

Product Manual



USER GUIDANCE
INCLUDED



BACKBONE
EAST AFRICA



Introduction

ABOUT US

Backbone Feed (East Africa) has 3 operations respectively located in Tanzania, Kenya, and Uganda. Founded in 1995 in China, its parent company, Backbone Agricultural and Animal Husbandry Science and Technology Group, is a multinational corporation specialized in feed production, animal husbandry, and fermentation biotechnology.

- Nearly 30 years of experience in feed production
- Over 30 subsidiaries in China and Africa
- Achieved 1.4 billion USD of annual feed output
- Ranked in top 50 feed producers in the world



Contents

Introduction

ABOUT US, CONTENTS

02-03

Broiler Feed

*510 STARTER, 511S SUPER
GRWOER, 511 GROWER,
513 FINISHER*

04-11

Layer Feed

*521 STARTER, 522 GROWER,
524 PEAK PHASE*

12-17

Pig Feed

*551 STARTER, 552 GROWER,
553 FINISHER*

18-23

Tilapia Feed

*740 STARTER, 738 STARTER,
735 GROWER, 730L GROWER,
730 FINISHER*

24-33

Breeding Guidance

*BROILERS, LAYERS,
CHICKEN DIARRHEA*

34-43

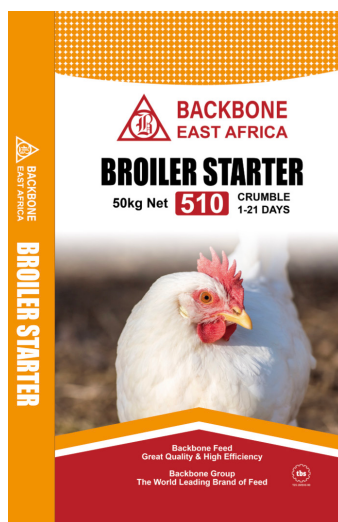


510 Broiler Starter

SUITABLE FOR CHICKS AGED 1-21 DAYS



This product is easy to be digested and absorbed, produced with world-class equipment, advanced production technology, and high-quality raw materials. This feed uses a scientifically formulated, nutrient-rich blend with exclusive broiler premixes to ensure rapid growth, high digestibility, and enhanced palatability, significantly improving feed conversion rates. Its design further enhances disease resistance, boosts immune function, and increases survival rates in broiler starters through optimal nutritional-health synergies.



Breeding Recommendations

1. The temperature control directly affects the health and growth performance of broilers and feed utilization.

Age of Broiler	Room temperature
1-2 days	34°C
3-7 days	32-33°C
8-14 days	30-31°C
15-21 days	27-29°C

2. During brooding period, humidity should be controlled at 65-70%. Regular watering and disinfection are also necessary.

3. For chicks aged 1-7 days, it is suggested to perform 23 hours of continuous light, 1 hour dark (anti-stress); the light can be based on natural light at 8-21 days of age.

4. It is needed to maintain suitable temperature with proper ventilation. The ammonia concentration should be less than 10 ppm, and no smoke or dust.

5. Immunization is very important. Chicken fleas must be prevented at 0-7 days of age, while Newcastle disease and infectious bronchitis should be controlled at 8-21 days of age.

6. The feed can be fed directly without adding any additives.

7. It is best to provide 20°C water during the brooding stage and glucose can be properly added.

8. The feed should be stored in a cool, ventilated and dry place, and be protected from moisture.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Calcium	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
22.0	8.0	6.0	0.9-1.2	0.73	0.3-0.8	1.2	12.5



Bidhaa hii ni rahisi kumegenywa na kufyonzwa, imetengenezwa kwa vifaa bora zaidi dunia, kwa teknolojia ya juu kabisa katika maendeleo na pia malighafi yenye kiwango cha juu kabisa cha ubora zimetumika. Chakula hiki kinatumia mchanganyiko tajiri wa virutubisho ulioandaliwa kisayansi pamoja na viungo vya pekee vya kuku wa nyama ili kuhakikisha ukuaji wa haraka, umeng'enywaji mzuri, na radha bora, huku kikiboresha sana viwango vya uongofu wa chakula. Ubunifu wake unaongeza kinga dhidi ya magonjwa, unaongeza utendaji wa kinga ya mwili, na kuongeza viwango vya uhai katika vifaranga vya kuku wa nyama kupitia ushirikiano bora wa lishe na afya.



Mapendekezo ya Ufugaji

1. Uthibiti wa joto huathiri moja kwa moja ukuaji wa vifaranga na utumiaji wa chakula.

Umri wa kuku wa nyama	Jotoridi
1-2 days	34°C
3-7 days	32-33°C
8-14 days	30-31°C
15-21 days	27-29°C

2. Katika kipindi chote cha ukuaji, unyevu uthibitiwe katika viwango vya asimilia 65-70%, umwagiliaji wa maji mara kwa mara na kupuliza dawa ni muhimu.

3. Katika Umri wa siku 1-7, inapendekezwa mwanga uwepo kwa muda wa masaa 23, na giza kwa muda wa saa 1. Mwanga wa asili unaweza kutumika katika siku ya 8-21.

4. Ni muhimu kuthibiti jotoridi sahihi na hewa ya kutosha, mchanganyiko wa annnonia uwepo kwa kiwango chini ya 10 ppm na kusiwe na moshi au vumbi.

5. Chanjo ya kisayansi ni muhimu sana. Inabidi kuzuia viroboto vya kuku katika siku za umri wa 0 hadi 7, wakati ugonjwa wa Newcastle na bronchitis ya kuambukiza inapaswa kudhibitiwa kuanzia siku ya 8 hadi 21 za umri.

6. Chakula kinaweza kulishwa moja kwa moja bila kuongeza virutubisho vingine.

7. Katika kipindi cha ukuaji, ni bora kuwapa maji kwa karibu nyuzi 20°C na kiasi kinachofaa cha glukosi.

8. Chakula kihifadhiwe katika eneo lenye ubaridi, penye hewa na eneo kavu, weka mbali na unyevu.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

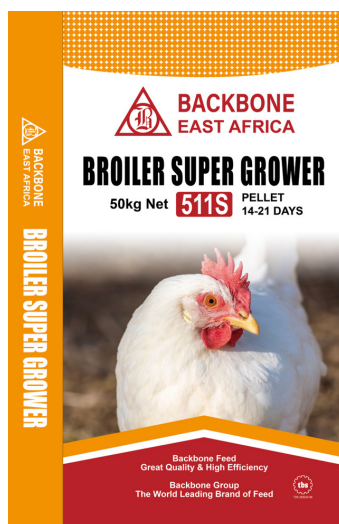
Protini Ghafi ($\geq$)	Majivu Machafu ($\leq$)	Nyuzinyuzi Ghafi ($\leq$)	Kalsiamu	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini ($\geq$)	Unyevu ($\leq$)
22.0	8.0	6.0	0.9-1.2	0.73	0.3-0.8	1.2	12.5

511S Broiler Super Grower



SUITABLE FOR CHICKS AGED 14-21 DAYS

This product is rich in various amino acids, vitamins and necessary trace elements for the growth of broiler growers. It has a full range of nutrients to ensure rapid growth of chickens and increase bone and body health.



Breeding Recommendations

1. This stage is important for the growth of broilers. Please avoid alternating cold and hot at this stage. According to the condition of the flock and the outside temperature, the room temperature should be controlled at 26-29°C and the humidity at 60%. The humidity can be controlled by regular sprinkling and fan.
2. Light can be based on natural light. If possible, maintain 6 hours of light and 1 hour of darkness three times a day. Turn on the light when feeding and turn off the light after feeding. Approximately 0.75 watts per square meter is required.
3. Please ventilate properly to maintain suitable temperature. The ammonia concentration should be less than 10 ppm.
4. Please pay attention to the prevention and treatment of coccidiosis and infectious bronchitis. Also pay attention to the intestinal health condition of the broilers.
5. The feed can be fed directly without adding any additives.
6. Drinking water can be tap water or deep well water. The water and feed trough need to be kept clean.
7. The feed should be stored in a cool, ventilated and dry place and be protected from moisture.
8. When you change the feed, the two kinds of feed should be fully mixed and gradually replaced to avoid stress reaction.
9. This product must not be used for ruminants; if there is agglomeration, mildew, etc., please do not feed.

