakudya chokulitsa ku za kudya zawo kusiyana ndi za zikulu.
- **Mchere ndi zoteteza kumatenda:** Izi ndi zofunika popereka mphamvu ndi kuteteza kumatenda.
- **Madzi:** Ndi gawo lofunikira zedi kuzakudya zonse. Ziweto zitha kukhala nthawi yayitali popanda chakudya kusiyana ndi popanda madzi. m'khola muzipezeka madzi aukhondo nthawi zonse. Madzi azisinthidwa pafupipafupi.

## Nanga za kudya za magulu zi zimapezeka m'zakudya ziti?

### **Yankhani mafunso awa:**

Tchulani zakudya zomwe zili m'gulu la zopatsa mphamvu?  
Zokulitsa? Zoteteza kumatenda? Nanga nkhumba zimapeza gulu la za mchere kuti?

- Mbewu za mtundu wa chimanga ndi zimene mumapezeka chakudya chopatsa mphamvu chambiri. Nkhumba zimakula bwino pamene zidyet sedwa chakudya chambiri cha mtundu uwu.
- Za kudya za mbiri zomwe nkhumba zimadya mumapezeka chakudya cha gulu lopatsa mphamvu koma osati mofanana. Koma zakudya zimene mumapezeka chakudya chagulu lopatsa mphamvu ndi monga:
  - Chimanga (mgaiwa) ndi madeya, gaga
  - Mpunga, misere ya mpunga ndi madeya a mpunga
  - Mapira ndi madeya a mapira
  - Ndi zina za ufa monga : chinangwa, mbatata, makungu ambatata, ndi mchewere
- Mzakudya zonse za nkhumba, mumapezeka gulu la chokulitsa koma mosiyanasiyana. Koma zakudya zimene mumapezeka zakudya zambiri zokulitsa ndi monga izi:
  - Nyemba za soya (zowiritsa kapena kukazinga kupha poizoni)
  - Nyemba, khobwe, nandolo
  - Chiponde cha njere za thonje, chiponde cha njere za mpenda dzuwa, chiponde cha mtedza (atafinya mafuta)
  - Masamba a lukina (akhale gawo limodzi lamagawo khumi a chakudya)
  - Nsomba zouma kapena zogaya
- Zakudya zina zomwe mumapezeka za gulu loteteza kumatenda ndi monga izi:
  - Kholowa, bonongwe, chamwamba, chisoso ndi khovani
  - Kabichi
  - Zithima za nthochi
  - mphukira za udzu
  - Guwafa ndi mango

- Zina zophatikiza ku zakudya za nkhumba zimapezeka ku masitolo a za mankhwala. Izi ndi za mtundu wa mchere ndi zoteteza kumatenda (mavitameni) zimene zimafunika zochepa kwambiri. Zimafunika ku nkhumba zowetedwa mosamala kwambiri. Ina mwa michere ndi mavitameni ndi awa:
  - iron (amapezeka mzinthu zosianasiyana)
  - methionine
  - mono calcium phosphate
  - lysine
- Nkhumba ziyenera kupatsidwa chakudya chosianasiyana poyerekeza ndi msinkhu wake. Mtundu wa chakudya chilichonse umakhala ndi zofunika zake molingana ndi msinkhu wa nkhumba. Pali zakudya za:
  - Chakudya cha ana ankhumba woyamwa (*creep ration*)
  - Chakudya cha ana a nkhumba oletsedwa kuyamwa (*weaner ration*)
  - Chakudya cha nkhumba zomwe zikukula (*grower ration*)
  - Chakudya cha mikota ndi a tonde a nkhumba.
- Muonetsetse kuti nkhumba zikuthamangira kudya. Ngati pali nkhumba yomwe iribe chidwi chodyera, ndiye kuti ikudwala.

