



**NUTRI** FEEDS

*The Formula For Success*



**IFYA KWAAFWA UKUTEKA INKOKO**

# Ukutampa Ukuteeka Utwana twa Nkoko sha Loni

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Ukusunga bwino utwana twa nkoko sha loni pa nshiku 7 isha kubalilapo kwalicindama sana pantu e cikapima ifyo ubumi ubwshalako buli no kuba elyo ne fyo utukoko tukakula. Ubufwayo ubukalamba pali iyi nshita ya kutukusha bwa kumona ukutula twakula bwino ukwabula ukucilana ukutampa fye ilyo tucili utwana.

Ukukanshika kwacilamo pa nshiku 7 panuma ya kutootwa kuti kwalenga utukoko ukwingililwa bwangu ku malwele, ukufwa elyo na mafya ya kupusana-pusana mu kukula. Utwana twa nkoko tushintilila fye pa uletukusha pa kumona ukutula umo tulekulila muli bwino kabili umwabula ubwafya. Ubufwayo bwa ici icipande bwa kubebeta mu kusakamanishisha ifya kusunga bwino utwana twa nkoko ilyo tuli utunono ukupitila mu fintu ifikankaala 7:

1. Amenshi
2. Ifyakulya
3. Icikabilila mu citele no mutonshi
4. Ulubuuto
5. Ubwingi bwa tukoko
6. Ifya kubiika panshi
7. Umwa kupitila umwela

**Icikope 1:** Ifya kupanga umwa kwikala utwana twa nkoko elyo panshiponse fye kufimbapo amapepala elyo na fya kuliilamo ne fya kunwenamo amenshi ifyafuililako pakutula utwana tutampe bwino imikulile



## Amenshi

Cikankaala sana ukukwata amenshi aya busaka, ayapya aya kunwa utwana twa nkoko pakutula tulekula bwino sana. Nga cakutula tatulenwa sana amenshi mu nshiku ishinono isha kubalilapo teti tukwate amenshi mu mubili kabili kuti twakwata amafya, ukusanshako ukukanalinga pa kukula elyo no kufwa sana ilyo tuleya tulekula.

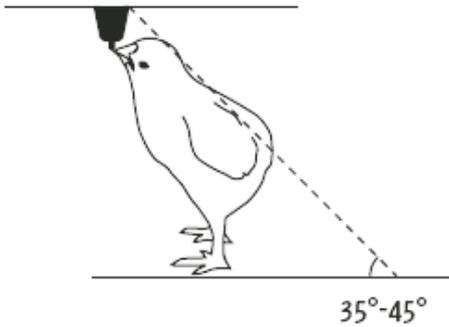
### Ifya kunwenamo ifyafuililako

Cisuma ukukwata ifya kunwenamo ifyafuililako (pamo nga imilimba nangu utwa kunwenamo utunono) ilyo utwana tucili utunono-nangu ni lintu mulebomfya filya ifyakwata uto inkoko shonkako amenshi. (**Icikope 1**) Ilyo mwabikamo na imilimba nangu utwa kunwenamo utunono tumbi, mufwile mwabikamo ica kunwenamo ica bukulu bwa galoni imo (amalita 4) ica kunwamo utukoko 60 pa nshiku sha kubalilapo shitatu ukufika kuli 7. Inshita ifya kunwenamo ifyalundwako fili no kwikalamo cikaba fye ne fyo utukoko tuli, ku cakumwenako, nalimo ifya kunwenamo kuti fyakokolamo nga cakutula utukoko twalichelwa ukutampa ukunwa amenshi. Mufwile ukubikamo amenshi ayapya libili-libili mu fya kunwenamo ifyalundwako elyo no kulafisamfya lyonse pakutula tafingililwe no tushishi utuleta amalwele nangu ifsooso. Fiwile ukuteekwa bwino pakati ka fya kuliilamo kabili ifishasansama pakutula utwana twa nkoko tulekwanisha ukunwamo ilyo twafika fye (nga filya mulemona mu **Icikope 1**) Mufwile ukubiika ifya kunwenamo apakutula utwana twa nkoko tatufwile ukwenda ukucila pali 1 mita (amafti 3.3) pakutula tufike ku menshi pa nsa 24 isha kubalilapo. Cisuma ukukwata amenshi ayapya, ayasuma, aya busaka kabili ayashatalalisha nangu ukukabisha pakutula utwana twa nkoko tutampe ukukula bwino. Mwilapeela utukoko amenshi ayatalala pantu kuti yalenga twaingililwa ne mpepo, nalyo line, amenshi tayalingile ukucila pa madigiri 20°C (amadigiri 68°F)

### Ifya kunwenamo ifyakwata uto inkoko shonkako amenshi

Ifya kunwenamo ifyakwata uto inkoko shonkako amenshi fifwile ukusansuka ukulingana na pabela amenshi ya tukoko pa nsa 24-28 isha kubalilapo. Pa nshiku sha kubalilapo shibili nangu shitatu amenshi yafwile ukulatona fye 'akalitoni' pakutila utukoko tumone. Elyo panuma ya ifyo, ilingi line pa bushiku bwalenga 3 nangu 4, ica kunwenamo icakwata uto inkoko shonkako amenshi cifwile ukubiikwa apo akakoko kengatongomona fye umukoshi apasulama madigiri 45 ukulingana ku mutwe wa kakoko. **(Icikope 2)**

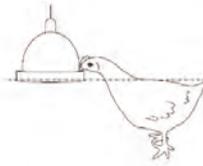
**Icikope 2:** Ifyo ica kunwenamo icakwata uto inkoko shonkako amenshi cifwile ukusansuka.



### Ifya kunwenamo ifyapala inyenjele

Nga mulebomfya ifya kunwenamo ifyapala inyenjele, amenshi yafwile ukwisula ukufika ku milomo ya ca kunwenamo pa nsa 24 ukufika kuli 72 isha kubalilapo. Panuma ya ifyo cefyeniko amenshi ukufika ku kushika kwa 19mm (amaincheshi 0.75)-nga kutunganya kuti twatila ukushika ukufika ku cipimo ca munwe wa pakati. Cilya icibamo amenshi cilinganyeni ne numa ya kakoko ukufikila twakumanya inshiku 7. **(Icikope 3)** Amenshi tayafwile ukulafuma ayengi kabili amenshi yafwile ukulafuma ukwabula ukuyapumfyanza. Ilyo mwabika, moneni ifyo cili panuma ya nsa shibili ukufika kuli shitatu pantu utukoko tukapasanganya ifya kunyantapo. Linganyeni ifya kunwenamo ukulingana ne fyo ifya kunyantapo fli.

**Icikope 3:** Ukusansuka kwa fya kunwenamo ifyapala inyenjele.



Ubwikalito bwa ca kunwenamo bufwile ukulingana na pabelele inuma ya nkoko

Ifya kunwenamo amenshi ifikabelelela fifwile ukubamo kale-kale ilyo mulebikamo utukoko. Ukucinja panono-panono ukwa kutila utukoko tutampe ukunwa uli ifi ifya kunwenamo ifibelelela kufwile ukutampa pa bushiku bwa kubalilapo no kwisapwa ukushinguluka pa nshita ya bushiku ubwa 21. Cisuma ukutila amenshi baleyapima libili-libili ukumona ubwingi bwa tushishi utulimo na fimbi ifisangwamo.

### **Ifyakulya**

Ifyakulya fya kutampilapo (starter feed) fifwile ukulabiikwa mu mbale shaselebala mpaka utukoko twafisha inshiku 5-7. Imbale yaselebala imo-imo ifwile ukulalyamo utukoko 60. Mwilaisushisha ifyakulya mu mbale pantu kuti calenga ifyakulya ukonaika. Ifyakulya fya kutampilapo fifwile ukuba ifisuma mu mimonekele; bomfyeni ifyashonaulwa bwino nangu utubulukushi twa fyakulya ifyo banyunga. Kuti cawama ukubikapo amapepala, ayafimba panshi ponse (Icikope 4) lelo ukukanacepako pali 25% iya fya kubiika panshi apa kukushisha utukoko apo ifyakulya fyingabiikwa mu kulungatika. Cisuma sana ukubomfya amapepa ukufimba panshi pakutila utukoko tatulelya ifyakubiika panshi pantu ici kuti calenga tatulekula bwino. Ukupeela utukoko ifyakulya ifinono pa miku iyafuililako kulalenga utukoko ukucincimuka.

Ukubiika ifyakuliilamo pamuulu wa fya kubiika panshi ukufuma pa bushiku bwa kubalilapo ukushininkisha ukutila nacanguka ku tukoko ukufika apali ifyakulya cikalenga ukutila ifintu fyonse nga fli bwino utukoko tuli no kwishiba ukulya mu fyakuliilamo ifibelelela lilya imbale ishaselebala mwashifumyamo. Ilingi line ici cicitika nga twafika pepi-pepi ne nshiku 5-7.

**Icikope 4:** Ifimoneka incende ya kukushishamo utukoko no tubulukushi twa fyakulya utwanyungwa elyo panshi ponse nabafimbapo amapepala.



### **Ukukaba/Ukotalala no Mutonshi**

Imibombebe ya kukontolola ukukaba no kotalala mu mubili wa kakoko tailunduluka sana mpaka kafisha imilungu ibili. Kanshi, akakoko kashintilila sana pafya kukafya pakutila kasungilila cikabilila ca mubili icalinga.

#### Ukukaba/ukotala kwa fya kubiika panshi

Ifya kubiika panshi fifwile ukuba no kukaba nangu ukotalala ukwalinga pakutila utukoko tutampe bwino ukukula. Ilyo tuli no bushiku bumo utukoko tukabila icikabilila icafika kuli 86°F (32°C) no mutonshi wa mapesenti 60-70% pa ciimo ca tukoko, elyo ifya kubiika panshi fifwile ukuba ne cikabilila ca 82°F - 86°F (28-30°C). Nga cakutila utukoko twiminine pa fya kubiika panshi ifyakaba pa madigiri ayacepako pali 82°F (ukucepako pali 28°C) kuti twaingililwa ne mpepo ku makasa. Nga cakutila ifya kubiika panshi nafibomba, kuti fyalenga utukoko ukwingililwa ne mpepo kanshi tafifwile ukuba ifyabomba. Mufwile ukubiika ifya kupiminako ukukaba no kotalala pa ciimo ca tukoko mu citele monse pakutila mulemona ukukaba no kotalala ukwa mu ncende muteekele utukoko.

#### Ukukafya incende shimo-shimo

Ukukafya incende shimo-shimo, icitele mufwile ukucikafya pa nsa 24 ilyo tamulaletamo utukoko. Ukubomfya ifya kucingilila kulalenga icikabilila ca fya kubiika panshi ukulingana kabili ifya kucingilila kuti fyabomba bwino ukucilikila utukoko pakutila tatulelulumba.