NUTRIENT VALUE COMPOSITION (%)

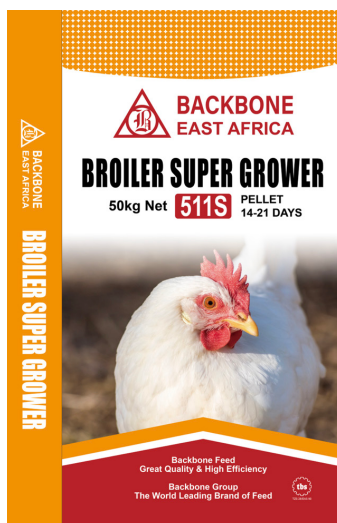
Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Calcium	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
20.0	8.0	7.0	0.7-1.2	0.84	0.3-0.8	1.2	12.5

511S Chakula cha Kukuzia cha Kuku wa Nyama



NI MAALUMU KWA VIFARANGA WA SIKU 14-21

Bidhaa hii ina viwango vikubwa vya amino acides, vitamini na viashiri mbali mbali kwa ukuaji wa kuku wa nyama. Ina aina mbali mbali za virutubisho kuhakiki ukuaji bora wa kwa kuku na kuongeza mifupa na afya ya mwili.



Mapendekezo ya Ufugaji

1. Hatua hii ni muhimu kwa ukuaji wa kuku wa nyama. Tafadhali epuka kupishana joto na baridi katika hatua hii. Kulingana na hali ya kuku na joto la nje, joto la ndani hudhibitiwa saa 26-29 ° C na unyevu hudhibitiwa kwa 60%. Unyevu unaweza kudhibitiwa na vinyunyizio vya kawaida na feni.

2. Mwanga unaweza kutumia mwanga wa asili. Ikiwezekana, kudumisha saa 6 za mwanga na saa 1 za giza mara tatu kwa siku. Washa taa wakati wa kulisha na uzima taa baada ya kulisha. Mwanga wa kiwango cha 0.75 kwa kila mita ya mraba inahitajika.

3. Tafadhali ingiza hewa ipasavyo ili kuhakikisha halijoto inayofaa. Mkusanyiko wa amonia unapaswa kuwa chini ya 10 ppm.

4. Tafadhali makini na kuzuia na matibabu ya coccidiosis na bronchitis ya kuambukiza. Pia zingatia hali ya afya ya matumbo ya kuku wa nyama.

5. Chakula kinaweza kulishwa moja kwa moja bila kuongeza virutubisho vingine.

6. Maji ya kunywa yanaweza kuwa maji ya bomba au maji ya kisima kirefu. Vyombo vya maji na vyombo vya kulishia chakula vinahitaji kuwekwa safi.

7. Chakula kihifadhiwe katika eneo lenye ubaridi, penye hewa na eneo kavu, weka mbali na unyevu.

8. Unapobadilisha malisho, aina mbili za malisho zinapaswa kuchanganywa kabisa na kubadilishwa hatua kwa hatua ili kuondoa mkazo.

9. Bidhaa hii isitumiwe kulishwa wanyama kama n'gombe, mbuzi, n.k; kama kuna uvimbe, fangasi, n.k., tafadhali usilishe.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

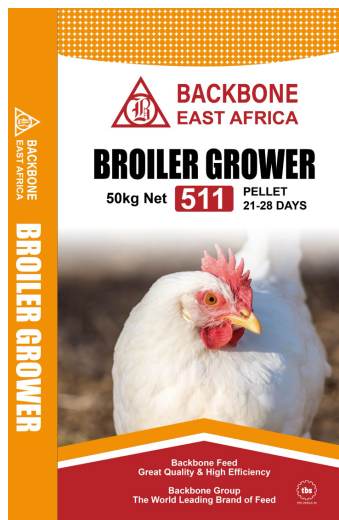
Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Kalsiamu	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
20.0	8.0	7.0	0.7-1.2	0.84	0.3-0.8	1.2	12.5

511 Broiler Grower



SUITABLE FOR BROILERS AGED 21 DAYS - 1 WEEK
BEFORE MARKET AGE

This product is rich in various amino acids, vitamins and necessary trace elements for the growth of broiler growers. It has a full range of nutrients to ensure rapid growth of chickens and increase bone and body health.



Breeding Recommendations

1. This stage is important for the growth of broilers. Please avoid alternating cold and hot at this stage. According to the condition of the flock and the outside temperature, the room temperature should be controlled at 22-26°C and the humidity at 60%. The humidity can be controlled by regular sprinkling and fan.

2. Light can be based on natural light. If possible, maintain 6 hours of light and 2 hours of darkness three times a day. Turn on the light when feeding and turn off the light after feeding. Approximately 0.75 watts per square meter is required.

3. Please ventilate properly to maintain suitable temperature. The ammonia concentration should be less than 10 ppm.

4. Please pay attention to the prevention and treatment of coccidiosis and infectious bronchitis. For chickens aged 25-30 days, pay attention to the prevention and treatment of Newcastle disease and Bursal Disease.

5. The feed can be fed directly without adding any additives.

6. Drinking water can be tap water or deep well water. The water and feed trough need to be kept clean.

7. The feed should be stored in a cool, ventilated and dry place and be protected from moisture.

8. When you change the feed, two kinds of feed should be fully mixed and gradually replaced to avoid stress reaction.

9. This product must not be used for ruminants; if there is agglomeration, mildew, etc., please do not feed.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein ($\geq$)	Crude Ash ($\leq$)	Crude Fiber ($\leq$)	Calcium	Total Phosphorus	Sodium Chloride	Lysine ($\geq$)	Moisture ($\leq$)
19.0	8.0	7.0	0.7-1.2	0.84	0.3-0.8	1.2	12.5

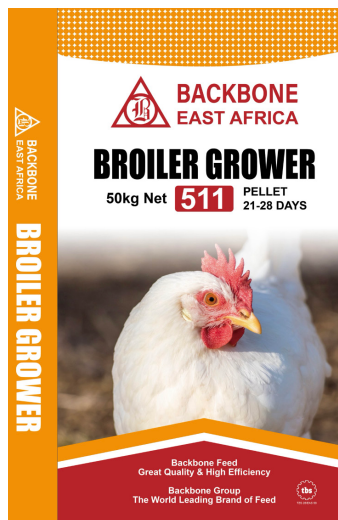
511

Chakula cha Kukuzia cha Kuku wa Nyama



NI MAALUMU KWA KUKU WA NYAMA WA SIKU 21
MPAKA WIKI 1 KABLA YA KUUZWA

Bidhaa hii ina viwango vikubwa vya amino acides, vitamini na viashiri mbali mbali kwa ukuaji wa kuku wa nyama. Ina aina mbali mbali za virutubisho kuhakiki ukuaji bora wa kwa kuku na kuongeza mifupa na afya ya mwili.



Mapendekezo ya Ufugaji

1. Hatua hii ni muhimu kwa ukuaji wa kuku wa nyama. Tafadhali epuka kupishana joto na baridi katika hatua hii. Kulingana na hali ya kuku na joto la nje, joto la ndani hudhibitiwa saa 22-26°C na unyevu hudhibitiwa kwa 60%. Unyevu unaweza kudhibitiwa na vinyunyizio vya kawaida na feni.
2. Mwanga unaweza kutumia mwanga wa asili. Ikiwezekana, kudumisha saa 6 za mwanga na saa 2 za giza mara tatu kwa siku. Washa taa wakati wa kulisha na uzima taa baada ya kulisha. Mwanga wa kiwango cha 0.75 kwa kila mita ya mraba inahitajika.
3. Tafadhali ingiza hewa ipasavyo ili kuhakikisha halijoto inayofaa. Mkusanyiko wa amonia unapaswa kuwa chini ya 10 ppm.
4. Tafadhali makini na kuzuia na matibabu ya coccidiosis na bronchitis ya kuambukiza. Kwa Kuku wenye umri wa siku 25 mpaka 30, makini na kinga na matibabu ya ugonjwa wa Newcastle na ugonjwa wa Bursal.
5. Chakula kinaweza kulishwa moja kwa moja bila kuongeza virutubisho vingine.
6. Maji ya kunywa yanaweza kuwa maji ya bomba au maji ya kisima kirefu. Vyombo vya maji na vyombo vya kulishia chakula vinahitaji kuwekwa safi.
7. Chakula kihifadhiwe katika eneo lenye ubaridi, penye hewa na eneo kavu, weka mbali na unyevu.
8. Unapobadilisha malisho, aina mbili za malisho zinapaswa kuchanganywa kabisa na kubadilishwa hatua kwa hatua ili kuondoa mkazo.
9. Bidhaa hii isitumiwe kulishwa wanyama kama n'gombe, mbuzi, n.k; kama kuna uvimbe, fangasi, n.k., tafadhali usilishe.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