**Kaphatikizidwe ka chakudya cha ana a nkhumba msinkhu wa milungu iwiri kufika milungu isanu ndi iwiri:**

Chakudya chosakanizira	Kuchuluka kwa zakudya zosakaniza		
	Kasakanizidwe koyamba	Kasakanizidwe Kachiwiri	Kasakanizidwe kachitatu
Madeya/gaga wachimanga	70	63	70
Ufa wa soya	7	6	5
Chiponde cha njere za thonje	10	20	15
Nsomba zogaya	7	5	4
Mafupa ogaya	2	2	2
Phulusa labwino	2	2	2
Dothi lakatondo	2	2	2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Kaphatikizidwe ka chakudya cha nkhumba zomwe zikukukla za msinkhu wa milungu isanu ndi itatu kufika milungu khumi ndi itatu:**

Chakudya chosakanizira	Kuchuluka kwa zakudya zosakaniza		
	Kasakanizidwe koyamba	Kasakanizidwe Kachiwiri	Kasakanizidwe kachitatu
Madeya /gaga wa chimanga	61	53	68
Ufa wa soya	0	3	0
Chiponde cha njere za thonje	20	12	26
Nsomba zogaya	5	6	0
Mafupa ogaya	2	2	2
Phulusa labwino	2	2	2
Dothi lakatondo	2	2	2
Matokoso a mowa	8	20	0
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

- Wonetsansi kuti zakudya izi zasakanizidwa mokwana. Ngati sizisakanizidwa mokwana, nkhumba zina zimadya chakudya chamtundu wina moperewera pamene zina zidya china mochuluka ndi kuyamba kudwala nacho.

## **Phunziro 4: Kuchulukitsa ndi kusamalira nkhumba**

**Zolinga za phunziroli:**

**Pomaliza pa phunziro ili wophunzira athe:**

- 1. Kudziwa zofunika pochulukitsa nkhumba**
- 2. Kudziwa mitundu ya zolembedwa zonse zochitika pakhola la nkhumba**
- 3. Kufotokoza kakweretsedwe ndi kaswanidwe ka nkhumba**
- 4. Kudziwa kasamalidwe ka tonde, mikota ndi ana a nkhumba**
- 5. Kudziwa kachotsedwe ka mano akuthwa a ana ankhumba**
- 6. Kudziwa kathenedwe ka ana amuna ankhumba**

### **Tonde wa nkhumba**

- Tonde wa nkhumba asamakhale m'khola limodzi ndi misoti kapena mikota ya nkhumba.
- Tonde wa nkhumba amayenera kusinthidwa pafupipafupi kuti asakwere ana ndi zidzukulu zake
- Zonse zokhudza tonde zizilembedwa bwino chifukwa zimathandiza kalondolondo wopewa kukwera ana kapena zidzukulu zake

### **Mikota kapena msoti wa nkhumba**

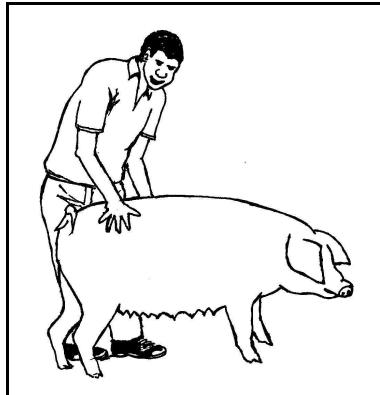
**Yankhani mafunso awa:**

Yenderani makola angapo a nkhumba ndipo muone m'mene akusamalira mikota kapena misoti ya nkhumba ndi m'mene amaonera zizindikiro za kuti zili ndi nyere.

### **Nyere (kufuna mphongo)**

- Nkhumba yaikazi yomwe isanaswepo imatchedwa msoti.
- Msoti umatha msinkhu pakati pa miyezi isanu ndi umodzi. Pamsinkhu uwu, msoti umayamba kusamba. Koma ngati pali zakudya zoperewera, msoti umachedwa kutha msinkhu.
- Ngati msoti sunakwedwe nthawi imene unali ndi nyere ndipo sunatenge bere, umayambano nyere ina pakapita masiku 21 ali wonse.

- Kweretsani misoti ya nkhumba itakhwima ndithu. Musakweretse misoti pamene ichita zionetsero za nyere ziwiri zoyambirira. Msoti ukweretsedwe utakwana miyezi isanu ndi iwiri kapena isanu ndi itatu.
- Zizindikiro za kuti nkhumba yayamba nyere ndi izi:



Kuona zizindikiro za nyere

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

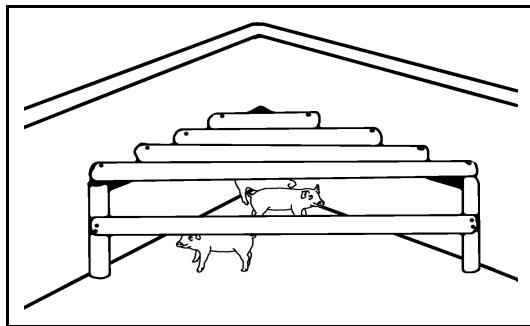
- Kusakhazikika
- Kusafuna kudya
- Kutota (Kutupa) Kumaliseche
- Kutulutsa chikazi choyerwa ngati dzira loyera laliwisi
- Nkhumba ukaigwira mbali zonse za pamsana imaima ndi kuperekera kuonetsa kuti ndi yokonzeka kukwedwa.
- Nyere imatenga pakati pa maora khumi ndi awiri kufika makumi atatu ndi mphambu zisanu ndi imodzi (*12 to 36 hrs*) isanathe
- Msoti kapena mkota ukhoza kuyamba nyere ikamva fungo la tonde. Ngati muona kuti msoti kapena mkota wankhumba suli kukhala ndi nyere, ikanimo tonde mchipinda chogundana ndi cha mkota kapena msoti. Fungo la tondelo limathandiza kuti msoti kapena mkota uyambe nyere. Koma ngati nkhumba sizili kudya bwino, njira iyi singagwire ntchito. Imagwira pokhapokha ngati nkhumba zikudyetsedwa bwino.

## Kukweretsa

- Mukafuna kuti mukweretse nkhumba, mupititse msoti kapena mkota kuchipinda cha tonde; osati kupititsa tonde kuchipinda cha msoti kapena mkota.
- Nkhumba ikweredwe kawiri mcati mwa zizndikiro za nyere. Koyamba ikweredwe patatha maora khumi ndi awiri zizndikiro za nyere zitayamba kuoneka, ndipo ikweredwe kachiwiri patatha maora makumi awiri ndi mphambu zinayi.

## Kusamala nkhumba yabere ndi pamene ikuswa (kubereka)

- Nkhumba imafuna chakudya chabwino chokhala ndi gulu la chakudya chokulitsa (chosachepera 16%), makamaka bere likakula. Koma muonetsetse kuti nkhumba isanenepe kwambiri isanaswe.
- Nkhumba ikabereka timati yaswa
- Msoti kapena mkota wabere sukhazikika ukakhala pang'ono kuswa. Nthawi yoswera sitalirikira maora atatu kapena anai. Kawiri kawiri msoti kapena mkota wa nkhumba sufuna kuthandizidwa pakuswa.
- Ana a nkhumba ayenera kuyamwa mwa nsanga kuti ayamwe mkaka wa chithuwi womwe umateteza ku matenda
- Ndi koyenera kupatula ana ankhumba powaika kwa okha ndi kumawadyetsera padera. Mukhoza kungodula chipinda pokhoma ndawala pakati pa mkota ndi ana.



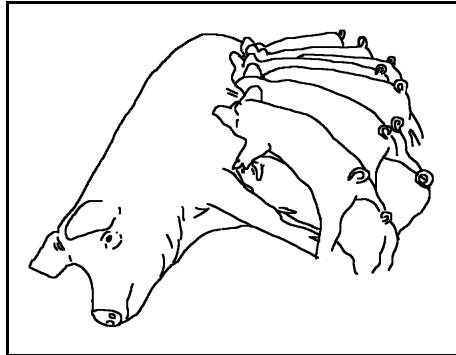
Pokhala ana a nkhumba

## Kusamala ana a nkhumba

### ***Yankhani mafunso awa:***

Yenderani makola a nkhumba ndi kuchotsa mano a ana a nkhumba, kubaya nyereti ya *iron* ndi kuthena ana amuna a nkhumba.

- Ana ankhumba amalimbirana kuyamwa popeza amakhala ambiri. Ana ofoka amayamwa pang'ono ndipo mwina amafa ndi njala. Mawere abwino ndi amene amakhala kufupi ndi miyendo ya mwamba. Mkota wa nkhumba umakhala ndi mawere okwana 12 kufika 14.