Nga mulebomfya inshila ya kukafya incende shimo-shimo, cikankaala sana ukukontolola icikabilila. Nga cakutila mwalibikamo ifya kucingilila elyo tamulekontolola bwino icikabilila utukoko kuti twaumfwa sana ukukaba pantu teti twende no kufumako ku ncende ukukabile sana. Ilyo utukoko tuleya tulekula (ukufuma pa bushiku bwalenga 3 ukuya ku ntanshi) kuti muleya mulekusha incende ya kukafya kabili mu kuya kwa nshita kuti mwafumyapo ifya kucingilila pa nshita ya bushiku bwalenga 14. Ukupusana-pusana kwa cikabilila mu citele pali iyi nshita kulalenga utukoko ukukontolola icikabilila ca mubili wa tuko ukupitila mu kupalama nangu ukotaluka ku cikabilila.

#### Ukukafya icitele conse

Nga mulebomfya ifya kukafya (intulo sha cikabilila) pa kukafya icitele conse, cilafya ukukafya panshi ponse ukutila pabe ne cikabilila icalinga. Nga mulebomfya uyu musango wa kukafya, mufwile ukukafya icitele pa nsa 48 ilyo tamulaletamo utukoko pakutila ifya kubiika panshi fikwate icikabilila icalinga. Mufwile ukupoosako amano nga mulebomfya ifya kucingilila no kumona ukutila ukulepa kwa fiko takulecilikila umwela ne cikabilila ilyo mulekafya icitele conse.

#### Ukupeela icikabilila

Cikankaala sana ukupeela utukoko icikabilila icalinga. Mukwai konkeni ifya kutungulula ifili panshi.

### **UKUKAFYA ICIPIMO CA CIKABILILA ICALINGA**

UMUSHINKU (UBUSHIKU)	°C
1	32°C
3	31°C
5	30°C
7	29°C
9	28°C
11	26°C
13	24°C
15	23°C

Umutonshi pali 60-70%  
Shininkisheni ukutila ilyo mulesunga utukoko ne cikabilila, mwaleka no mwela uwa busaka, uwatalala uleingila mu citele.

### Imicitile ya tukoko

Mufwile ukupoosako amano ukumona ifyo utukoko tucita mu nsa 24 panuma ya kutubiika mu citele. Nga papita insa imo nangu shibili, cikamoneka nga cakutila icikabilila cili fye bwino panshi palya tuli (**Ifikope 5 na 6**).

Nga cakutila camoneka kwati icikabilila tacili bwino mufwile ukwalula ifya kukafya. Tamufwile ukuba imilale.

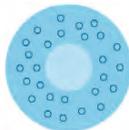
**Icikope 5:** Ifyo utukoko tucita ilyo kuli ukukafya incende shimo-shimo.

**Icikabilila cacilamo**



Utukoko tatukafya icongo  
Utukoko tulapeemashika  
Tulakonteka umutwe no  
kuponya amapindo  
Tulataluka ku ca kukafya

**Icikabilila cili fye bwino**



Utukoko tulasalangana  
Tulakafya icongo ukulanga  
ukutila tuleumfwa bwino

**Icikabilila cacepesha**



Utukoko tulapalama ku ca kukafya  
Tulakafya icongo ukufwaya  
ubwafwilisho

**Imilale**



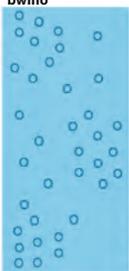
Nga tuli ifi mufwile ukufwalisha  
Kufwile kuli imilale –  
Ulubuuto talulefika cimo cine  
konse – Icongo ukufuma kunse

**Icikope 6:** Ifyo utukoko tucita nga kuli ukukafya icitele conse.

**Icikabilila cacilamo**



**Icikabilila cili fye bwino**



**Icikabilila cacepesha**



Utukoko nga natukaba kabili tuleumfwa bwino, tulalya, ukunwa, no kusalanganana mu mabumba-mabumba. Nga cakutila ifya kunyantapo nafibomba, amakasa yakatalala bwangu kabili utukoko nga twaumfwa impepo tukakolongana pamo mwi bumba ilikalamba. Tukafwaya apakabile kabili nga twapasanga, epo tukekalilila ukwabula no kulaya mu kulya nangu mu kunwa amenshi, ne ci kuti calenga twafwa ku nsala.

### **Ulubuuto**

Cikankaala sana ukubikamo icipimo icalinga ica lubuuto kabili ululefika konse-konse mu citele ne ci cikalenga utukoko tulemona pakutila tulelya no kunwa amenshi. Pa nshiku sha kubalilapo 7, ulubuuto lufwile ukubamo pa nsa 23 cila bushiku elyo ukuluma kwa lubuuto mu citele kufwile ukuba 1 futu ukufuma pa ntulo ya lubuuto (10 lux). Mu ncende umuli utukoko ukuluma kwa lubuuto pa kubala ukufika ku mafutu 10 ukufuma pa ntulo ya lubuuto (100 lux) kuti lwabomfiwa pa kutila utukoko tube utwacincimuka.

Ukufuma pa bushiku bwa 8 ukufika pa bushiku bwalenga 21 mufwile mulefitako pa nsa 4-6 pakutila iflundwa fya mukati filunduluke, e kutila umutima na bapwapwa.

Ukufuma pa bushiku ubwalenga 22 cefyeniko inshita ya mfifi ileba fye insa shitatu pa bushiku bumo  
Pa bushiku ubwalenga 23 cefyeniko inshita ya mfifi ileba insa shibili pa bushiku bumo  
Pa bushiku ubwalenga 24 ukufika ilyo mukashitisha inshita ya mfifi ifwile ukulaba insa imo

### **Ubwingi**

Ifyakonkapo fya kwafwa fye. Ubushiku bwa 1 ukufika kuli 3 utukoko 40 pali sikweya mita imo Ubushiku bwa 4 ukufika kuli 6 utukoko 30 pali sikweya mita imo Ubushiku bwa 7 ukufika kuli 9 utukoko 20 pali sikweya mita imo Ubushiku bwa 10 ukufika kuli 15 utukoko 15 pali sikweya mita imo Ubushiku bwa 21 ukucepako pa tukoko 10 pali sikweya mita imo Mu mpepo mulekafya ukufika ku nshiku 21 kabili nge cikabilila cilesuminisha, elyo mu lusuba inshiku 15.

Ifili pamuulu fya kwafwa fye. Ifi ifya kwafwa fya kubomfya fye mu myeshi ya lusuba. Mu myeshi ya mpepo mufwile ukukafya ukufika ku nshiku 21 ukushintilila pa fyo kutalele mu kasuba ne nshita sha bushiku ne fyo utukoko tulecita mu citele. Ubwingi mbabula bukashintilila pa bukulu bwa shiko. Nga mulebomfya imbabula ishinono mufwile mwakwata ishingi elyo nga mulebomfya ishikulu mufwile mwakwata ishinono. Mukwai kuti mwamona pa cikabilila icalinga pe bula 4. Icilabilila icilangililwe ca mu nshita ya mu lusuba. Mu nshita ya mpepo lundeniko 5.0C ku cikabilila icilangililwe cila bushiku.

### **Ifya Kubiika Panshi**

Ilyo tamulaleta utukoko, bikeni ifya kubiika panshi ifya mutika ukufika ku mainchesi 2-4 (amasentimita 5-10) ifya busaka, ifyauma. Balya ababikila utukoko ifyakulya panshi, bafwile ukubomfya ifya kubiika panshi ifya mutika ukufika ku mainchesi 2 (amasentimita 5). Filya bapala ku mbao ishishakosa filabomba bwino nge fya kubiika panshi pantu filonka umutonshi. Cisuma ukukwata umwa kwingilila umwela pakutila ifya kubiika panshi tafilebomba, makamaka mu nshita ya mpepo (moneni icipande cikonkelepo icilelanda pa umwa kupitila umwela).

Mulebebeta ifya kubiika panshi ukumona nga nafikwata umuti wa tushishi, bundebunde nangu utubowa twa ku cimuti (Aspergillus). Umuti wa tushishi kuti waonaula amabu ne mfyo kabili kuti waikalila mu micincili na mu mafuta. Utubowa twa ku cimuti tulafumya utunsandesande mu mwela utuleta amalwele, ukutusa no kufwa nga cakutila utukoko twapeema uyo mwela.

### **Umwa Kupitila Umwela**

Cikankaala sana ukutula utukoko tulekwata umwela uusuma. Ukukwata umwa kupitila umwela pa nshita utukoko tulekula cifwile calenga umwela uusuma uwa pakutila muleba umwela wa oksijini no kufumya umutonshi uushilefwaikwa no mwela uwingalenga ubwafya - ukwabula ukulenga utukoko ukwingililwa ne mpepo. Iyi nshila e nshila yayanguka iya kulenga umwela ukulaipitila. Te mulandu ne fyo panse pakabile atemwa ukutalala, calicindama ukutula

mu citele mulepita umwela pa nshita iyalinga ilyo muli utukoko.

Te kwesha ukuleka umwela uwatalala ukufuma kunse ukupuupa pa tukoko mu kulungatika. Icafwa sana mu kukwata umwela kuleka umwela umbi ulefuma pakutila umwela uleingila ponce apo ufwile ukwingilila pa musenselo uwalinga (ukufumyamo umwela uwingi) (pakutila uleibalilapo ukusaakana no uli mu citele pa muulu ukucila ukutula ulepuupa u kulungatika pa tukoko no kulenga twaingililwa ne mpepo) kabili ponce apa kwingilila pa musenselo umu wine (pakutila umwela uleingila uwalingana). Pakutila cibe ifi, icitele tacifwile ukulaingisha umwela lelo cifwile ukukwata apa kwingilila umwela bu ncende shimo-shimo monse mu butali bwa citele. Nga kwaba ukubombelapo bwino, umwela uwatalala uwa panse kuti waingila mu citele pa musenselo uwalinga no bwingi ubwalinga pakutila usaakane no mwela uwakaba uuli mu citele pa muulu wa tukoko.

### **Ica Kupiminako Ukubomba Bwino**

Ica kupiminako nga cakutula namukusha bwino utukoko kutonya icibukulo. Ubufwayo bwa kukwata icibukulo icaisula bwangu-bwangu panuma ya kuleta utukoko. Ubuyo bufwile ukuba bwa kukwata utukoko ukufika kuli 80% natukwata icibukulo icaisula panuma ya nsa 8 ukufuma apo twaishile elyo no tukoko ukucila pali 95% ukukwata icibukulo icasula sana (Icikope 7) pa nsa 24 ukufuma apo twafikiile. Ici cilafwako ukumona ukutula ukufuma fye ilyo tuli utunono twafina bwino elyo twalakula bwino capamo.