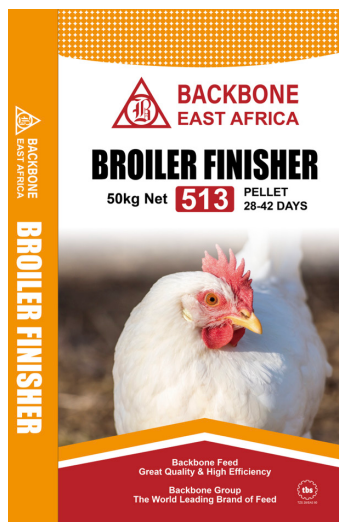
Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Kalsiamu	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
19.0	8.0	7.0	0.7-1.2	0.84	0.3-0.8	1.2	12.5

513 Broiler Finisher



SUITABLE FOR BROILERS AGED WITHIN 1 WEEK
BEFORE MARGET AGE

This product has high absorption and utilization rate, low material consumption, strong disease resistance, and stable and reliable quality. It can meet the nutritional needs of broiler finishers and enable farmers to obtain higher profits.



Breeding Recommendations

1. This period is the rapid growth period of broilers, and the temperature should be controlled at 21-22°C. In summer, it is necessary to protect the chickens from high temperature and heat stroke.
2. The humidity should be controlled at 50-60%. It is needed to prevent low temperature and high humidity at night.
3. The light increases with the age, and it is restored to 23 hours continuous light and 1 hour dark at 7 days before the slaughter.
4. It is needed to maintain proper temperature and ventilation. The ventilation volume of one broiler finisher is 30-50 cubic meters per hour in summer.
5. Pay attention to the prevention and treatment of E. coli and kidney disease.
6. The feed can be fed directly.
7. Make sure the chickens drink adequate water.
8. The feed should be stored in a cool, ventilated, dry place and be protected from moisture.
9. When the feed is changed, the two kinds of feed should be fully mixed and gradually reloaded to avoid stress reaction.
10. This product must not be used for ruminants; if there is agglomeration, mildew, etc., please do not feed.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Calcium	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
18.0	8.0	7.0	0.6-1.2	0.70	0.3-0.8	1.1	12.5

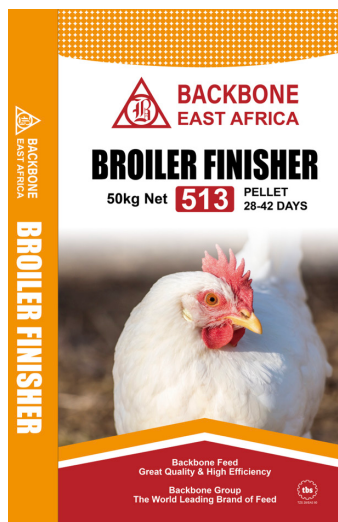
513

Chakula cha Mwisho cha Kuku wa Nyama



NI MAALUMU KWA KUKUWANYAMA NDANI YA WIKI 1 KABLA YA KUUZWA

Bidhaa hii ina kiwango cha juu cha kunyonya na matumizi, matumizi ya chini ya nyenzo, upinzani mkali wa magonjwa, na ubora thabiti na wa kuaminika. Inaweza kukidhi mahitaji ya lishe ya vimaliza kuku wa nyama na kuwawezesha wafugaji kupata mapato makubwa zaidi.



Mapendekezo ya Ufugaji

1. Kipindi hiki ni kipindi cha ukuaji wa haraka wa broilers. Joto inapaswa kudhibitiwa kwa 21-22 ° C. Katika majira ya joto, ni muhimu kuwakinga kuku na joto kali na mfadhaiko wa joto.
2. Hali ya unyevu idhibitiwe katika asilimia 50 mapaka 60. Ni muhimu kuzuia joto dogo na kiwango kikubwa cha juu cha unyevu wakati wa usiku.
3. Mwanga huongezwa kadiri ya umri, na hurejeshwa kwa muda wa masaa 23 ya mwanga na saa moja la giza kwa muda wa siku 7 kabla ya kuchinjwa.
4. Ni muhimu kuthibiti joto sahihi na kiwango sahihi cha hewa. Kiwango cha hewa kwa kuku mmoja wa nyama anaelekea kuchinjwa ni 30 mpaka 50 kwa mita moja ya mraba kwa saa katika majira ya joto.
5. Makini na kuzuia na matibabu ya E. koli na ugonjwa wa figo.
6. Chakula hiki kinaweza kulishwa moja kwa moja.
7. Hakikisha kuku wa nyama wanakunywa maji ya kutosha.
8. Chakula kihifadhiwe katika eneo lenye ubaridi, penye hewa na eneo kavu, weka mbali na unyevu.
9. Unapobadilisha malisho, aina mbili za malisho zinapaswa kuchanganywa kabisa na kubadilishwa hatua kwa hatua ili kuondoa mkazo.
10. Bidhaa hii isitumiwe kulishwa wanyama kama n'gombe, mbuzi, n.k; kama kuna uvimbe, fangasi, n.k., tafadhali usilishe.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

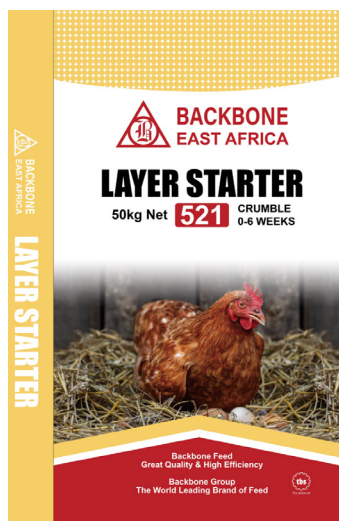
Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Kalsiamu	Jumla ya Fosforasi (≥)	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
18.0	8.0	7.0	0.6-1.2	0.70	0.3-0.8	1.1	12.5

521 Layer Starter

SUITABLE FOR CHICKS AGED 0-6 WEEKS



This nutrient -rich product can promote the rapid growth of chicks, enhance their bodies' immunity and resistance to disease, and increase their survival rate.



Breeding Recommendations

1. The brooding house should be thoroughly cleaned and disinfected before use.

2. House temperature control

Age of Chick

0-3 days

4-7 days

>7 days

House temperature

33-36°C

31-32°C

Reducing by 2-3°C per week until 21°C

3. At 0-7 days of age, the relative humidity in the house should be controlled at 60%. After that, the humidity should be appropriately adjusted according to the condition of the chicks so that the chicks feel comfortable.

4. Give 22 hours of light at 0-7 days of age to help the chicks find feed and water and to prevent stress, with light intensity at 30-50 lux. Then, slowly reduce light by 1.5 hours per week. From 2 to 4 weeks of age, light intensity should be 25 lux. From 4 to 6 weeks, light intensity should be 10-15 lux.

5. Maintain suitable temperature with proper ventilation in the brooding house.

6. Clean the drinker every day during the brooding period, and keep the water temperature at 10-20°C.

7. Debeaking is carried out at 7-10 days of age, while trimming beak at 6 weeks or 12-14 weeks of age.

8. Timely immunization is necessary to prevent the occurrence of infectious diseases.

9. The feed can be fed directly without adding any additives.

10. Feed should be stored in a cool, ventilated and dry place, and be protected from moisture.

11. The feed color might be somewhat different from batch to batch. Please use at ease as it does not affect the quality.