Ana a nkhumba oyamwa

- Ana a nkhumba amakhala ndi mano a kuthwa amene ayenera kuchotsedwa ndithu. Ngati manowa sachotsedwa, ana a nkhumba amatha kubvulazana poyamwa. Athanso kubvulaza mawere ndi mphumbu za mawo poyamwa.
- Musachotsere mano pafupi ndi mawo chifukwa amakalipa ndi kukulumani. Pofuna kuteteza ana akewo. Gwiritsano ntchito zida zake zodulira timano tinai timeneti. Tiwiri timamera m'nhama za m'mwamba ndi tiwiri tina timamera m'nhama za m'munsi. Bwezerani ana a nkhumba kwa mawo mukamaliza kudula mano.
- Onetsetsani kuti zida zodulira mano zizikhala za ukhondo nthawi zonse. Muzitsuka zidazi ndi mankhwala ophera tizirombo toyambitsa matenda musanayambe kudula mano akankhumba kena mukamaliza kudula kena.

### Kubaya nyereti ya iron

- Ana a nkhumba zodyetsera m'khola ayenera kubayidwa nyereti ya iron kuti asadwale matenda ochepta magazi. Iron imathandiza kuti magazi apangike okwana m'thupi la nkhumba kuti ikule bwino.
- Bayani nyereti ya iron mwana wa nkhumba ali pa msinkhu wa mulungu umodzi.

### Kuletsera kuyamwa

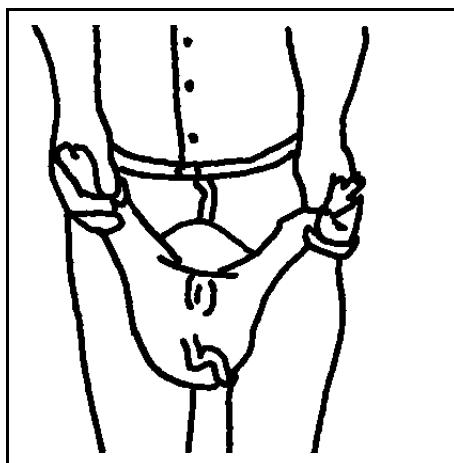
- Ana a nkhumba amayamba kukonda zakudya zolimba akafika pa msinkhu wa mulungu umodzi kapena milungu iwiri. Akafika pa msinkhu umenewu, ana ankhumba azipatsidwa zakudya zolimba kuonjezera pa kuyamwa. Ana akhoza kuyamwa mpaka atafika pa msinkhu wa milungu 6 mpaka 8. Ana a nkhumba aletsedwe kuyamwa pang'onopang'ono osati mwadzidzidzi; ndipo panthawiyi pafunika kuonjezera chakudya cholimba. Letsani pamene ana akudya cha kudya cholimba chambiri.

### Kusankha ana a mbewu

- Ana a nkhumba a bwino asungidwe kuti akhale a mbewu. Ana a nkhumba omwe asankhidwa kuti akhale a mbewu akhale amene akukula mwansanga, athanzi, ndi opanda chilema chilichonse.

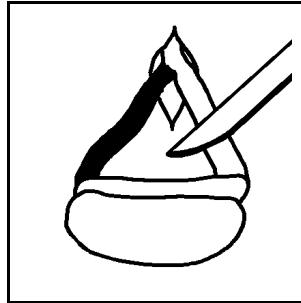
## Kuthena nkhumba za mphongo

- Thenani ana a nkhumba amuna ngati sali ofunika kuti akhale a mbewu. Atonde akachuluka m'khola amamenyana. Mitheno ndi yosabvuta kusamala chifukwa imafatsa. Koma nyama ya a tonde imakhala ndi kafungo ka mkumbudzulu, ndiye anthu saikonda kwenikweni.
- Atonde ayenera kuthenedwa atafika pa msinkhu wa pakati pa milungu iwiri ndi itatu asanaleke kuyamwa. Tonde akathenedwa atakula pamakhala kutaika kwamagazi ambiri ndiponso chironda chimabvuta kupola chifukwa pamalowa tizirombo tonyeketsa chironda.