Pa kupima ifyo icibukulo ciswile, salenimo utukoko 30-40 pa ncende ishapusana-pusana shitatu nangu 4 mu citele pakutila mwishibe nga cakutula utukoko tulesanga ifyakulya na menshi mu citele conse.

Mufwile ukupita mu kakoko kamo na kamo no kutonya icibukulo mu kunakilila. Utukoko utusanga ifyakulya na menshi ya kunwa tukakwata icibukulo icaisula, icanakanaka kabili icabulungana. Nga cakutula icibukulo naciisula, lelo ifyakulya fileumfwika ifyakosa-kosa mu kati, ninshi ako akakoko takanwa sana amenshi.

## UKUPIMA ICIBUKULO

### Mulandu nshi uwa kutonya icibukulo?



Icikope 7: Ukupima icibukulo panuma ya nsa 24. Akakoko ku kuso icibukulo naciisula elyo akali ku kulyo tamuli nangu fimo.

- Ukupima icibukulo pa nshita ishakakaala panuma ya kuleta utukoko ni nshila iisuma iya kwishiba nga tulekwata insala ya kulya no kushininkisha ukutula utukoko tonse natusanga ifyakulya na menshi.
- Utukoko nga tatuleisusha icibukulo ninshi tatwakakwate insala ya kulya, tatwakakule

bwino kabili amafupa ne micincili tafyakalunduluke ukufika apafwaikwa, kabili ico cikalenga tukalepusana-pusana kabili cikakuma na ku cibweshu.

Ifya kucita pa kupima ifyo icibukulo cikulile Icbukulo cifwile ukubebetwa pa nsa isha kubalilapo 48, lelo insa isha kubalilapo 24 e shakakaala sana.

### Ifibombelo

1. Ica kwikatilako
2. Akalembelo
3. Ipepala apa kulemba ifyo icibukulo ciswile

### Ifya Kucita

Ukubebeta kwa kubalilapo pa nsa shibili panuma ya kuleta utukoko kukalanga nga cakutula utukoko natusanga ifyakulya na menshi. Ukubebeta ukwakonkapo pa nsa 8, 12, 24, na 48 panuma ya kufika pa faamu kulafwaikwa pakutula mumone nga cakutula tulekwata insala ya kulya.

#### Step 1

1 Ukubomfya ica kwikatilako, ikateni utukoko 30-40; nalimo utukoko 10 pa nshita imo ukufuma pa ncende 3-4 mu citele (nangu umwacingililwa umuli icikabilila).

#### Step 2

Ikateni akakoko kamo-kamo mutembo-mutembo, no kutonya icibukulo ca kakoko kamo na kamo ukubomfya icikumo no munwe wa kusontelako.

#### Step 3

Lembeni ifili mu cibukulo ca kakoko kamo na kamo no kubiika mu mabumba ayakonkapo

- Icaisula, icanakanaka, icabulungana-utu tukoko twalisanga ifyakulya na menshi.
- Icaisula lelo icakosa ne fyakulya fileumfwika ifyakosa-kosa-utu tukoko twalisanga ifyakulya nomba tunwa fye amenshi ayanono nangu tatunwa no kunwa.
- Mu cibukulo tamuli nangu fimo-utu utukoko tatwasanga amenshi nangu ifyakulya.

#### Step 4

Pendeni amapesenti ya tukoko utuli mwi bumba limo na limo ukupitila mu kwingisha impendwa ya tukoko utuli mwi bumba limo na limo mu mpendwa ya tukoko uto mwacibebeta elyo ukutamusha na 100.

#### Step 5

Linganyeni ifyo mwasanga ku ca kwaafwa ukwishiba icipimo icifwile ukubapo icibukulo ifili pe bula 9.

## Ica kumwenako ca fya kulemba ilyo mwapima icibukulo

Insa panuma ya kutuleta	8
Ibumba	Impendwa ya tukoko muli ili ibumba
1. Icaisula, icanakanaka, icabulungana	III III III III III
2. Icaisula lelo icakosa ne fyakulya fileumfwika ifyakosa-kosa	III
3. Mu cibukulo tamuli nangu fimo	II
Tonse pamo	35

### Ica kumwenako ca fya kupenda

Pesenti ya tukoko mwi bumba 1  
 (icaisula, icanakanaka, icabulungana)

$$\begin{aligned}
 &= \frac{\text{Impendwa ya tukoko mwi bumba}}{\text{Impendwa ya tukoko tonse mwabebeta}} \times 100 \\
 &= \frac{30}{35} \times 100
 \end{aligned}$$

Utukoko mwi bumba 1 = 86% utwapiminwe pa nsa 8 panuma ya kubikwamo

### Ica kwaafwa ukwishiba icipimo icifwile ukubapo icibukulo

Inshita ya kupima icibukulo panuma ya kuleta	Ica kutontapo ukwisula kwa cibukulo (pesenti ya tukoko utukwete icibukulo icaisula)
Insa 2	75
Insa 8	Ukucila pali 80
Insa 12	Ukucila pali 85
Insa 24	Ukucila pali 95
Insa 48	Ukucila pali 48

### Ukwilula ifyo musangile

Icipimo ca cibukulo nga cili palya pene nangu ukucila pa fili mu ca kwafwa

#### Takuli ifya kubombelapo

Icipimo ca cibukulo nga cili 5% nangu ukucilapo panshi ya fili mu ca kwafwa (ku cakumwenako 75% nangu ukucepako pa nsa 8 panuma ya kuleta).

#### Ukubombelapo kulefwaikwa

Mulekabila ukubebeta na kabili ifyo mulecita pa kukusha utukoko

### Umwa kwikala

- Moneni ukutila mwakafisha kabela mu citele ilyo utukoko tatulaisa.
- Shininkisheni ukutila utukoko tuleikala bwino sana ukupitila mu kubebeta no kwalulako nga cafwaikwa:
  - o Ukubebeta ifyo umwela ukabile/ukutalala panshi apali utukoko
  - o Ifya kubiika panshi nga nafikaba nangu ukutalala
  - o Umutonshi
- Shininkisheni ukutila ulubuuto lulesanikisha mu ncende mulekushisha utukoko
- Shininkisheni ukutila umwela uli uwalinga ku tukoko.

## Ifyakulya na menshi

- Shininkisheni ukutila utukoko natukwata ifyakulya ifingi na menshi.
- Shininkisheni ukutila 90% panshi napafimbwa ama pepala apabikilwe ifyakulya.
- Mulebikapo utufyakulya tunono libili-libili pa mapepala.
- Shininkisheni ukutila mulebomfya ifya kunwenamo na fimbi (utwa kunwenamo utunono).
- Mulebikamo ifyakulya libili-libili mu nshita yakukusha.
- Mulebebeta icibukulo pa kushininkisha ukutila utukoko tulelya no kunwa amenshi maka-maka pa nsa 24 isha kubalilapo.
- Mulebebeta ifya kuliilamo ne fya kunwenamo no kuficinja ukulingana o kukabila.
- Mulebebeta utukoko libili-libili akasuba konse.

## Ukusondwelela

Ukwishiba ifya kwangalila pa mulungu wa kubalilapo uwa kukusha utukoko kwalikakaala nga cakutila ubumi bwa nkoko buli bwino mu nshita yonse iya kukula. Kwaliba ifintu ifyakakaala 7 ifya kutontonkanyapo mu kukusha utukoko ku kutendeka:

- Amenshi
- Ifyakulya
- Icikabilila mu citele no mutonshi
- Ulubuuto
- Ubwingi bwa tukoko
- Ifya kubiika panshi
- Umwa kupitila umwela

Ifi fyonse fyalicindama nga mulefwaya utukoko ukukula bwangu pa kutendeka no kulingana. Nga cakutila mwakwanisha ukucita ifi fyonse, utukoko tukulunduluka mu kubangilila, ukukula no kulingana elyo kuntanshi shikafuma bwino.

## IFISHINKA FIKALAMBA PALWA KUKUSHA UTUKOKO

- Pekanyeni, ifitele ifya busaka no kusansamo

umuti wa kwipaya utushishi ninshi kucili inshita pakutila utukoko tukese.

- Shininkisheni ukutila mu citele muli icikabilila icalinga ne cipimo ca mutonshi, no mwela uusuma, pepi-pepi ne nsa 24 pakutila utukoko tufike.
- Shininkisheni ukutila ilyo line fye utukoko twafika natukwata ifyakulya na menshi.
- Moneni ifyo utukoko tulecita pa kutila mwishibe icikabilila icilefwaikwa pa kukusha utukoko.

UMUTANDE UWAYANGUKA UWA SHINGAPOOSWAPO	
<b>IMPENDWA YA TUKOKO MWASHITA</b>	
<b>IFYAKULYA: IFYA KUTAMPILAPO</b>	
IFYA KUKUSHA	
IFYA KULEKELESHA	
<b>D.O.C</b>	
IFYA KUBIIKA PANSHI	
AMALASHA	
AMALAITI	
UMUTI WA KUCILIKILA AMALWELE	
UMUTI WA KUNDAPA	
IMITI	
UKUWAMYA	
AMENSHI	
UKULONDA	
UKWIKATA	
ABA KUBOMBA	
ABA KUSHITISHA	
UKWANGALILA	
UKUSONKELA	
INKONGOLE SHA KUBWESHA	
<b>ISHO MULEPANGA</b>	
ISHA KUSHITISHA ISHITUNTULU	
ISHAIPAWE NO KULONGWA MU MAPLASTIKI	
ISHAFWILEMO	
UMUFUNDO	
ISHO MWAPANGILE/ISHO MWALUUSHILE	

## UUTEMBATEMBA IFITEEKWA

Uutembatamba ifiteekwa muntu uwaishiba kabili ni kalapashi mu kusunga bwino ifiteekwa mu nshila iyabula ubusanso, iisuma, kabili iyabula ukulenga ifiteekwa ukukanshika. Mu kuteeka inkoko, uutembatamba ifiteekwa alicindama sana pakutila inkoko sha loni shibe bwino, shikule bwino, no kumiletela icibweshwa. Ukwampana kusuma pakati ka nkoko sha loni na muntu shiikala (ukwishiba ifiteekwa) e kulenga umu ukuba kalapashi mu kutembatamba ifiteekwa. Onse uutembatamba ifiteekwa afwile ukwishiba inkoko ishili mu citele na muntu shiikala ukupitila mu kubebeta ifyo inkoko shilecita elyo ne fyo ifintu fili mu citele. Uku ukubebeta ilingi line bakwita ati 'ukwishiba ifiteekwa' kabili cintu cikonkanyapo icisanshamo amaka yonse aya utembatamba ifiteekwa. Icikope cili panshi cilelangilila ifyo uutembatamba ifiteekwa abomfya amaka yakwe yonse ku kubebeta inkoko.