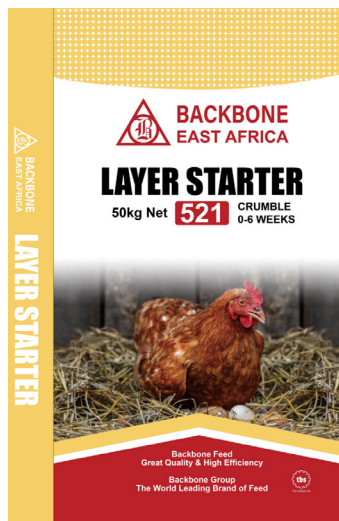
NUTRIENT VALUE COMPOSITION (%)

Crude Protein	Crude Ash (≤)	Crude Fiber (≤)	Calcium	Total Phosphorus (≥)	Sodium Chloride	Lysine (≥)	Moisture(≤)
18.0	8.0	6.0	0.6-1.2	0.75	0.3-0.8	1.1	12.5

Chakula cha Kuanzia cha Kuku wa Mayai

NI MAALUMU KWA VIFARANGA WENYE UMRI WA WIKI 0-6

Bidhaa hii ina virutubisho muhimu kwa ajili ya kuongeza ukuaji wa vifaranga kwa haraka, kuongeza kinga yao ya mwilli, kuwalinda na magonjwa na kuongeza kiwango chao cha uhai.



Mapendekezo ya Ufugaji

1. Banda la vifaranga linatakiwa kufanyiwa usafi na kupulizwa dawa ya kuaa wadudu.

2. Uthibiti wa joto maalumu kwa ajili ya banda la vifaranga

Umri wa Vifaranga	Joto ridi katika banda la kuku
Siku 0-3	33-36°C
Siku 4-7	31-32°C
Zaidi ya siku >7	Punguza kwa 2-3°C kwa wiki mpaka 21°C

3. Katika umri wa siku 0-7, unyevu ndani ya banda unatakiwa uwe katika kiwango cha asilimia 60. Baada ya hapo kiwango cha unyevu kinatakiwa kubadilishwa kadiri ya hali ya vifaranga wanavyoweza kujisikia vizuri.

4. Wape masaa 22 za mwanga katika umri wa siku 0-7 ili kuwasaidia vifaranga kupata malisho na maji na kuzuia msongo wa mawazo,

kwa mwanga wa 30-50 lux. Kisha, polepole kupunguza mwanga hadi masaa 1.5 kwa wiki. Kuanzia umri wa wiki 2 mpaka 4, kiwango cha mwanga kinapaswa kuwa 25 lux. Kutoka kwa wiki 4 mpaka 6, kiwango cha mwanga kinapaswa kuwa 10-15 lux.

5. Tafadhali Ingiza hewa ipasavyo ili kuhakikisha halijoto inayofaa katika banda la vifaranga.

6. Njia za maji zinatakiwa kuoshwa kila siku kipindi chote cha ukuaji na jotoridi la maji linatakiwa liwe katika viwango vya 10-20°C.

7. Upunguzwaji wa midomo hufanyika katika umri wa siku 7 mpaka 10, na katika umri wa wiki 6 au wiki 12 mpaka 14 sehemu ya juu na chini yam domo hukatwa.

8. Chanjo kwa wakati sahihi ni lazima ili kuzuia magonjwa ya kuambukiza.

9. Chakula kinaweza kulishwa moja kwa moja bila kuongeza virutubisho vingine.

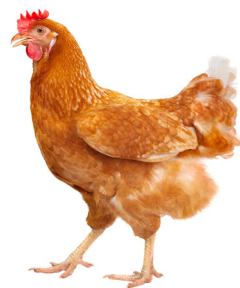
10. Chakula kihifadhiwe katika eneo lenye ubaridi, penye hewa na eneo kavu, weka mbali na unyevu.

11. Rangi ya chakula inaeweza kuwa tofauti kulingana na kundi la mzigo. Tafadhali tumia bila shida kwa sababu haiathiri ubora.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi	Majivu Machafu ($\leq$)	Nyuzinyuzi Ghafi ($\leq$)	Kalsiamu	Jumla ya Fosforasi ($\geq$)	Kloridi ya Sodiamu	Lisini ($\geq$)	Unyevu ($\leq$)
18.0	8.0	6.0	0.6-1.2	0.75	0.3-0.8	1.1	12.5

522 Layer Grower



SUITABLE FOR LAYER PULLET AGED 6-17 WEEKS

This product contains adequate nutrition. After being fed, pullets will grow with high uniformity, develop even and robust bodies, and smoothly enter into the laying period.



Breeding Recommendations

1. The layer pullet grower feed can be replaced with layer peak phase feed only after the replacement pullets weight reach the standard when entering the laying period.
2. The layer growers were weighed by an electronic scale and calculated for uniformity.
3. It is needed to expand the group in a timely manner to maintain the appropriate density.
4. Temperature should be controlled at around 21°C and humidity at 40-60. Please make adjustment according to the actual conditions of the flock.
5. The light duration should be 10-12 hours, and the intensity should be 10-15 lux; reducing the light duration can prevent the precocious puberty and promote the growth and development of replacement pullet to increase the early egg weight.
6. Timely immunization is necessary to prevent the occurrence of infectious diseases.
7. Collect blood at an appropriate time to assess immunity and disease epidemic.
8. The feed can be fed directly.
9. Provide adequate drinking water. Water and water trough should be kept clean.
10. Change feed gradually. To avoid stress response, the transition period should be 4-7 days.
11. Feed should be stored in a cool, ventilated, dry and be protected from moisture.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein	Crude Ash(≤)	Crude Fiber(≤)	Calcium	Total Phosphorus	Sodium Chloride	Lysine(≥)	Moisture(≤)
14.0	10.0	7.5	0.6-1.4	0.73	0.3-0.8	1.6	12.5

522

Chakula cha Kukuzia cha Kuku wa Mayai



NI MAALUMU KWA KWA VIFARANGA WENYE UMRI WA WIKI 6-17

Bidhaa hii ina lishe ya kutosha. Baada ya kulishwa, kuku wadogo watakua na usawa wa juu, kukuza miili hata na yenye nguvu, na kuingia katika kipindi cha kutaga vizuri.



Mapendekezo ya Ufugaji

1. Chakula cha kukuzia kuku wa mayai kinaweza kubadilishwa na chakula cha kuku wa mayai walio katika kilele cha utagaji mara baada tu ya kuku kufikia uzito sahihi wakati wanaingia kipindi cha utagaji.
2. Kuku wa mayai walipimwa kwa kutumia mzani wa ki-eletroniki na kukokotoa usawa wao.
3. Ni muhimu kuongeza ukubwa wa kundi katika wakati sahihi ili kuhakikisha ujazo sahihi.
4. Joto linatakiwa kuthibitiwa katika kiwango cha nyuzi joto 12 na unyevu wa asilimia 40 mpaka 60. Tafadhali fanya marekebisho kulingana na hali halisi za kundi la kuku.
5. Muda wa mwanga unapaswa kuwa masaa 10-12 na kiwango cha mwanga kinatakiwa kuwa katika ukali wa 10-15 lux; kupunguza kiwango cha mwanga kwa wakati inazuia balehe ya mapema na kuchochea ukuaji na maendeleo ya ukuaji wa kuku pia huongeza uzito wa mayai.
6. Chanjo kwa wakati sahihi ni muhimu kwa ajili ya kuzuia magonjwa ya kuambikiza.
7. Kwa wakati sahihi damu hukusanywa ili kupima uwezo wa teknolojia ya chanjo na kiwango cha kusambaa cha magonjwa.
8. Chakula kinaweza kulishwa moja kwa moja.
9. Inahitajika kuwepo na maji ya kunywa yakutosha. Maji na bomba za maji vinatakiwa kuwa visafi.
10. Mabadiliko ya ulishaji yatakua kwa hatua. Kipindi cha mpito ni siku 4 mpaka 7 ili kuzuia mfadhaiko.
11. Chakula kihifadhiwe eneo lenye ubaridi, hewa na kavu, pia kiwekwe mbali na unyevu.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

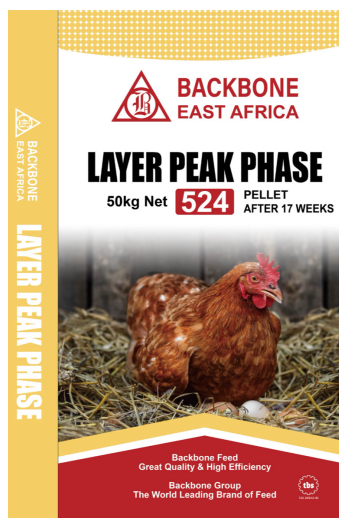
Protini Ghafi	Majivu Machafu ($\leq$)	Nyuzinyuzi Ghafi ($\leq$)	Kalsiamu	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini ($\geq$)	Unyevu ($\leq$)
14.0	10.0	7.5	0.6-1.4	0.73	0.3-0.8	1.6	12.5

524 Layer Peak Phase



SUITABLE FOR LAYERS AGED ABOVE 17 WEEKS

According to the energy and protein requirements during egg-laying peak phase, the feed adopts the scientific formula and the company's special premixes to ensure the best quality. The use of this product can result in an increase in egg weight, a significant reduction in incidence and mortality, and a stable peak egg production period of up to 10 months. The ingredients of 524 and 524L are the same. The only difference is that 524 is pellets and 524L is mash.