Kagwiridwe ka tonde wa nkhumba pothena

- Mpofunika kuthena ana a nkhumba nthawi ya kum'mawa pamene kuli kuzizira ndinso pamene kumavallo sikukupita magazi ambiri nthawi imeneyi.
- Patulani a tonde amene akufunika kuthenedwa kwa a mawo ndi kugwira monga m'mene taonetsera pa chithunzi pamwambapa.
- Pothena, gwiritsani ntchito lumo kapena mpeni wakuthwa kwambiri. Osagwiritsa ntchito zida zobuntha chifukwa mutha kupweteka nkhumba ndi kuyambitsa chironda chonyeka.
- Poyamba tsukani kumabvalo ndi sopo ndi madzi ndi kupukuta bwinobwino. Kenaka pakani mankhwala ophera tizirombo toyambitsa matenda monga ngati *Iodine*.
- Gwirani pansi pa tchende ndi chala chachikulu ndi cha mkomba phala ndi kung'amba khungu la mabvalo kuti tchende lituluke mosabvuta.
- Kokani tchende pong'onopang'ono ndi kudula mtsempha. Koma osadula mtsempha wa magazi.

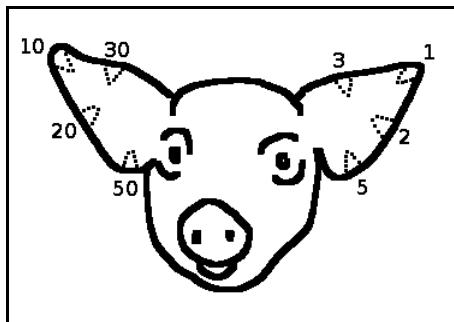


Dulani mtsempha woyerawo

- Kokani tchende ndi kulizunguza kangapo. Izi zipangitsa kuti magazi asabwere ambiri mu mtsempha wa magazi. Dulani mtsempha wa magazi pochita momapala ndi lumo kapena mpeni. Osadula mtsempha wa magazi pokoka ayi chifukwa nkhumba itha kutaya magazi ambiri.
- Onetsetsani kuti nthawi zonse pakhale ukhondo wokwana pothena nkhumba polewa kuluwetsa tizirombo toyambitsa matenda pabalapo. Osamagwirapo kapena kuikapo kanthu kena kali konse pabalapo.
- Chotsani tchende linalo mwanjira yomweyi.
- Thirani pabala mankhwala a iodine kapena Stockholm tar.
- Bwezerani kankhumba kothenedwako kwa make mwansanga. Kayendereni ndi kuzonda bala la kumabvalo lija ngati lanyeka kapena ayi pakatha mulungu umodzi. Bala likanyeka nkhumba imalephera kuyenda mwinanso imapunduka. Ngati bala lathukushila, libooleni ndi kampeni ndi kufinya mafinyawo kuti lipole.

### Kucheka makutu pofuna kuzindikira nkhumba

- Kucheka makutu a nkhumba ndi njira imodzi yoika chizindikiro chosyanitsa nkhumba ina ku nkhumba inzake maka zikhala zambiri. Njira iyi imathandiza pamene mlimi akusunga zolemba za kasamalidwe ka nkhumba zake.
- Mutha kucheka makutu pamene nkhumba ili pa msinkhu wa pakati pa tsiku limodzi ndi masiku atatu. Mukhoza kugwairitsa ntchito chizola (scissors)ya kuthwa kwambiri. Komanso pali chida chogwirira ntchito imeneyi chomwe chingagulidwe kumasitolo osunga zida za ziweto.
- Thirani mankhwala ophera tirombo toyambitsa matenda pamalo pamene pachekedwapo.
- A bungwe la SSLPP amapereka ma nambala a mocekamo monga m'mene taonetsera pachithunzipa. (Ena amapereka ma nambala mosiyana siyana)