### Ukuumfwa

Listen to the birds' vocalization, breathing, and respiratory sounds. Listen to the mechanical sounds of fan bearings and feed augers

### Ukumona

Observe behavior such as bird distribution in the house and number of birds feeding, drinking, and resting. Observe the environment such as dust in the air and litter quality. Observe bird health and demeanor such as posture, alertness, eyes, and gait.

### Ukununsha

Keep notice of smells in the environment such as ammonia levels. Is the air stale or stuffy?

### Ukusonda

Water and feed quality.



### Ukwikata

Handle the birds to assess crop fill and check the birds' general condition. Take notice of air movement across your skin. Is there a draft? What does the temperature of the house feel like?

## Ukucefyako Ukukanshika mu Nkoko sha Loni pa Mulandu wa Cikabilila

icikabilila nga cacilamo kuti caonaula inkoko sha loni isha kushitisha; elyo kwalunda no mutonshi uwingi ninshi cabipisha na sana. Ukucishamo icikabilila kulalenga inkoko sha loni ukukanaikala bwino kabili tashikula bwino. Ilyo icikabilila icacilamo inkoko ifwile ukwaluka-aluka mu mubili pa kutila taifwile ku kufunshika pa mulandu ne cikabilila. Ici cilenga ukutila inkoko iifikapo ukukula ukulingana ne fyo ifwile ukukula.

### **Bushe inkoko sha Loni shicita shani nga icikabilila cacilamo?**

Inkoko sha loni nga shaba umwakabisha kuti shacita ifyapusana-pusana ifya kushafwa pakutila shiteulule mubili ukulingana ne cikabilila shilimo. Inkoko sha loni shilatuusha sana nga shaumfwa ukukabisha. Shimo shiminina fye shilili elyo shimbi shilabungana pamo mupepi ne cibumba nangu mupepi na menshi. Ilingi line shilatalusha amapindo ukufuma ku mubili pakutila shileumfwako ukutalala ukupitila mu kucefyanyako icikabilila iciikatwa mu mubili. Mu mubili, umulopa balaupaasula ukufuma ku filundwa fimo ifya mu mubili pamo nga bapwapwa, imfyo ne mala ukuya ku mishipa iyapabuka iya mu munofu pakutila icikabilila cilefuma.

Ukutuusaila nangu "ukupeemashika" kulacilamo pa ciputulwa ca nshita ilyo kukabile sana. Ukufumya icikabilila ukupitila mu kuitalalika kulalenga inkokoya loni ukucefyanyako icikabilila icilepangwa mu mubili. Lelo, pa kupeemashika ilakabila ukubomfya sana imicincili ne ci cikabila ukutila ikabile amaka kabili ici calyampana no kukanshika pa mulandu no kukabisha. Kanshi, nga kwakabisha ukukabila sana amaka e kwendela pamo no kukaba. Ukupeemashika ilingi line kubako nga cakutila ukukaba ukuli mupepi na madigiri 30°C nangu ukucilapo. Umutonshi uuliko efiya ulalenga icikabilila ukwandulukako ukupitila mu kupeemashika. Inkoko sha loni, pamo ne nkoko shimbi ishiteekwa, tashifwaya nga kwakabisha elyo kwaba ne cipuki sana. Imfwa ishiisa pamulandu no kufunshika pa mulandu ne cikabilila shilacitika

bwangu sana, maka-maka ku nkoko ishaina, nga cakutila nakukabisha elyo kuli na cipuki. Mu nkoko ishaha fye ishalinga, ukupeemashika kukalenga shifumyeko ifipeepa amaka pepi-pepi na 540 pali gramu imo iya menshi ayafuma kuli bapwapwa.

### **Bushe ukupeemashika kukakuma shani icipimo fya menshi-menshi ifyasadamina ne fya bululu mu nkoko ya loni?**

Nga kukonka fye, ifya menshi-menshi ifyasadamina fikontololwa na bapwapwa ne mfyo elyo ne fyakucingilila fimbi ifilenga kwilaba ukwaluka ukukalamba mu fya menshi-menshi ifyasadamina. Lelo, ilyo imipeemene ileilako pa muulu mu nkoko sha loni, umwela wa carbon dioxide mu mulopa ulacepelako. Ne ci cilenga ifyasongoloka ifyasadamina filafuilako mu mulopa. Ukukabisha kulacefya fiya ifisungilila ifyasongoloka mu nsandesande ne fintu fimbi mu mubili, kabili cilalenga fyaleka ukulingana.

### **Bushe kuti twaenekela ukutila inkoko kuti shaleka ukulya sana nga nashumfw ukukabisha?**

Ee. Nga mwasungila inkoko sha loni umwakabisha shilaleka ukulya sana. Ili efyo shicita mu cifyalilwa fye nga kwakaba sana. Nga shaleka ukulya sana ninshi shaleka ukukwata umulyo uulenga shilekula. Lelo, nga cakutila tashikwete umulyo uwingi uwa kusungulula ninshi umubili wa shiko tawakalefumya sana icikabilila. Kanshi, nangu cakutila tashakalekula bwangu, kuti nomba shaikalafye bwino te mulandu ne cikabilila pantu ninshi tashilekwata icikabilila ca kwandulula. Ifyasangwa mu kufwailisha filanga bwino-bwino ukutila inkoko sha loni tashipusuka sana ilyo shilelundako ukulya sana mu nshita sha kukabisha, maka-maka pa nshita shimo isha kasuba ilyo kucishamo ukukaba.

### **Mulandu nshi ukufunga kwacindamina pa ciputulwa ca nshita ilyo kukaba sana?** Mufwile ukwimya pamuulu ifya kuliilamo pa

ciputulwa ca nshita ilyo kukabile sana e kutila pakati ka 11:30 - 15:00 hrs. Uku ukufunga kulalenga inkoko tailepanga icikabilila pamulandu wa kusungulula umulyo no kuwingisha mu nsandesande. Ukufunga kulatontolola no kutontolola. Ifiteekwa nga file-enda imicincili ilatintika kabili ici cilafumya icikabilila. Mu ncende umwakaba kale-kale, ici icikabilila cilundako fye ukukaba ku mubili. Kanshi, pa kucefyako ukukabisha kwa mubili, inkoko sha loni shifwile ukusungwa ishatontoloka ukufika apo mwingapesha. Ici cikankaala sana sana-sana pa ciputulwa ca nshita ilyo kukaba sana. Ilyo iciputulwa ca nshita ica kukaba sana capita, inkoko shikatampa ishine ukulya ifyakulya na kabili.

### **Finshi ifyafwilishako nga cakutla inkoko sha loni shileumfwa ukukabisha?**

Mu ncende umwakaba/umwa cipuki umwaba ifitele ifyaisuka ku mbali shonse cikankaala sana ukutila umwela ulepita bwino elyo na menshi ya kunwa ayengi. Mufwile ukukwata umwingi umwa kupita umwela. Umwela nga ulepita bwino ulafumyamo umwela uufuma ku matootoli, umwela wa carbon dioxide no mutonshi. Ukupeemashika kulalenga amenshi ukufuma sana kuli bapwapwa. Kanshi, inkoko sha loni shifwile ukulanwa sana amenshi mu nshita iya kukaba pakutila amenshi tayapwile mu mubili. Amenshi ya kunwa ayatalala yalalenga inkoko

shilelya sana no kunwa sana amenshi. Cisuma sana ukucefyanyako ukukaba kwa mubili mu nkoko ishakanshika ku mulandu no kukaba. Nga cakutila amenshi ya kunwa nayatalala ukucila umubili wa nkoko ninshi yali no kulenga umubili wa nkoko ukutalalako. Kanshi, calicindama sana ukupeela amenshi ya kunwa ayatalala ku nkoko sha loni ishakanshika pa mulandu wa kukaba. Ilingi line, icili conse icingalenga inkoko ukulanwa sana amenshi cili no kuwamina inkoko pakutila shipusuke inshita ya kukaba.

### **Ukusupula**

Inkoko sha loni ishakanshika pa mulandu no kukabisha shifwile ukuteulula fimo mu mubili pakutila shitwalilile no bumi. Imiliile ilabwela panshi elyo ukunwa amenshi kulaya pa muulu. Ukucefyanyako ukulya kuti kwacefyako icikabilila icifulo mu kusungulula ifyakulya no kulya umulyo. Ukulya ifipeela amaka no kulingana kwa fya menshi-menshi ifyajasamina ifiitwa amino acid kwalicindama sana nga inkoko nashikanshika umulandu no kukabisha. Ukukwata umwa kupita umwela umwingi no kucincisha ukutila shilenwa sana amenshi kulafwaikwa. Ukulenga inkoko shacefyako ukusukasuka pa nshita ishakabisha sana kulalenga imibili ya shiko tailekaba sana. Ukumona ukutila kwabako inshita sha kufunga naco cisuma kabili ilingi line cilawako inkoko ukupusuka iciputulwa ca nshita ica kukabisha.

## Inshila sha Kubomba Bwino ku Kucefyako Ubulwele bwa Kwisulila Amenshi mu Nda mu Nkoko sha Loni

### Intendekelo

Ubulwele bwa kwisulila amenshi mu nda buntu bulengwa ne fintu ifingi pamo nge mibombele ya filundwa fimo ifya mu mubili, ifyaba mu citele ne nshila sha kubombelamo. Nga kwasangwa mu nkoko sha Loni buli no kukuma imikulile ya nkoko ne ndalama shili no kuleta. Inkaama ya kucilikila ubulwele bwa kwisulila kwa menshi mu nda yaba kukwata imibombele isuma, maka-maka ukukuma ku fya kupisha umwela.

### Bushe Ubulwele bwa Kwisulila Amenshi mu Nda Cinshi?

Ifintu iflenga umutima ukulabombesha ukupitila mu kulenga ulefwaya sana umwela wa oksijini (pamo nga ukukula lubilo-lubilo, ukwingililwa ne mpepo, ukucepelwa kwa mwela wa oksijini nangu amalwele ayakuma ku mipeemene) kuti fyaleta ubulwele bwa kwisulila amenshi mu nda.