Breeding Recommendations

1. During this period, the temperature of the chicken house should be increased by 1°C every two weeks until it reaches 25°C.
2. From the 16th week, the light time should be gradually increased until it reaches 16 hours at 30 weeks of age and the light intensity should be kept at 30 lux.
3. Humidity should be set at 40-60 and please pay attention to the ventilation.
4. It is necessary to weigh eggs every 2 weeks before 35 weeks of age and every 5 weeks after 35 weeks of age. Please start controlling the egg weight when the egg weight reaches within 2 grams of the target egg weight.
5. The laying hens should be weighed regularly to control for uniformity.
6. Timely immunization is necessary to prevent the occurrence of infectious diseases.
7. The feed can be used directly without adding any additives.
8. Provide adequate drinking water. Water and trough should be kept clean.
9. Change feed gradually. To avoid stress response, the transition period should be 4-7 days.
10. The feed color might be somewhat different from batch to batch. Please use at ease as it does not affect the quality.
11. Feed should be stored in a cool, ventilated and dry place, and be protected from moisture.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein	Crude Ash(≤)	Crude Fiber(≤)	Calcium	Total Phosphorus	Sodium Chloride	Lysine(≥)	Moisture(≤)
15.0	15.0	7.0	3.5-4.5	0.73	0.3-0.8	0.6	12.5

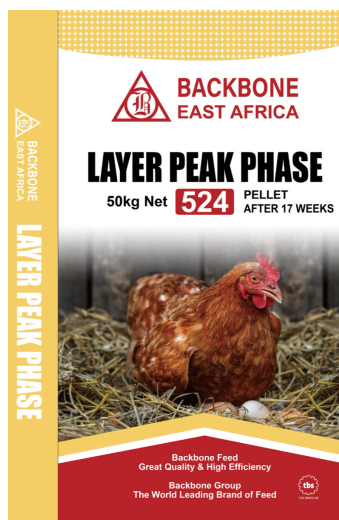
524

Chakula cha Kuku Walio katika Kilele cha Utagaji



NI MAALUMU KWA KUKU WA MAYAI WENYE UMRI WA ZAIDI YA WIKI 17

Kulingana na mahitaji ya nishati na protini wakati wa awamu ya kilele cha uwekaji yai, malisho huchukua fomula ya kisayansi na michanganyiko maalum ya kampuni ili kuhakikisha ubora bora. Kutumia bidhaa hii kunaweza kusababisha ongezeko la uzito wa mayai, kupungua kwa matukio na vifo vya kuku, na kipindi thabiti cha kilele cha uzalishaji wa mayai mpaka muda wa miezi 10. Virutubisho vya bidhaa 524 na bidhaa 524L ni sawa. Tofauti pekee ni kwamba 524 ni pellets na 524L ni mash.



Mapendekezo ya Ufugaji

1. Katika kipindi hiki, joto la banda la kuku linapaswa kuongezeka kwa 1°C kila wiki mbili hadi kufikia 25°C .
2. Kutoka wiki ya 16, wakati wa mwanga unapaswa kuongezeka hatua kwa hatua hadi kufikia saa 16 katika umri wa wiki 30 na kiwango wa mwanga unapaswa kuwekwa kwa 30 lux.
3. Kiwango cha unyevu kinatakiwa kuwa kwa asimilia 40 mpaka 60. Tafadhali kuwa makini na uingizaji wa hewa kwenye banda la kuku.
4. Ni lazima kupima mayai kila baada ya wiki 2 kabla ya wiki 35 za umri na kila wiki 5 baada ya wiki 35 za umri. Tafadhali kuanza kudhibiti uzito wa mayai wakati uzito wa mayai unafikia ndani ya gramu 2 za uzito wa mayai lengwa.
5. Kuku wa mayai wanapaswa kupimwa mara kwa mara ili kudhibiti usawa.
6. Chanjo kwa wakati sahihi ni muhimu kwa ajili ya kuzuia magonjwa ya kuambikiza.
7. Chakula kinaweza kulishwa moja kwa moja bila kuongeza virutubisho vingine.
8. Inahitajika kuwepo na maji ya kunywa yakutosha. Maji na bomba za maji vinatkiwa kuwa visafi.
9. Mabadiliko ya ulishaji yatakua kwa hatua. Kipindi cha mpito ni siku 4 mpaka 7 ili kuzuia mfidhaiko.
10. Rangi ya chakula inaeweza kuwa tofauti kulingana na kundi la mzigo. Tafadhali tumia bila shida kwa sababu haiathiri ubora.
11. Chakula kihifadhiwe eneo lenye ubaridi, hewa na kavu, pia kiwekwe mbali na unyevu.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

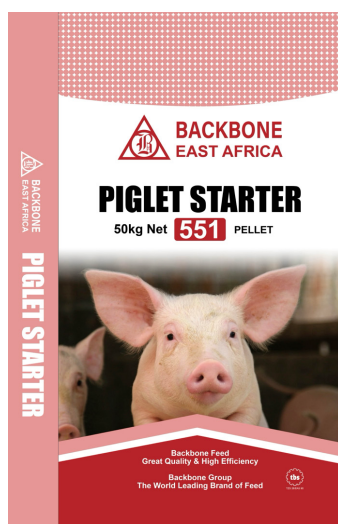
Protini Ghafi	Majivu Machafu ($\leq$)	Nyuzinyuzi Ghafi ($\leq$)	Kalsiamu	Jumla ya Fosforasi ($\geq$)	Kloridi ya Sodiamu	Lisini ($\geq$)	Unyevu ($\leq$)
15.0	15.0	7.0	3.5-4.5	0.73	0.3-0.8	0.6	12.5

551 Piglet Starter



**SUITABLE FOR PIGLETS AGED 35-75 DAYS OR
WEIGHED 10-25 KG**

The feed at this stage focuses on providing more nutrition to the piglets and helping them resist stress after weaning. It aims to reduce the likelihood of weight loss and diarrhea to death caused by stress. This product contains strengthened and complete nutrients that can facilitate the growth of piglets' immune system and enhance their immune function. It also helps with the development of intestinal villi and promotes intestinal health, thereby laying a strong foundation for piglets' later growth. Finally, with balanced nutrition, it can achieve a high feed conversion ratio.



Breeding Recommendations

1. The feed can be used directly.
2. It is recommended to feed piglets in small amounts and multiple times. Do not feed too much at one time. Increase the amount of feed at a proper pace according to the growth rate of the piglets to avoid excessive feeding.
3. Keep the drinking water and the breeding environment clean.
4. The daily water intake of weaned piglets weighed 10 kg is 0.67-2.5 liters; the daily water intake of pigs weighed 25 kg is 1.9-4.5 liters.
5. To ensure the best feed conversion ratio, it is recommended to keep the temperature at 18-24°C at this stage. The most suitable temperature for sows is 18°C.
6. The feed should be stored in a dry, cool and clean place.

Age	Weight / Pig	Daily Feed Intake / Pig	Total Feed Intake / Pig*
4 weeks	8 kg	0.45 kg	6.3 kg
6 weeks	14 kg	0.76 kg	16.9 kg
8 weeks	21 kg	1.10 kg	32.3 kg
10 weeks	30 kg	1.40 kg	51.8 kg

* The total amount of feed taken by one pig up until this point.