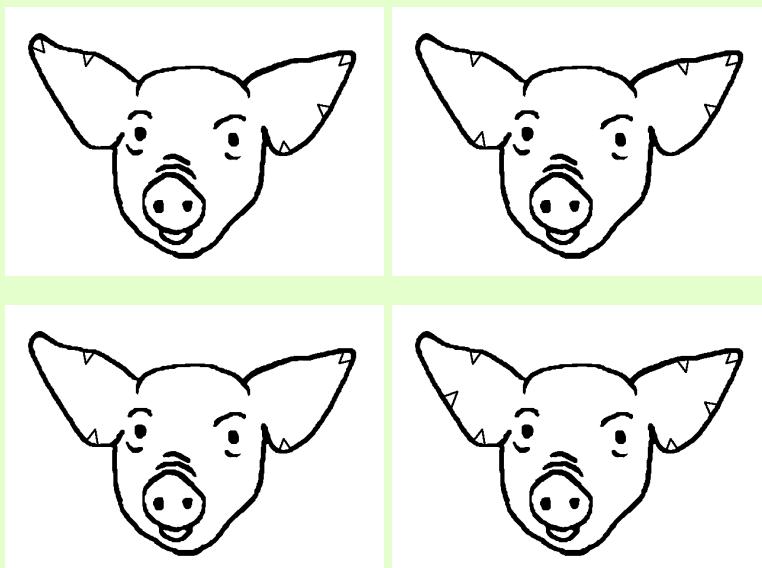


Kachekedwe ka makutu ndi ma nambala ake

- Kuti mudziwe nambala ya nkhumba, muonkhetse manambala onse a mochekamo. Chitsanzo, zocheka za khutu la kumanja pachithunzipa, zikhoza kuonetsa nambala kuchokera pa 1 kufika pa 11. Kukhutu la kumanzereri kukuonetsa nambala za m'makumi kuyambira pa 10 kufika 110. Njira iyi itha kuonetsa manambala kuchokera pa 1 kulekeza pa 121.

#### **Yankhani mafunso awa:**

Kodi ndi manambala ati amene mungaike m'makutu ocheckedwa monga aliri pazithunzi zili m'munsizi?



## **Phunziro 5: Matenda ogwira nkhumba**

**Zolinga za phunziroli:**

**Pomaliza pa phunziro ili wophunzira athe:**

- 1. Kudziwa za matenda odziwika bwino omwe amagwira nkhumba**
- 2. Kufotokoza zizindikiro za matenda, katetezedwe kamatenda ndi kachizidwe kamatenda omwe amagwira nkhumba**

### **Nfundu zoyenera kuzidziwa**

- Mwa ana a nkhumba amene abadwa, sipalephera kukhala tina tolephera kukula bwino. Tinkhumba tolephera kukula bwino amatitcha kuti ndi mikung'ung'u.
- Zizindikiro zina zoti nkhumba sizili kupeza bwino ndi kuonda ndi kumadziluma michira.
- Nthawi zina matenda oopsya aja amagwiranso ng'ombe amene amaonetsa zizindikiro za zironda za mkamwa ndi mziboda, amathanso kugwira nkhumba. Ngati muona kuti nkhumba zili kuonetsa zizindikiro za matenda achilendo, uzani alangizi aza ziweto msanga.

## Tizirombo toyambitsa matenda tokhala m'thupi la nkhumba

<b>Tizirombo tokhala m'thupi</b>	Ndemanga
Choyambitsa	Pali njoka za m'mimba zosiyanasiyana za nkhumba
Zizindikiro	<p>Njoka za m'mimba zimayambitsa mpwerere, kupinimbira ndi kupha nkhumba. Zimaononga ziwalo za m'kati kuphatikizapo matumbo, chiwindi ndi impsy.</p> <p>Anthu atha kutenga njoka za m'mimba kuchokera kunyama yankhumba yomwe sanaphike mokwana.</p>
Katetezedwe	<p>Nkhumba zodyetsera m'khola sizikhala ndi njoka za m'mimba kwenikweni.</p> <p>Musanaike nkhumba m'khola lanu, muziyamba mwalisamala kuti likhale la ukhondo.</p> <p>Perekani mankhwala ophera njoka za m'mimba kwa nkhumba imene isanaswe kuti isapatsire ana ake atabadwa.</p>
Kuchiza	<p>Pali mankhwala amene amapha njoka za m'mimba. Ena mwa mankhwalawa amaphatikizidwa mchakudya, ena ndi womwetsa pamene ena ndi wobaya. Ena mwa mankhwalawa ndi awa:</p> <ul style="list-style-type: none"> <li>• <i>Levamisole</i> - wothira mchakudya kapena m'madzi</li> <li>• <i>Albendazole, fenbendazole</i>, kapena <i>parbendazol</i> - awa ndi omwetsa kapena kuika ku chakudya</li> <li>• <i>Morantel citrate</i> - womwetsa</li> <li>• <i>Ivermectin</i> - wobaya</li> <li>• <i>Piperazine</i> - womwetsa</li> </ul>

## Tizirombo topezeka kunja kwa thupi la nkhumba

- Tizirombo tomwe timakhala kunja kwa m'thupi la nkhumba ndi kumayambitsa matenda ndi monga nthata, nsabwe, utitiri ndi nkupakupa.