Ukusuuma kwa menshi ukufuma ku mabu ukwitikila nda mu kuya kwa nshita kulacincintila imipeemene kabili kwi pele-pele kuti kwatwala ku mfwa. Ifya Kucefyako Ubulwele bwa Kwisulila Amenshi mu Nda mu Nkoko sha Loni

1. Shininkisheni ukutila umwela ulepita bwino bwino ukufuma apo utukoko twaishila mpaka napo shikapwila. Ifipimo fya mwela fifwile ukusuntinkana ne fifumya umwela ifyaba mu citele, ukuleka uwela uwingi uleingila pakutila ulepyanikapo oksijini ilebomfwa elyo no kufumyamo umwela umbi uushilefwaikwa. Ukupayanya umwela wa oksijini uwingi cintu icikankaala sana mu ncende ishabela pamuulu. Umwela wa oksijini walikwata icipimo icabelelela mu mwela, lelo mu ncende ishabela panshi, ifipimo fya mwela wa oksijini kuti fyalenga inkoko ukukwata ubulwele bwa kwisulila amenshi mu nda, maka-maka nga cakutila ifintu fimbifyalenga inkoko shilepikintika.
2. Sungilileni umwela uusuma. Ici calyampana mu kulungatika no kukwata umwa kupita umwela umusuma elyo no kubombelapo bwino pa fya kubiika panshi. Ifya kukowesha

umwela nga fyafula (pamo nga umwela uufuma ku malasha nga yaleaka, umwela wa carbon dioxide no lukungu) kulaleta ubwafya mu mipeemene. Ici cilacefya imipeemene no kucefya umwela wa oksijini mu mulopa kabili citungulula ku bulwele bwa kwisulila amenshi mu nda.

3. Cingilileni utukoko ku kwingililwa ne mpepo maka-maka mu nshita tucili utunono. Nga twaba pa mpepo cilalenga umubili ukulabombesha (ukufwaya umwela wa oksijini uwingi) kabili kuti catwala ku bulwele bwa kwisulila amenshi mu nda ku ntanshi ilyo shilekula. Pa nshita muleingisha utukoko, icikabilila ca panshi cifwile ukuba 28-30°C (82°F - 86°F), elyo icikabilila ca mwela cifwile ukuba 30°C (86°F) elyo umutonshi pakati ka 60-70%.
4. Imitantikile ya kwasha amalaiti. Insa ishalundwako 1-2 isha kuba mu mfifi ukulunda pa nsa 4 shilya isha lyonse ku nkoko sha Loni Ukucepako pali 2.5kg/5.5lbs (ukufuma ilyo twafisha inshiku 8 ukufika pa nshita ya kushipaya) nangu insa 6 ku nkoko sha Loni Ukucilako pali 2.5kg/5.5lbs (ukufuma ilyo twafisha inshiku 8 ukufika pa nshita ya kushipaya) kuti kwacefyako ubulwele bwa kwisulila kwa menshi mu ndala. Mwilakwata inshita sha kushimya amalaiti ilyo utukoko tatulafisha inshiku 7.

### IFISHINKA FIKALAMBA

Cilafwaikwa ukutila umwela uusuma ulepita (cili fye na ku fifumya umwela ifyaba mu citele) ukufuma pa nshita mwaingisha ukufika na pa nshita shikapwa, maka-maka mu ncende ishabela pamuulu. Cincintileni ifingalenga umubili wa nkoko ukulabombesha pa mulandu ne ciputulwa ca nshita ica mpepo, maka-maka pa nshita sha kutukusha ilyo tuli utunono.

## Icipa Kuti Kube Bulwazi bwa Ascities

### Intendekelo

Ubulwele bwa kwisulila amenshi mu nda bulwele ubwingacitika ukuli konse mu calo. Inkoko sha loni nga shalwala ubu bulwele ninshi buli no kukuma sana imikulile elyo ne ndalama muli no kusangamo.

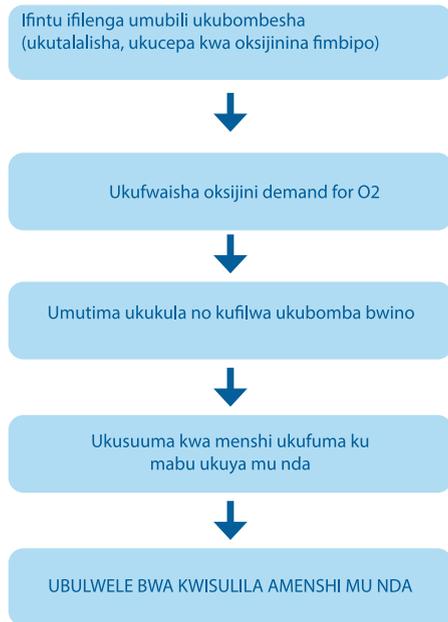
Ubulwele bwa kwisulila amenshi mu nda buntu bulengwa ne fintu ifingi pamo nge mibombele ya filundwa fimo ifya mu mubili (ku cakumwenako ukukabila oksijini), ifya mu njikalo (ku cakumwenako ukusansuka) ne nshila sha kubombelamo (ku cakumwenako ukubulisha umwela usuma, amalwele). Nangu cakutula ubulwele bwa kwisulila amenshi mu nda kuti baseeka sana (nga cakutula umulesungilwa inkoko tamuweme no kukanakontolola bwino imikabile ne mitalalile kuti calenga inkoko ishingiki ukufwa elyo no mutengo ukuya panshi pamulandu wa kufula kwa bulwele bwa kwisulila amenshi mu nda.)

### Bushe Ubulwele bwa Kwisulila Amenshi mu Nda Cinshi?

Ukwishiba ubu ubulwele e cintu cakubalilapo nga mulefwaya ukucefyako nangu ukucilikila ubu bulwele mu nkoko sha loni.

Ifili fyonse ifilenga umutima ukulabombesha ukupitila mu kulenga ulefwaya sana umwela wa oksijini (pamo nga ukukula lubilo-lubilo, ukwingililwa ne mpepo, ukucepelwa kwa mwela wa oksijini nangu amalwele ayakuma ku mipeemene) kuti fyaleta ubulwele bwa kwisulila amenshi mu nda. Nga cakutula umutima na bapwapwa fyatendeka ukubombesha, kulaba ifibalamunwa (Icikope 1) ifilenga umwela wa oksijini wacepa mu mulopa. Ilyo buletampa fye kuti mwaishibila ku kufiita kwa ca pa mutwe icakashika no tulebelebe. Ilyo ubulwele buleya pantanshi, amenshi (ayasuma ukufuma kuli pwapwa) yalekalila mu nda. Mu kuya kwa nshita, ici cilalenga ukupeema ukwafya (ni pali iyi nshita elyo ica pamutwe no tulebelebe utwa kafifi) na kwi pele-pele, ifi fine e filenga inkoko ukufwa.

### Icikope 1: Ificitika ifitungulula ku bulwele bwa kwisulila amenshi mu nda



Ukwisulila amenshi mu nda

**Ifyo Ukupita kwa Mwela Kwa-ampana no Bulwele bwa Kwisulila kwa Menshi mu Nda**

Icintu icikuma sana ubulwele bwa kwisulila amenshi mu nda ku nkoko sha loni bwingi bwa mwela wa oksijini uwingila mu citele.

Nga cakutula umwela tauleingila sana mu citele cilalenga umwela wa oksijini ukucepa elyo umwela umbi uushawama pamo nga ulya uufuma ku malasha nga yaleaka, umwela wa carbon dioxide na ulya uufuma ku matootoli. Ici cikalenga imishipashipa iipisha umulopa ukulabombesha ne co cikalenga amaka ya iko aya kusenda umwela wa oksijini ukucepa elyo no kulenga ubulwele bwa kwisulila kwa menshi mu nda ukuluminako. Umwela uuleingila ufwise ukufulamo sana oksijini icakutula yasailisha pali oksijini iibomfiwe no kushininkisha ukutula umwela umbi uushilefwaikwa wafuma.

**Ifyo Umusango wa Mwela Wa-ampana no Bulwele bwa Kwisulila kwa Menshi mu Nda**

Ukubombelapo bwino pa fya kubiika panshi pamo no kukwata umwela uwingi kulafwako ukutwalilila ukukwata umwela uusuma. Umwela nga tauleingila sana elyo ne fya kubiika panshi taflebombelwapo bwino cilalenga ifya kubiika panshi ukubomba no kufusha umwela uufuma ku matootoli. Mu citele nga muli ulukungu inkoko shikalapeela ulu ulukungu kabili ici cikalenga ukusesa elyo no bwafya bwa mipeemene. Umwela nga tauli bwino, ulukungu na malwele ayakuma ku mipeemene fyonse kuti fyalenga inkoko ukulwata ubulwele bwa kwisulila kwa menshi mu nda ukupitila konaula umupita umwela pa kupeema kabili ico cilalenga inkoko cikankaala sana kutila ifya kubiika panshi fili ifya busaka kabili tafikwete bundebunde nangu ukukowela pa nshita muleingisha utukoko.

**Ifyo Ukukaba no Kutalala Kwa-ampana no Bulwele bwa Kwisulila kwa Menshi mu Nda**

Ukusungilila icikabilila icalinga ilyo mulekusha utukoko cintu cakakaala nga mulefwaya ukucincintila ubulwele bwa kwisulila kwa menshi mu nda. Nga cakutula inkoko shaba umwatalala pa nshita iyalepa ukucila pa fyo umubili wa shiko wingakumamo cili no kulenga shilefwaya sana umwela wa oksijini pantu shilapatikishiwa ukubomfya sana amaka ya mu mubili pakutula

shumfwe ukukaba. Nga cakutula umubili wa shiko watampa ukubombesha muli iyi nshila kuti calenga ku ntanshi ilyo shilekula shakwata ubulwele bwa kwisulila kwa menshi mu nda. Icikabilila icalinga kabili icikontololwa bwino mu nshita ya kukusha utukoko, pamo no butantiko ubusuma ubwa kupita kwa mwela ukufuma fye apo mwaingishisha utukoko kuli no kucefyako nangu fye ukupwishishisha amafya ya bulwele bwa kwisulila kwa menshi mu nda ifingesako ku ntanshi ilyo inkoko shilekula.

Pa kwingisha utukoko, icikabilila ca panshi cifwile ukuba 28-30°C (82°F - 86°F), elyo icikabilila ca mwela (ekutula palya utukoko tupelele) cifwile ukuba 30°C (86°F) elyo umutonshi pakati ka 60-70%. Umutande 3 ulelanga icikabilila icalinga mu citele ilyo mulekusha utukoko. Pali uyu mutande icipendo cikabilila baletubulula ni cilya icakutula ninshi umutonshi (RH) uli 60-70%. Nga cakutula icipendo ca mutonshi tacilingene na aya amapesenti, mufwile ukwalula. Ku cakumwenako, nga cakutula icipendo ca mutonshi nacicepako pali 60% atemwa nacicila pali 70%, ninshi icipendo ca cikabilila pa ca kupiminako mufwile ukucilundako nangu ukucefyako.