NUTRIENT VALUE COMPOSITION (%)

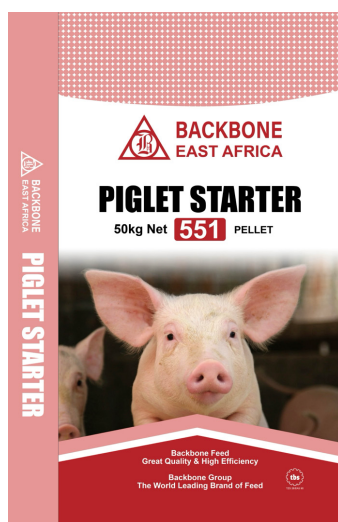
Crude Protein (≥)	Crude Ash (≤)	Crude Fiber(≤)	Calcium (≥)	Total Phosphorus (≥)	Sodium Chloride	Lysine	Moisture (≤)
18.0	5.5	3.6	0.70	0.58	0.45	1.2	12.5

Chakula cha Kuanzia cha Vitoto vya Nguruwe



NI MAALUMU KWA VITOTO VYA NGURUWE WENYE UMRI WA SIKU 35-75 AU UZITO WA KILO 10-25

Katika kipindi hiki, chakula kinazingatia kutoa lishe zaidi kwa nguruwe na kuwasaidia kupinga msongo baada ya kuachishwa kunyonya. Kinalenga kupunguza uwezekano wa kupoteza uzito, kuhara, na kifo kinachosababishwa na majibu ya msongo. Bidhaa hii ina virutubisho vilivyoimarishwa na kamili ambavyo vinaweza kusaidia ukuaji wa mfumo wa kinga wa nguruwe na kuongeza kazi yao ya kinga. Pia inasaidia maendeleo ya vijitete vya matumbo na kukuza afya ya matumbo, hivyo kuweka msingi imara kwa ukuaji wa baadaye wa nguruwe. Hatimaye, kwa lishe iliyosawazika, inaweza kufikia kiwango cha juu cha ufanisi wa matumizi ya chakula.



Mapendekezo ya Ufugaji

1. Chakula kinaweza kulishwa moja kwa moja.
2. Inashauriwa kulisha nguruwe kwa kiasi kidogo na mara nyingi. Usile sana kwa wakati mmoja. Ongeza kiasi cha chakula kwa kasi inayofaa kulingana na kasi ya ukuaji wa nguruwe ili kuepuka kulisha kupita kiasi.
3. Weka maji ya kunywa na mazingira ya uzazi katika hali ya usafi.
4. Ulaji wa maji wa kila siku wa nguruwe walioachishwa wenye uzito wa kilo 10 ni lita 0.67-2.5; ulaji wa maji ya kila siku ya nguruwe yenye uzito wa kilo 25 ni lita 1.9-4.5.
5. Ili kuhakikisha uwiano bora wa uongofu wa malisho, inashauriwa kuweka hali ya joto katika 18-24 ° C katika kipindi hiki. Joto linalofaa zaidi kwa nguruwe jike ni 18°C.
6. Chakula kihifadhiwe mahali pa kavu, baridi na safi.

Umri	Uzito / Nguruwe	Ulaji wa Chakula / Siku	Jumla ya Ulaji wa Chakula*
wiki 4	kilo 8	kilo 0.45	kilo 6.3
wiki 6	kilo 14	kilo 0.76	kilo 16.9
wiki 8	kilo 21	kilo 1.10	kilo 32.3
wiki 10	kilo 30	kilo 1.40	kilo 51.8

* Jumla ya kiasi cha chakula kilichochukuliwa na nguruwe mmoja hadi hatua hii.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

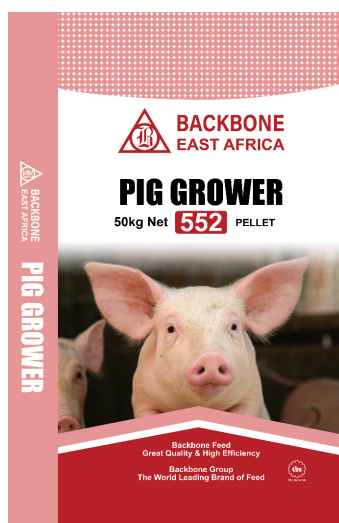
Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Kalsiamu (≥)	Jumla ya Fosforasi (≥)	Kloridi ya Sodiamu	Lisini	Unyevu (≤)
18.0	5.5	3.6	0.70	0.58	0.45	1.2	12.5

552 Pig Grower



SUITABLE FOR PIGS AGED 75-130 DAYS OR
WEIGHED 25-75 KG

The use of this product can make pigs grow faster, reduce feed-to-meat ratio, increase carcass lean percentage, and improve pigs' body shape. This product focuses on the relationship between immunity and nutrition. It includes sufficient vitamins and other nutrients to improve the immune level and the disease resistance of pigs.



Breeding Recommendations

1. This feed can be used directly.
2. It is recommended to feed pigs in small amounts and multiple times. Do not feed too much at one time. Increase the amount of feed at a proper pace according to the growth rate of the piglets to avoid excessive feeding.
3. Keep the drinking water and the breeding environment clean.
4. The daily water intake of grower fattening pigs weighed 50 kg is 3.0-6.8 liters.
5. To ensure the best feed conversion ratio, it is recommended to keep the temperature at 17-22°C at this stage. The most suitable temperature for sows is 18°C.
6. The feed should be stored in a dry, cool and clean place.

Age	Weight / Pig	Daily Feed Intake / Pig	Total Feed Intake / Pig*
12 weeks	40 kg	1.75 kg	77 kg
14 weeks	52 kg	2.03 kg	107.5 kg
16 weeks	64 kg	2.33 kg	140.1 kg
18 weeks	76 kg	2.60 kg	176.5 kg

* The total amount of feed taken by one pig up until this point.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Calcium (≥)	Total Phosphorus (≥)	Sodium Chloride	Lysine	Moisture (≤)
15.0	5.5	3.6	0.69	0.62	0.42	1.0	12.5

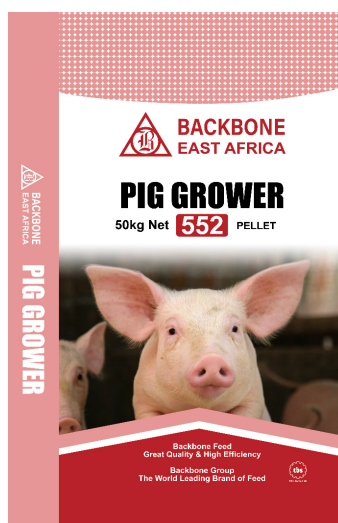
552

Chakula cha Kukuzia cha Nguruwe



NI MAALUMU KWA NGURUWE WENYE UMRI WA SIKU 75-130 AU UZITO WA KILO 25-75

Matumizi ya bidhaa hii yanaweza kufanya nguruwe kukua haraka, kupunguza uwiano wa chakula kwa nyama, kuongeza asilimia ya nyama ya mafuta kidogo kwenye mzoga, na kuboresha umbo la mwili wa nguruwe. Bidhaa hii inazingatia uhusiano kati ya kinga na lishe. Inajumuisha vitamini vya kutosha na virutubishi vingine kuboresha kiwango cha kinga na uwezo wa nguruwe kupinga magonjwa.



Mapendekezo ya Ufugaji

1. Chakula kinaweza kulishwa moja kwa moja.
2. Inashauriwa kulisha nguruwe kwa kiasi kidogo na mara nyingi. Usile sana kwa wakati mmoja. Ongeza kiasi cha chakula kwa kasi inayofaa kulingana na kasi ya ukuaji wa nguruwe ili kuepuka kulisha kupita kiasi.
3. Weka maji ya kunywa na mazingira ya uzazi katika hali ya usafi.
4. Ulaji wa maji wa kila siku wa nguruwe walioachishwa wenye uzito wa kilo 50 ni lita 3.0-6.8.
5. Ili kuhakikisha uwiano bora wa uongofu wa malisho, inashauriwa kuweka hali ya joto katika 17-22° C katika kipindi hiki. Joto linalofaa zaidi kwa nguruwe jike ni 18°C.
6. Chakula kihifadhiwe mahali pa kavu, baridi na safi.