Mkupe	Ndemanga
Choyambitsa	Mkupe umayambika chifukwa cha utitiri omwe umaluma ndi kulowa m'khungu la nkhumba zomwe zimapangitsa kuti kuchiza kukhale kobvuta.
Zizindikiro	Matenda a mkupe amapangitsa kuti nkhumba imve kunyerenyesa kwambiri ndipo imadzikanditsa kuchikupa ndi kumitengo ndi ku zina zotero. Chikopa chimalimba ndi kukwinyika pamalo pamene pagwidwa kwambiri.
Katetezedwe	Patulani nkhumba zonse zomwe zagwidwa ndi matendawa kuti zisapatisre zinzake.
Kuchiza	Kubaya mankhwala a <i>ivermectin</i> ndi kusambitsa nkhumba ndi dibi monga wa <i>amitraz</i>

Nsabwe	Ndemanga
Choyambitsa	Nsabwe ndi zazikulu zoti zitha kuoneka zikamayenda pakhungu la nkhumba
Zizindikiro	Zimapangitsa kuti nkhumba zizikanda koma osati ngati kwa mkupe ayi.
Katetezedwe	
Kuchiza	Nsabwe zimafa powaza mankhwala ophera tizirombo monga a <i>malathion</i> kapena <i>coumaphos</i>

<b>Nkhupa kupa</b>	<b>Ndemanga</b>
Choyambitsa	Nkhupakupa zimaoneka ngati nsabwe koma siziwendayenda mpathupi.
Zizindikiro	Nkhupakupa zazikuluzikulu zimayamwa magazi zikaluma pakhungu.
Katetezedwe	Nkhupakupa sizipezeka kwenikweni ku nkhumba zodyetsera m'khola.
Kuchiza	Nkhupakupa zimafa pamene nkhumba zasambitsidwa dibi monga <i>amiltraz</i> . Nkhupakupa zikhoza kufa poziwaza mafuta a nyali ngati pali imodzi imodzi kapena kuzitentha ndi khala lamoto ndi phulusa la moto.

## Matenda woyambitsidwa ndi tizirombo tosaoneka ndi maso (germs)

<b>Chigodola cha nkhumba</b>	Awa ndi matenda oopsywa kwambiri kunkhumba muno m' Malawi. Matenda amenewa akagwa m'boma amafala ndi kupha nkhumba zambiri mofulumira. Matendawa amafalitsidwa kudzela kunkhumba zamoyo ndi nyama ya nkhumba yomwe imadwala matendawa. Ngati mukuganizira kuti kwagwa matenda a chigodola cha nkhumba m'dera lanulo, <b>kaneneni kwa alangizi a za ziweto msanga.</b>
Choyambitsa	Matenda amenewa kamayambitsa ndi kachirombo kamtundu wa virus kamene kama fala kukhola munjira izi: <ul style="list-style-type: none"> <li>• Nkhumba zamoyo</li> <li>• Nyama ya nkhumba</li> <li>• Anthu amene anafika pakhola pamene pagwa matendawa</li> <li>• Chakudya ndi nyeneswa</li> <li>• Ziwiya za pakhola monga zitini, madengu, makasu ndi zina zotero.</li> </ul>
Zizindikiro	Nkhumba zambiri zimafa m'masiku wochepa akayamba matendawa.
Kuteteza	Palibe katemera woteteza chigodola cha nkhumba Njira yotetezera ndi kutsekera ndi kudyetsera nkhumba m'khola ndinso osalola anthu kumalowa m'khola, kapena kubweretsa ziwiya zina zimene zinali kukhola la nkhumba zina. Ngati kwagwa chigodola m'boma lanu kapena m'boma loyandikana nalo, tsatani njira zithandiza kuteteza: <ul style="list-style-type: none"> <li>• Musalole nkhumba zina za moyo kuyandikira kukhola lanu</li> <li>• Musatengere nkhumba zamoyo kwina kapena kulola ena kutenga nkhumba zamoyo kuchokera kwina kubweretsa ngakhale kufupi ndi kumudzi kwanu.</li> <li>• Musalore munthu kubweretsa nyama yankhumba kufupi ndi kumudzi kwanu.</li> <li>• Musakatenge chakudya cha nkhumba kuchokera kudera limene kwagwa mliriwu</li> <li>• Musalole anthu ochokera kunja kwa mudzi wanu kufika kufupi ndi khola lanu la nkhumba.</li> <li>• Muonetsetse kuti antchito anu asachokere kumene ena akuweta nkhumba; onetsetsani kuti nawonso asamawete nkhumba.</li> </ul>
Kuchiza	Kulibe mankhwala achizira chigodola cha nkhumba. Ngati wina adzakuuzani kuti ali ndi mankhwala ochizira chigodola cha nkhumba, akungokunamizani.