**Umutande 3: Icikabilila icalinga ilyo mulekusha utukoko ninshi icipendo ca mutonshi cili 60-70%**

Umushinku (inshiku)	Ukufafya icitele conse	Ukufafya incende shimo-shimo	
	Ukukaba	Ukukaba	
		Ica Kukafya (A*)	Amamita 2 (6.6 ft) ukutaluka ku Ca Kukafya (B*)
Inshiku tukwete	30°C (86°F)	32°C (90°F)	29°C (84°F)
3	28°C (82°F)	30°C (86°F)	27°C (81°F)
6	27°C (81°F)	28°C (82°F)	25°C (77°F)
9	26°C (79°F)	27°C (81°F)	25°C (77°F)
12	25°C (77°F)	26°C (79°F)	25°C (77°F)
15	24°C (75°F)	25°C (77°F)	24°C (75°F)
18	23°C (73°F)	24°C (75°F)	24°C (75°F)
21	22°C (72°F)	23°C (73°F)	23°C (73°F)
24	21°C (70°F)	22°C (72°F)	22°C (72°F)
27	20°C (68°F)	20°C (68°F)	20°C (68°F)

\*Ifi fipendo fya cikabilila fili mitubululo fye. Icikabilila icine cine cili no kuba fye pafyo icitele cili ne fyo ifintu filesungwa. Nga mulefwaya ukwishibilapo na fimi pa fyo cifwile ukukaba ilyo mulekusha utukoko, landeni na beminishi ba kampani ka Ross ku ncende kuntu mubelele.

Ukukokola kwa kukanshika pa mulandu ne mpepo kwalikaakala ukucila icipendo ca kotalala. Umubili ukalabombesha no kukwata ubwafya bwa bulwele bwa kwisulila kwa menshi mu nda ilyo kutalele sana. Kanshi cikankaala sana ukutila nga kwaba fye iciputulwa ca nshita ica kotalala sana, mwabombelapo bwangu-bwangu.

#### **Ifyo Imikulile Ya-ampana no Bulwele bwa Kwisulila kwa Menshi mu Nda**

Paliba ukwampana pa kubombesha kwa mubili no bulwele bwa kwisulila kwa menshi mu nda. Ukwangufyanya ukukula kukabila umwela wa oksijini uwingi ne co cilenga umutima ukulabombesha. Kanshi ukukwata inshila ya kubombela bwino pa nkoko sha loni ishikula bwangu kwalicindama icine cine.

#### **Ifyo Ulubuuto Lwa-ampana no Bulwele bwa Kwisulila kwa Menshi mu Nda**

Pakutila umutima na bapwapwa ba nkoko balunduluke bwino ilyo shilekula cikankaala sana ukukonka icikongwani ca nshiku 7 ica kupima ukufina elyo no kutila ubutantiko bwa kwasha no kushimya amalaiti tabukonkelwe mpaka inshiku 7 shikapite.

**Umutande 4:** Ukuluma kwa lubuuto ne nshita sha kwasha amalaiti pakutila shikule bwino

Ukufina pa nshita ya kwipaya	Umushinku (inshiku)	Ukuluma	Ubutali bwa nshita (insa)
<2.5 kg	0-7	30-40 lux	Ulubuuto 23/ Imfifi 1
	8-ukufika ku kwipaya	5-10 lux	20 light 4 dark
<2.5 kg	0-7	30-40 lux	23 Mumuni 1 mudima
	8-kupaya	5-10 lux	18 light 6 dark*

#### **Ukusondwelela**

Ubulwele bwa kwisulila amenshi mu nda buntu bulengwa ne fintu ifingi pamo nge mibombele ya filundwa fimo ifya mu mubili, ifyaba mu citele ne nshila sha kubombelamo. Ubu bulwele bwacilikilwa ukupitila mu kumona ukutila kwaba ukukonka sana imibombele isuma.

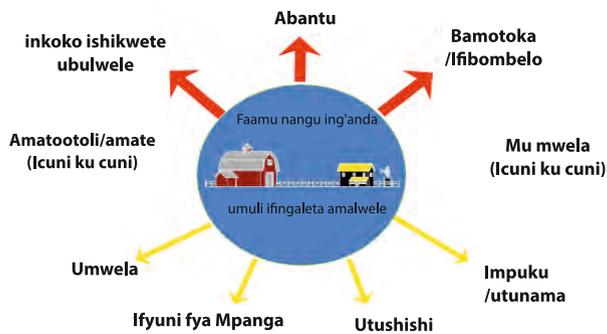
- Cilafwaikwa ukutila umwela uusuma ulepita mu citele ukufuma pa nshita mwaingisha ukufika na pa nshita shikapwa, maka-maka mu ncende ishabela pamuulu. Ifipimo fya mwela fifwile ukuleka uwela uwingi uleingila pakutila ulepyanikapo oksijini ilebomfiwa elyo no kufumyamo umwela umbi uushilefwaikwa.
- Cincintileni ifingalenga umubili wa nkoko ukulabombesha pa mulandu ne ciputulwa ca nshita ica mpepo, maka-maka pa nshita sha kutukusha ilyo tuli utunono. Ici kuti cacefyako nangu fye ukupwishishisha amafya ya bulwele bwa kwisulila kwa menshi mu nda ifingesako ku ntanshi ilyo inkoko shilekula.
- Ubutantiko ubwapekanishiwa bwino ubwa kukusha inkoko ubutendekwa panuma ya nshiku 7 nabo kuti bwabomba bwino ku ncende uko ubulwele bwa kwisulila amenshi mu nda bwafula sana.

Ukumfwikisha bwino ubulwele bwa kwisulila kwa amenshi mu nda ne fyo bwisa, ne fingacitwa pa kucincintila ifingalenga inkoko ukubulwala, kwi pele-pele fili no kwafwa ukukontolola ubu bulwele mu nkoko sha loni.

## UKUCINGILILA INKOKO KU KUSANSWA

Ukucingilila inkoko ku kusanswa kuti twatila fintu ifya kubomba ifyakwafwa mu kucincintila ukwingililwa no tushishi utuleta amalwele pa faamu elyo no kutucilikila pakutila tatwambukiile inkoko shimbi a faamu. Uku ukucingilila kulalenga kwaba ukubiika amano ku busaka mu fitele ne co cilenga ukutila ubulwele nga bwaingila tabwiweye inkoko ishing, ubusaka bulalenga ne nkoko ukukula bwino no kuteketa kabili bulenga ne fyakulya ukukanakwata ubwafya. Bamo batila Abalimi abakalamba e bafwile fye ukucingilila inkoko ku kusanswa, lelo ubo bufi. Amalwele kuti yawa ukuli konse uko tabalecita ifya kucingilila inkoko ku kusanswa. Pali uyu mulandu, abalimi bonse aba nkoko, cibe banono, balya abasunga fye mu lubansa nangu abalimi abakalamba bonse bafwile ukucingilila inkoko ku kusanswa. Icikope cili panshi cilelanga inshila ishaseeka isho amalwele ya nkoko yasalangaina.

### Bushe amalwele ya nkoko ilingi line yasalangana shani?



### Ni Nshila nshi ishikalamba isha kucingilila inkoko ku kusanswa umu engabomfya ku kucefyako ukusalangana kwa bulwele pa faamu?

1. Mwilakeka abantu abo tamusuminishe ukwingila pa faamu nangu mu citele ca nkoko: Abeni maka-maka nga bafumine pe faamu lya nkoko limbi kuti baisesa no tushishi no kuleta kwi faamu lyenu nangu mu fitele fya nkoko kanshi tamufwile ukubaleka bapalama ku fitele fya nkoko. Ici cilesanshamo na baleisa mu kushita inkoko lilya mwatampa ukushitisha pantu nabo balapitana mu fitele fya pa mafaamu ya mupepi ilyo balefwaya inkoko ishisuma.



2. **Mwilaleka bamotoka abengi ne fimbayambaya ukwingila mu faamu yenu:** Bamotoka ne fimbayambaya na fyo filasenda amalwele ukufuma ku mafaamu yambi, filya fine fye na bantu bacita. Bamotoka ne fimbayambaya ifileisa pa faamu mufwile ukufisansa umuti.
3. **Cingilileni fitele pakutila ifyuni tafleingila:** Ifyuni fya mu mpanga filakwata amalwele ayengi ayambukila inkoko. Kanshi tamufwile ukufleka fileingila mu fitele fya nkoko pantu filaleta amalwele. Mu mbali ya fitele umuba insolokoto ishikalamba mufwile ukucingamo na waya nangu sefa. Ifyakulya fya nkoko ifiponena panshi mufwile ukufipyanga pakutila tafilelenga ifyuni fya mu mpanga ukulaisa ku fitele fyenu.
4. **Bikeniko inshila isuma iya kukontolola impuku, utushishi no tunama tumbi.** Bakoswe balaleta amalwele elyo kabili balalya sana ifyakulya fya nkoko kabili ici kuti calenga mulepoosa ulupiya ulwingi ukushitilapo ifyakulya fya nkoko.



5. Pangeni apa kusamfisha, umwa kunyanta amakasa umuli umuti, apa kusambila ku minwe elyo ne fyakufwala ku makasa na pa mubili ifya kwingila fye nafyo mu citele ca nkoko.



6. Te kwesha ukubwekesha mu citele inkoko ishshalapo ukufuma ku maliketi, mufwile ukusamfya no kusansa umuti kuli fyonse ifyo mwacilabomfya pamo nga fikasalanga kabili mufwile ukusamba ku minwe ilyo mwafuma mu kubombela ku mani nangu ku mufundo.
7. Mulepoosa bwino umufundo pakutila utushishi tatulefula ku ncende sha mupepi ne fitele.

**Ukuwamya no Kubomfya umuti, fintu ifyacindama mu kucingilila inkoko ku kusanswa!**

Ukuwamya incende yonse kulacefyako ubwafya bwa kwingililwa na malwele ukufuma mu nshila shonse isho yeshilamo kabili kulacefya impendwa ya tushishi utuleta amalwele, utushishi utwikala ku nkoko no tufuma ku nkoko shimbi ukuya ku shinankwe. Ukukwata inshita iya nshiku nangu 14 pakati ka kufumyako inkoko no kuletamo shimbi e cibomba bwino.