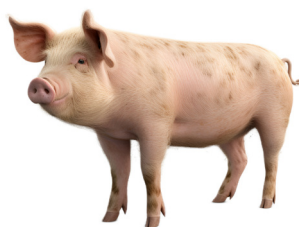
Umri	Uzito / Nguruwe	Ulaji wa Chakula / Siku	Jumla ya Ulaji wa Chakula*
wiki 12	kilo 40	kilo 1.75	kilo 77
wiki 14	kilo 52	kilo 2.03	kilo 107.5
wiki 16	kilo 64	kilo 2.33	kilo 140.1
wiki 18	kilo 76	kilo 2.60	kilo 176.5

* Jumla ya kiasi cha chakula kilichochukuliwa na nguruwe mmoja hadi hatua hii.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Kalsiamu (≥)	Jumla ya Fosforasi (≥)	Kloridi ya Sodiamu	Lisini	Unyevu (≤)
15.0	5.5	3.6	0.69	0.62	0.42	1.0	12.5

553 Pig Fattening



SUITABLE FOR PIGS AGED 75-130 DAYS OR
WEIGHED 25-75 KG

The use of this product can make pigs grow faster, reduce feed-to-meat ratio, increase carcass lean percentage, and improve pigs' body shape. This product focuses on the relationship between immunity and nutrition. It includes sufficient vitamins and other nutrients to improve the immune level and the disease resistance of pigs.



Breeding Recommendations

1. This feed can be used directly.
2. It is recommended to feed pigs in small amounts and multiple times. Do not feed too much at one time. Increase the amount of feed at a proper pace according to the growth rate of the piglets to avoid excessive feeding.
3. Keep the drinking water and the breeding environment clean.
4. The daily water intake of grower fattening pigs weighed 100 kg is 6-12 liters.
5. To ensure the best feed conversion ratio, it is recommended to keep the temperature at 15-20°C at this stage. The most suitable temperature for sows is 18°C.
6. The feed should be stored in a dry, cool and clean place.

Age	Weight / Pig	Daily Feed Intake / Pig	Total Feed Intake / Pig*
20 weeks	88 kg	2.85 kg	216.4 kg
22 weeks	100 kg	3.0 kg	258.4 kg

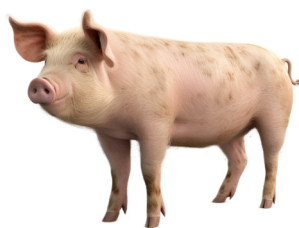
* The total amount of feed taken by one pig up until this point.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Calcium (≥)	Total Phosphorus (≥)	Sodium Chloride	Lysine	Moisture (≤)
13.5	5.5	4.0	0.68	0.71	0.40	0.93	12.5

553

Chakula cha Kunenepesha cha Nguruwe



NI MAALUMU KWA NGURUWE WENYE UMRI WA SIKU 75-130 AU UZITO WA KILO 25-75

Matumizi ya bidhaa hii yanaweza kufanya nguruwe kukua haraka, kupunguza uwiano wa chakula kwa nyama, kuongeza asilimia ya nyama ya mafuta kidogo kwenye mzoga, na kuboresha umbo la mwili wa nguruwe. Bidhaa hii inazingatia uhusiano kati ya kinga na lishe. Inajumuisha vitamini vya kutosha na virutubishi vingine kuboresha kiwango cha kinga na uwezo wa nguruwe kupinga magonjwa.



Mapendekezo ya Ufugaji

1. Chakula kinaweza kulishwa moja kwa moja.
2. Inashauriwa kulisha nguruwe kwa kiasi kidogo na mara nyingi. Usile sana kwa wakati mmoja. Ongeza kiasi cha chakula kwa kasi inayofaa kulingana na kasi ya ukuaji wa nguruwe ili kuepuka kulisha kupita kiasi.
3. Weka maji ya kunywa na mazingira ya uzazi katika hali ya usafi.
4. Ulaji wa maji wa kila siku wa nguruwe walioachishwa wenye uzito wa kilo 100 ni lita 6-12.
5. Ili kuhakikisha uwiano bora wa uongofu wa malisho, inashauriwa kuweka hali ya joto katika 15-20° C katika kipindi hiki. Joto linalofaa zaidi kwa nguruwe jike ni 18°C.
6. Chakula kihifadhiwe mahali pa kavu, baridi na safi.

Umri	Uzito / Nguruwe	Ulaji wa Chakula / Siku	Jumla ya Ulaji wa Chakula*
wiki 20	kilo 88	kilo 2.85	kilo 216.4
wiki 22	kilo 100	kilo 3.0	kilo 258.4

* Jumla ya kiasi cha chakula kilichochukuliwa na nguruwe mmoja hadi hatua hii.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Kalsiamu (≥)	Jumla ya Fosforasi (≥)	Kloridi ya Sodiamu	Lisini	Unyevu (≤)
13.5	5.5	4.0	0.68	0.71	0.40	0.93	12.5

740 Tilapia Starter

SUITABLE FOR TILAPIA FRY WEIGHED 0.01-5G



This high-protein feed is carefully developed and crafted from selected raw materials and optimized processes, specially tailored for your tilapia. The product is rich in amino acids, fatty acids, and other essential growth factors. It maximizes the growth potential of juvenile fish while also providing excellent growth performance, laying a solid foundation for the growth phase of tilapia fry.



Breeding Recommendations

1. This product can be used directly. It is recommended to feed 4-6 meals daily at regular times and locations, with a daily feeding rate of 6-10%.
2. It is recommended to follow the “slow-fast-slow” principle for feeding rhythm, with each meal lasting 30-40 minutes until fully consumed. Generally, feed until the fish are 70-80% full.
3. The suitable temperature range for tilapia growth is 23-28°C. On sunny days with high dissolved oxygen, more feed can be given; when the water temperature is too high or too low, during rainy weather, or when dissolved oxygen is low, reduce or stop feeding.
4. This product should be stored in a ventilated, cool, and dry place. After opening, the packaging bag should be tightly sealed to avoid moisture, exposure, and other contamination.
5. Changes in the sensory properties (color, etc.) of the product do not affect the quality, so the feed can be used with confidence.
6. If the feed shows signs of mold or other quality changes, stop using the feed immediately.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Crude Fat (≤)	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
40	16	3	5	0.6-2.0	0.2-2.0	2.5	12

740

Chakula cha Kuanzia Cha Sato

NI MAALUMU KWA VIFARANGA VYA SATO
WENYE UZITO WA GRAMU 0.01-5



Matumizi ya bidhaa hii yanaweza kufanya nguruwe kukua haraka, kupunguza uwiano wa chakula kwa nyama, kuongeza asilimia ya nyama ya mafuta kidogo kwenye mzoga, na kuboresha umbo la mwili wa nguruwe. Bidhaa hii inazingatia uhusiano kati ya kinga na lishe. Inajumuisha vitamini vya kutosha na virutubishi vingine kuboresha kiwango cha kinga na uwezo wa nguruwe kupinga magonjwa.



Mapendekezo ya Ufugaji

1. Bidhaa hii inaweza kutumika moja kwa moja. Inapendekezwa kulisha chakula mara 4-6 kwa siku kwa wakati na mahali maalum, na kiwango cha kulisha cha kila siku cha 6-10%.

2. Inapendekezwa kufuata kanuni ya "polepole-haraka-polepole" kwa kasi ya kulisha, kila mlo kudumu dakika 30-40 hadi kuliwa kabisa. Kwa ujumla, kulisha hadi samaki wawe 70-80% wakishiba.

3. Kiwango bora cha joto la maji kwa ukuaji wa sato ni nyuzi 23-28°C. Katika siku za jua na oksijeni iliyoyeyuka ikiwa juu, chakula zaidi kinaweza kutolewa; wakati joto la maji ni juu sana au chini sana, wakati wa hali ya hewa ya mvua, au oksijeni iliyoyeyuka ikiwa chini, punguza au usiliishe chakula.

4. Bidhaa hii inapaswa kuhifadhiwa mahali penye hewa, baridi, na kavu. Baada ya kufunguliwa, mfuko wa ufugaji unapaswa kufungwa vizuri ili kuepuka unyevu, mionzi ya jua, na uchafuzi mwingine.

5. Mabadiliko katika sifa za kionjo (rangi, nk) za bidhaa hayathiri ubora, hivyo chakula kinaweza kutumika kwa uhakika.

6. Ikiwa chakula kinaonyesha dalili za ukungu au mabadiliko mengine ya ubora, acha kutumia chakula mara moja.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Mchafu Mafuta (≤)	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
40	16	3	5	0.6-2.0	0.2-2.0	2.5	12

738 Tilapia Starter

SUITABLE FOR TILAPIA WEIGHED 5-50G



This 1mm floating feed starts the growth journey of your tilapia fry. The product is carefully developed using high-quality raw materials and features high protein content, rich in amino acids, fatty acids, and other essential growth factors, providing critical nutrition for the early development of fry. The product has high palatability and strong attractant properties, ensuring your fish achieve excellent growth performance, enhanced immunity, and survival rates during early growth stages. It is a reliable choice for your initial breeding phase.