<b>Erysipelas</b>	Matendawa si achilendo ku nkhumba
Choyambitsa	Matenda a mtundu wa <b>Erysipelas</b> kamayambitsa ndi kachirombo ka <b>bacteria</b> kamene kamafalikira kuchokera kunkhumba zodwala matendawa.
Zizindikiro zake	Matendawa amapha nkhumba kapena nkhumba imalowa mchala ndi matendawa kupangitsa kuti ulimi wankhumba ulowe pansi. Nthawi zina matendawa amapangitsa tintu tooneka ngati daimoni tiri ta mtambo m'maonekedwe ake pakhungu.
Kuteteza	Zipatseni mankhwala nkhumba zonse zodwala. Pali katemera amene mungatemere nkhumba pofuna kuziteteza kumatendawa.
kuchiza	Nkhumba zitha kuchira mutazipatsa mankhwala a mtundu wa <i>penicillin</i> koma isanadwale kwambiri.

<b>Mpwerere</b>	
Choyambitsa	Mpwerere umayambika chifukwa cha tizirombo tosaoneka ndi maso kapena kusasamala kawetedwe ka nkhumba.
Zizindikiro zake	Mpwerere ndi kufooka. Ana a nkhumba atha kufa matendawa akakula.
Kuteteza	Chisamaliro chabwino, kuletsera kuyamwa pa msinkhu woyenera.
Kuchiza	Nkhumba zipatsidwe mankhwala woonjezera madzi m'thupi. Awa amathandiza kubwezera madzi omwe atayika pamene nkhumba ikutsekula m'mimba.  Nkhumba imwetsedwe mankhwala otchedwa <i>kaolin</i> kapena <i>bentonite</i>  Mutha kumwetsa nkhumba mankhwala ophera tizirombo tosaoneka ndi maso ta mtundu wa <i>bacteria</i> amene sangakhale wothandiza ngati mpwerere wayambika chifukwa cha kachirombo ka mtundu wa <i>virus</i> kapena chifukwa cha zakudya zina.

## **Mafunso apomaliza pa maphunziro a gawo**

1. Kodi ndi chifukwa chiyani kawetedwe kankhumba kongotayira ndi kosaloledwa muno m' Malawi?
2. Kodi mkota wa nkhumba ndi ana ake umafuna malo akulu bwanji m'khola?
3. Kodi ndi magulu ati a chakudya amene ndi ofunika pa kukulitsa ndi thanzi la nkhumba?
4. Tchulani mtundu wa zakudya kumene kumachokera gulu lopatsa mphamvu.
5. Tchulani mtundu wa zakudya kumene kumachokera gulu lokulitsa.
6. Kodi msoti wa nkhumba umantha msinkhu pa msinkhu wanji?  
  
Nanga ndi pamsinkhu uti woti msoti wankhumba ukhoza kukweretsedwa?
7. Kodi zizindikiro zoti nkhumba yayamba nyere ndi ziti?
8. Ndi chifukwa chiyani timachotsa timano tinai takuthwa ta ana a nkhumba?
9. Ndi chifukwa chiyani timathena a tonde a nkhumba
10. Ndi pamsinkhu uti wa nkhumba umene:  
Mumachotsera timano tinai takuthwa?  
Mumathenera tonde?  
Mumaletsera kuyamwa?
11. Kodi mkung'ung'u ndi chiyani?
12. Kodi titha kuteteza bwanji njoka za m'mimba ku nkhumba?
13. Kodi tikhoza kuchiritsa bwanji matenda a mkupe?
14. Kodi ndi zinthu ziti zimene muyenera kuchita ngati m'boma lanu mwagwa matenda a chigodola chankhumba?
15. Kodi mukhoza kuteteza bwanji matenda a chigodola kuti asafalikire ku nkhumba zanu?