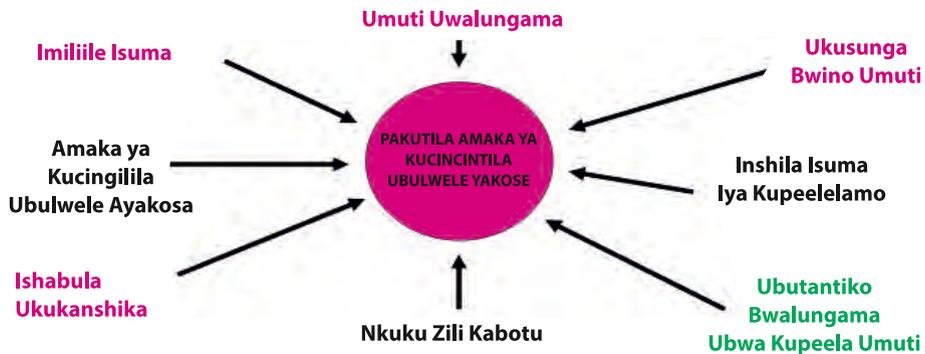
### Inshila 5 isha kuwamya bwino no kubiika umuti

1. Ukuwamya Ukwabula Ukubomfya Amenshi: fumenimo ifinsabwansabwa fyonse no kupoosa umufundo ukutaluka ku citele elyo no kukunta ulukungu no kufumya batandabube bonse.
2. Ukubomfya Sopo: Samfyeni no kukuusa fyonse ukutampila ku mutenge, ifibumba na panshi ukubomfya sopo nangu muti wa kuwamisha.
3. Sukulusheni: Bomfyeni amenshi ya busaka ukusukulusha icitele conse bwino-bwino.
4. Ukuuma: Leken amenshi yonse mu citele yominine pakutila mwise mubiikemo umuti
5. Ukubiikamo Umuti: Bomfyeni umuti uwasuminishiwa, uubomba bwino ukwipaya utushishi utuleta amalwele ya nkoko. Shininkisheni ukutula mwakonka fyonse ifyakucita ifyo bakambatika pali uyo muti.

### Iffkalamba Ifyakwishiba pa Kubomfya Umuti wa Kucingilila

Ukupeela umuti wa kucingilila amalwele kucitwa ukupitila mu kwingisha utushishi mu mubili utwapalana no tushishi utuleta amalwele pakutila amaka ya mubili aya kucincintila ubulwele bumo yakose. Amaka ya kucingilila amalwele e yacincintila ubulwele ubwambukila.

### Iffwaikwa Pakutila Amaka ya Kucincintila Ubulwele Yakose



### Ifyakucita nga mulefwaya umuti wa kubika mu menshi ya kunwa ubombe bwino

- Pekanyeni ukushipeela umuti pa nshita kutaleleko
- Pekanyeni ifya kunwenamo amenshi ifingi
- Leken ukushipeela umuti onse uwa mu menshi nangu ukubiika umuti mu menshi pa nsa 24 ilyo tamulashipeela umuti wa kucingilila uwa mu menshi
- Fumenimo amenshi pa nsa 1-2 ukushintilila na pa ciputulwa ca mwaka, nga ni mu lusuba inshita ifwile ukwipipa
- Bomfyeni ifya kusangulula amenshi nangu umukaka untu bafumyamo amafuta yonse ukufumyamo umuti wa klorini mu menshi
- Buuleni akabotolo ka muti, fumenipo akakupiko ka plastiki, na kalata ka pamuulu elyo mufumyeko akamupila ninshi namwikata akabotolo mu menshi.
- Kumbuleni bwino no kwitulwila uyo muti mu fya kunwenamo ifingi
- Leken inkoko shinwe pa nsa 1 ukufika kuli 2 kabili bebeteni ululimi lwa nkoko ukumona nga cakutula nashinwa bwino-bwino umuti.

## **Amafya ne Fyakucita ku ba Mafaamu ya Nkoko sha Loni Isha Mushinku Wapusana-pusana**

Dr. Frank Travers-Veterinary Specialist: Poultry Health

### **Ukulondolola Amafaamu ya Nkoko sha Loni Isha Mushinku Wapusana-pusana:**

Ukuteeka inkoko sha loni isha mushinku uwapusana-pusana mu citele nangu pa faamu, apo ifaamu talituusha ukuteeka inkoko. Ifaamu lyonse lilakwata inkoko sha loni no mufundo ufumamo. (Ukupusanako na balya abengisha inkoko isha umushinku umu wine pa nshita imo no kwisashitisha shonse pa nshita imo elyo kwaba ne shita tabakwete inkoko nangu mufundo pa faamu).

Ubwafya bukwata Amafaamu ya nkoko sha mushinku uwapusana-pusana:

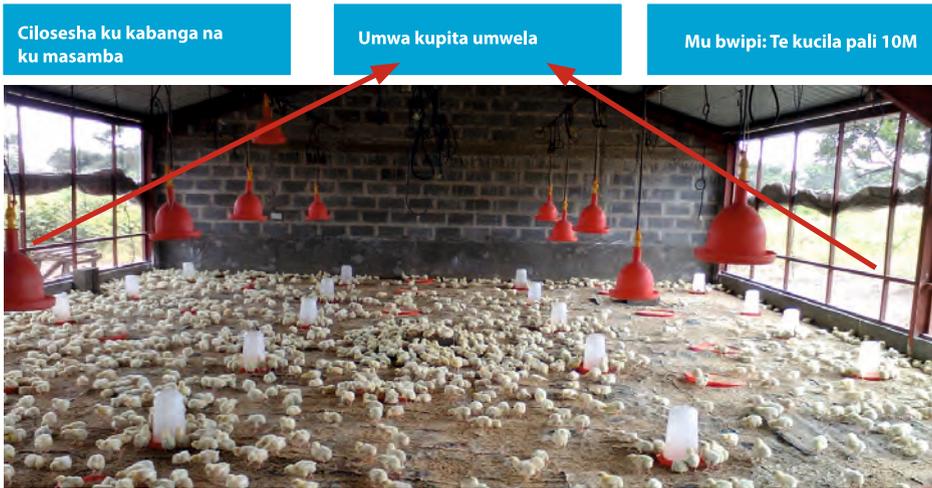
1. Inshita shonse kulaba ubwafya bwa tushishi utwingaleta amalwele utwingi. Ici kuti calenga inkoko ukulwala no kufwa. Kwali amalwele ayengi ayo shingalwala. Ku cakumwenako Gumboro, Newcastle na Colisepticaemia.
2. Ukukanakula sana no kukanalya sana, elyo no kufwa sana.
3. Indalama shakubomfya shilafula pa mulandu wa kutila umuti ulafwaikwa uwingi.
4. Imiku ya kufumyamo ishishili bwino ilafula elyo inkoko tashiina sana.
5. Teti mufumye ifyo kunyantapo ukwabula ukusalanganya ubulwele.
6. Utushishi twa mu fya kunyantapo kuti twafula kabii twasalanganya amalwele.
7. Impuku no tunama utunono filafula-ifi filaleta amalwele na Salmonella

Batila icitele icaba pe faamu ilyakwata inkoko sha mishinku iyapusana-pusana kufumyamo fyonse ifya kunyantapo na matootoli, ukukolopamo no kusansamo umuti uwalinga no kuleka mupite umwela pa milungu ibili nangu itatu cila mwaka (e kutila pa faamu tapali no kuba inkoko sha loni).

Nga cakutila panshi paba fye iloba, kuti mwabomfya inshita ya kutuusha ukupitila mu kufumyamo iloba lya pa muulu elyo mwasaakanya laimu / umucele ukushingula panshi no kushinka ifipunda ukushinguluka ifitele.

## Ifyo Umusango wa Fitele Ukuma Indalama Muli no Kusangamo

Inkoko sha loni isha shino nshiku ishikula bwangu shifwaya sana ukwikala umwawamisha ukucila ifyuni fimbini ifiteekwa. Kanshi cikankaala sana ukukwata icitele icisuma nga nshi nga mulefwaya ukusangamo indalama ilyo mwaisashitisha. Icikope ca citele icili panshi cilelanga ifyo icitele ica mbali ishaisuka cifwile ukuba.



### Icitele icaisuka mu mbali icisuma



**Icitele icibi:** Umwela taulepita sana. Ciipi sana.

Amafya ayengaba mu citele ca ifi yasanshako:

- Tashikula bwangu
- Ifyakulya Tafibomba Bwino (Ukubomfya ifyakulya ifingi sana lelo inkoko tashileina bwangu)
- Umwela ulakowela ku fintu pamo nga umwela uufuma ku matootoli, umwela uufuma ku malasha nga yaleaka (nga mubomfya amalasha), ulukungu no mwela wa carbon dioxide
- Inkoko ukukwata sana amafya mu mipeemene no bulwele bwa kwisulila amenshi mu nda
- Cilenga ifya kunyantapo ukukanaba bwino kabili cikalenga mulepoosa sana indalama ukushita ifya kunyantapo.

Abateeka inkoko sha kushitisha bafwile ukulapima inkoko shabo cila mulungu pakutila baleishiba ifvo shilekula



**NUTRI**  
FEEDS

## Ifyo Inkoko sha Loni Isha ba Ross Shawama

Umulungu wa 1	Ishilefwa Cila Mulungu	Ukupenda Shonse Ishilefwa	Ifyo Shilelundako Ukufina
1	1	1	180g
2	0.5	1.5	450g
3	0.5	2	850g
4	0.5	2.5	140g
5	0.5	3	2100g

IFICITIKA NGA KULI UKWANGALILA BWINO LYONSE MU FITELE IFYAISUKA MU MBALI MU ZAMBIA

**Bushe na imwe efyo file-enda bwino ifi?**  
**Pakutila fyende bwino nge fi bomfyeni**

**NUTRI**  
FEEDS

## UKWA KUTUMA LAMYA

### SUPREME DEPOTS

Matero ABT	Shop No. 7 Petroda Lilanda Filling Station Along Common Wealth Road Lsk	
Kalingalinga ABT	Plot B7/68/17 Off Kamloops Rd, Kalingalinga Compound	0961836122
Mutendere ABT	Shop 1, Plot 34/CH80, Kazimai Market, Mutendere	0764863593
Soweto ABT	Shop 2100, New Soweto Market, Lusaka	0965254274
Foxdale ABT	Along Zambezi Road Opposite MTN Headquarters	0764319552

### COPPERBELT DEPOTS

Solvezi ABT	Along Kansanshi Road Mushitala Opposite Soltech	0764321616
Kasumbalesa ABT	Shop 9, Plot P2/H2/N2/J2, Chillilabombwe, Kasumbalesa	0960186324
Chifubu Depot	Plot 656 Muleya Street Chifubu Township Ndola Opposite Council Library	0967051542

### COPPERBELT SUPREME DEPOTS

Chillilabombwe Depot	55A North Way, Town Centre, Chillilabombwe	0768622745
Ndeke Depot	Ndeke Masuzyo Next to Council Offices	0960186919
Kalulushi Rd Depot	Nutri Kitwe Mill, Off Kalulushi Rd, Kitwe	0768821439
Kasumbalesa ABT	Shop 9, Plot P2/H2/N2/J2, Chillilabombwe, Kasumbalesa	0960186324
Kwacha Depot	1st Kwacha Along Mporokoso Road	0975994993
Luanshya Depot	109 Paikani St, 2nd Class, Luanshya	0768622744
Kitwe ABT	Plot 50, 34 Kabelenga Ave, Town Centre, Kitwe	0960446919
Masala Ndola Depot	Plot Number 2565/5 Kawambwa road	0975637447
Mwaiseni Depot	Shop 1, Plot 8A, Zambezi Rd, Mwaiseni Commercial, Chingola	0762434098
Ndola Depot	Kabelenga Avenue, Ndola	0764863598
Nkana East Depot	Shop 9, Chisumas Emporium, Central St, Nkana East, Kitwe	0960186771
Jacaranda Depot	Jacaranda Point Mall Along Komando Road Ndola	
Kalulushi Town Depot	Kalulushi Mine Area Chibuluma Round About	

### FEED, CHICK AND SUPREME DEPOTS

Barlastone Depot	Shop 3, Exodus Building Plot, 1938/SU1/3, Mungwi Rd	0961836425
Chawama Depot	Shop 9, Plot BP65/Block 269, Off Chifundo Rd, Chawama	0961102360
Checkpoint Depot	Shop 4, Plot 30511/M, Great North Rd, Kabangwe	0965254133
Chilanga Depot	Shop 2, Plot 1361, Kafue Rd, Chilanga	0961102361
Kamanga Depot	Mpezeni Centre, Ngerwerere Rd, Chelstone	0762434099
Kamwala South Depot	Shop 3, Fortune Business Centre, Plot 916/1 Sub A & B, Kamwala South	0961102409
Lusaka West Depot	Nosh Complex stand # BP 26/24 Along Mumbwa Road	0961102519
Makeni Villa Depot	Shop 1, Plot 687, Los Angeles Rd, Makeni Villa, Lusaka	0960186634
Mimosa Depot	Mimosa Farms, Plot 3A of 49A, off Kafue Road, Chilanga	0765622282
Showgrounds Depot	Lusaka Showgrounds, Cattle Section, next to Vetlab	0762434084
Waterfalls Depot	Nutri feeds Stand # 789936 Off Great East Road	0961102412
Chongwe ABT	Stand No. 1920421, Great East Road, Chongwe	0960186424
Woodlands Depot	Plot 7417 of 1993, Muramba Rd, Chilenje South, Lusaka (Chris Corner)	0961102408

### LUSAKA NUTRI FEED & CHICK DEPOTS

Ibex Hill Depot	Shop 1, Plot 1728/1 Ibex Rd, Lusaka	0965254267
Kafue Depot	Shop 2, Plot 0255, Ulendo Street, Kafue	0965254267
Libala South Depot	Shop 4, Plot 26565, Kasama Rd, Libala South	0963916953
Lilayi Depot	Plot 405a/6, Lilayi Mall, Lilayi Road	0968210105
Meanwood Depot	Plot 11883, Corner Palm Drive and Airport Rd, Airport Roundabout	0965254415

### SOUTHERN NUTRI FEED & CHICK DEPOTS

Livingstone Depot	Plot 4547, Mwela Road, Livingstone	0961102517
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### NORTHERN NUTRI FEED & CHICK DEPOTS

Kasama Depot	Shop 2/3, Plot 3304, Mbala Rd, Kasama	0961102517
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### WESTERN NUTRI FEED & CHICK DEPOTS

Mongu Depot	Plot 157, Independence Avenue, Mongu	0965254153
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### OMNIA OUTLETS

Omnia 10 Miles	10 miles	260974396975
Omnia Chongwe	Chongwe	260974396951
Omnia Chisamba	Chisamba	260770792888
Omnia Makeni	Makeni	260974396640
Omnia Mumbwa	Mumbwa Town	260974396681
Omnia Soweto	Soweto Mumbwa RD	260979158656
Omnia Kabwe	Kabwe	260972765113
Omnia Kapiri	Kapiri	260974396688
Omnia Serenje	Serenje	260974682431
Omnia Mkushi	Mkushi	260974396658
Omnia Mpika	Mpika	260974396675
Omnia Ndola	Ndola	260974396680
Omnia Solwezi	Solwezi	260974396987
Omnia Mazabuka	Mazabuka	260971005156
Omnia Monze	Monze	260974396645
Omnia Choma	Choma	260974396607
Omnia Kalomo	Kalomo	260974396972
Omnia Livingstone	Livingstone	260964929631
Omnia Katete	Katete	260974396672
Omnia Lundazi	Lundazi	260974644068

### LUSAKA RESELLERS

Pyramid Vet 10 Miles	Mat Park Stand#6 Along Kabwe Road	260977275332
Pyramid Vet Stallio	Stallio Shopping Complex Stand#2 Along Great East Road	260977275332
Pyramid Vet Kalingalinga	Kalingalinga Mall Along Alick Nkata Road	260977275332
Pyramid Vet Makeni	Rashid Shopping Complex stand #29389 shop #6 Makeni Rd	260977275332

Livestock Services	Along Pamodzi Drive Showgrounds	260977753948
My Vet	BMM Complex Stand #E5 Mungwi Road	260976956945
AgriVet Africa	Off Kafue Road	260962202849
Chick Plus Makeni	Stand#47/3/396A Along Makeni Road	260979350000
Tiki Agro	Bauleni Lusaka	260965827723
Forever Advancing Agro	Chilenje Market	260977881967
Cedar Agro	Kamangu Shops #2 Along Mumbwa Road	260977224666
Chickmar Enterprise	Value Village Complex Shop #10 Along Great East Road	260966728807
F.A Chicks Chilanga	Chilanga	260966739644
ATS Retail Makeni	Stand# Off Kafue Road Opp Lamise Investments	260975745970
Grandeur Enterprise	Chaisa Along Great North Road	260974751422
Farmers Animal Feed	Kamwala	260955888824
Utendi Enterprises	Zingalume	260972153941
Chitengi Ent	Sangalala	260954598872
M Stanley Innovation	Foxdale Along Zambezi Road	260977884228
M Stanley Innovation	Ngwerere	260977884228
YZ General Dealers	Matero	260963796066
Hami General Dealers	Kafue Opp Chokoswe Primary	260973101876
Hami General Dealers	Chirundu Along Chiyawa Road Opposite Taxi Rank	260971168866
Latafa Agro Chalala	Chalala	260972035037
AgriServe Agro	Showgrounds Opposite Members Pavillion	260969787272
African Agrovet	Off Lumumba Road	260763301431

#### RESELLERS IN EASTERN PROVINCE

Zaulimi Agric Chipata	Kamina Streets Down Shops Stand #515	260977454200
Comaco Chipata	Chipata	260979646477
ATS Retail Katete	Katete Trade Center Stand#842 Mozambique RD Next to Pangwe Motel	
260977145960		
ATS Retail Petauke	Petauke Trade Center Stand#2508 Omelo Mumba Road Near Chikowa Lodge	
260977128564		
ATS Retail Nyimba	Nyimba Trade Center Along Great East Road	260961198512
ATS Retail Lundazi	Lundazi Genery Stand#1116 Off Chama Road Near Dunda Compound	260977988447
MC Sangwani Katete	Katete	260966996195
MC Sangwani Petauke	Petauke	260966996195
MC Sangwani Sinda	Sinda	260966996195
MC Sangwani Nyimba	Nyimba	260966996195

#### RESELLERS IN SOUTHERN PROVINCE

ATS Retail Monze Highview Shopping Complex Opposite	Monze Council along L/stone Road	260972448470
Maz Agrovet (HW Enterprise)	Mazabuka Fashions Stand 70 Shop 4 next to Local Bus Stop Main Street	260977864174
Acrolivestock (Acropolis Monze)	Monze Town Along Lstone Road	260967490038
Farmarama Choma	Stand# 346 Along L/Stone Road Next to Mutupa Milling	260962220600
Cassia Agro	Monze	260977563047
Griffins Services	Chikankata	260964587158
Griffins Services	Mazabuka	260964587158
Griffins Services	Namwala	260960283616
Remote Access	Maamba	260955881383

#### RESELLERS IN CENTRAL PROVINCE

Mukango Agro Kapiri	Stand #497 Along Great North Road	260971771330
Farmarama Kapiri	Stand# 1 Along Great North Road Opp Main Bus Station	260962220651
Mumbwa Agro	Cashman Complex After Pep	260969871719
Farmarama Mumbwa	Farmarama Ltd Stand# 251 Old Kabwe Road	260978604340
Latafa Agro Kabwe	Kabwe	260972035037

#### AVIAN VENTURES OUTLETS

Kmb	Crn of Nyerere & Eshowe RD	260967794211
Mufulira	Crn of Buteko & Chachacha	260962074759
Chingola	Chingola	260967648673
Chililabobwe	2nd Class Bus Stop	260962020132
Solveze	Main Rd Next to CAT Offices	260969788115
Kalulushi	Kabwe St Near Main Bus Stop	260969529301
Av Mansa Shop	Plot #1 President Ave	260962103221
Kitwe Wusakile	Kitwe Wusakile	260962391113
Kitwe Chimwemwe	Kitwe Chimwemwe	260967255640
Lumwana	Lumwana	260962904852
Ndola Town Centre	Ndola Town Centre	260962887488
Ndola Masala	Ndola Masala	260962904150
Luanshya	Luanshya	260962904881
Chambeshi	Chambeshi	260960775208
Lumwana Kalumbila	Kalumbila	260769921160
Luangwa	Kitwe	260966451245
Kasempa	Kasempa	260966451245
Samfya	Samfya	260966451245
Kawama	Kitwe	260966451245
Chamboli	Chamboli	260966451245
Kitwe Zamtan	Kitwe	260966451245
Kitwe Main Depot	Kitwe	260966451245

#### RESELLERS IN COPPERBELT PROVINCE

Lungama Chamboli	Chamboli	260977218576
Lungama Mokambo	Mokambo	260977218576
Lungama Mpatamatu	Mpatamatu	260977218576
Lunguma Mufulira	Mufulira	260977218576
Swinney Ent	Kitwe	260977820220
Wonderfields	Riverside Kitwe	260966926970
Ts Agro	Luanshya Town	260965176150
J-lizor	Kitwe Chimwemwe	260966308168
Greenbud Services	Natwange Street East Kitwe Ndeke	260966058480
John Livadias	Kasumbales Market	260977755110

#### RESELLERS IN WESTERN PROVINCE

Patmans Business Solution	Senanga New Market Next Legetta Bakery	260963884261
Vines Agro Shop	Sesheke	260977523341
Patina MP Ent	Kaoma	260967569211

#### RESELLERS IN MUCHINGA PROVINCE

Three Brothers Investment		
Along Great North Road Near Atlasmark Bank Nampluma Chinsali		260979566304
MB Agro	Chinsali	260979484201
Zhanji Agro	Mbala	260963445242
Swift Hornet	Nakonde	260975239525

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