Breeding Recommendations

1. This product can be used directly. It is recommended to feed 3-4 meals daily at regular times and locations, with a daily feeding rate of 4-8%.
2. It is recommended to follow the “slow-fast-slow” principle for feeding rhythm, with each meal lasting 30-40 minutes until fully consumed. Generally, feed until the fish are 70-80% full.
3. The suitable temperature range for tilapia growth is 23-28°C. On sunny days with high dissolved oxygen, more feed can be given; when the water temperature is too high or too low, during rainy weather, or when dissolved oxygen is low, reduce or stop feeding.
4. During the transitional growth stages of the fish, while ensuring normal feeding, appropriately mix other sizes of feed in certain proportions and feed flexibly.
5. This product should be stored in a ventilated, cool, and dry place. After opening, the packaging bag should be tightly sealed to avoid moisture, exposure, and other contamination.
6. Changes in the sensory properties (color, etc.) of the product do not affect the quality, so the feed can be used with confidence.
7. If the feed shows signs of mold or other quality changes, stop using the feed immediately.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Crude Fat (≤)	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
38	16	6	5	0.6-2.0	0.2-2.0	2.5	12

738

Chakula cha Kuanzia Cha Sato

NI MAALUMU KWA SATO WENYE UZITO WA GRAMU 5-50



Chakula hiki cha kunata chenye kipenyo cha 1mm kinaanzisha safari ya ukuaji wa vifaranga vya sato wako. Bidhaa hii imetengenezwa kwa umakini kwa kutumia malighafi bora na ina sifa ya kuwa na protini nyingi, yenye utajiri wa asidi amino, asidi ya mafuta, na vichocheo vingine muhimu vya ukuaji, ikiitoa lishe muhimu kwa maendeleo ya awali ya vifaranga. Bidhaa hii ina ladha ya juu na uwezo mkubwa wa kuvutia kula, kuhakikisha samaki wako wanapata utendaji bora wa ukuaji, kinga iliyoboreshwa, na viwango vya juu vya kuishi katika hatua za awali za ukuaji. Ni chaguo la kuaminika kwa awamu yako ya awali ya ufugaji.



Mapendekezo ya Ufugaji

1. Bidhaa hii inaweza kutumika moja kwa moja. Inapendekezwa kulisha chakula mara 3-4 kwa siku kwa wakati na mahali maalum, na kiwango cha kulisha cha kila siku cha 4-8%.

2. Inapendekezwa kufuata kanuni ya "polepole-haraka-polepole" kwa kasi ya kulisha, kila mlo kudumu dakika 30-40 hadi kuliwa kabisa. Kwa ujumla, kulisha hadi samaki wawe 70-80% wakishiba.

3. Kiwango bora cha joto la maji kwa ukuaji wa sato ni nyuzi 23-28°C. Katika siku za jua na oksijeni iliyoyeyuka ikiwa juu, chakula zaidi kinaweza kutolewa; wakati joto la maji ni juu sana au chini sana, wakati wa hali ya hewa ya mvua, au oksijeni iliyoyeyuka ikiwa chini, punguza au usiliishe chakula.

4. Wakati wa hatua za mpito za ukuaji wa samaki, huku ukihakikisha ulaji wa kawaida wa chakula, changanya saizi nyingine za chakula kwa uwiano fulani na ulishe kwa kubadilika.

5. Bidhaa hii inapaswa kuhifadhiwa mahali penye hewa, baridi, na kavu. Baada ya kufunguliwa, mfuko wa ufugaji unapaswa kufungwa vizuri ili kuepuka unyevu, mionzi ya jua, na uchafuzi mwingine.

6. Mabadiliko katika sifa za kionjo (rangi, nk) za bidhaa hayathiri ubora, hivyo chakula kinaweza kutumika kwa uhakika.

7. Ikiwa chakula kinaonyesha dalili za ukungu au mabadiliko mengine ya ubora, acha kutumia chakula mara moja.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Mchafu Mafuta (≤)	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
38	16	6	5	0.6-2.0	0.2-2.0	2.5	12

735 Tilapia Grower

SUITABLE FOR TILAPIA WEIGHED 50-150G



This 2mm floating feed is made from selected raw materials, providing precise and comprehensive nutrition with high palatability and attractant properties. While meeting all the nutritional needs of the fish, this product ensures stable and rapid growth, laying a solid foundation for the edible protein part of the tilapia. It is highly effective in promoting muscle development, enhancing the vitality and immunity of the tilapia.



Breeding Recommendations

1. This product can be used directly. It is recommended to feed 3-4 meals daily at regular times and locations, with a daily feeding rate of 4-6%.
2. It is recommended to follow the “slow-fast-slow” principle for feeding rhythm, with each meal lasting 30-40 minutes until fully consumed. Generally, feed until the fish are 70-80% full.
3. The suitable temperature range for tilapia growth is 23-28°C. On sunny days with high dissolved oxygen, more feed can be given; when the water temperature is too high or too low, during rainy weather, or when dissolved oxygen is low, reduce or stop feeding.
4. During the transitional growth stages of the fish, while ensuring normal feeding, appropriately mix other sizes of feed in certain proportions and feed flexibly.
5. This product should be stored in a ventilated, cool, and dry place. After opening, the packaging bag should be tightly sealed to avoid moisture, exposure, and other contamination.
6. Changes in the sensory properties (color, etc.) of the product do not affect the quality, so the feed can be used with confidence.
7. If the feed shows signs of mold or other quality changes, stop using the feed immediately.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Crude Fat (≤)	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
35	14	8	5	0.6-2.0	0.2-2.0	2	12

735

Chakula cha Kukuzia Cha Sato

NI MAALUMU KWA SATO WENYE UZITO WA GRAMU 50-150



Chakula hiki cha kunata chenye kipenyo cha 2mm kimeundwa kwa kutumia malighafi iliyochaguliwa, kikiwa na lishe kamili na sahihi, na ladha ya juu na uwezo mkubwa wa kuvutia kula. Bidhaa hii inakidhi mahitaji yote ya lishe ya samaki, kuhakikisha ukuaji thabiti na wa haraka, kuweka msingi mzuri kwa sehemu ya protini inayoliwa ya sato. Ina ufanisi mkubwa katika kukuza maendeleo ya misuli ya samaki, kuongeza nguvu na kinga ya sato.



Mapendekezo ya Ufugaji

1. Bidhaa hii inaweza kutumika moja kwa moja. Inapendekezwa kulisha chakula mara 3-4 kwa siku kwa wakati na mahali maalum, na kiwango cha kulisha cha kila siku cha 4-6%.

2. Inapendekezwa kufuata kanuni ya "polepole-haraka-polepole" kwa kasi ya kulisha, kila mlo kudumu dakika 30-40 hadi kuliwa kabisa. Kwa ujumla, kulisha hadi samaki wawe 70-80% wakishiba.

3. Kiwango bora cha joto la maji kwa ukuaji wa sato ni nyuzi 23-28°C. Katika siku za jua na oksijeni iliyoyeyuka ikiwa juu, chakula zaidi kinaweza kutolewa; wakati joto la maji ni juu sana au chini sana, wakati wa hali ya hewa ya mvua, au oksijeni iliyoyeyuka ikiwa chini, punguza au usiliishe chakula.

4. Wakati wa hatua za mpito za ukuaji wa samaki, huku ukihakikisha ulaji wa kawaida wa chakula, changanya saizi nyingine za chakula kwa uwiano fulani na ulishe kwa kubadilika.

5. Bidhaa hii inapaswa kuhifadhiwa mahali penye hewa, baridi, na kavu. Baada ya kufunguliwa, mfuko wa ufugaji unapaswa kufungwa vizuri ili kuepuka unyevu, mionzi ya jua, na uchafuzi mwingine.

6. Mabadiliko katika sifa za kionjo (rangi, nk) za bidhaa hayathiri ubora, hivyo chakula kinaweza kutumika kwa uhakika.

7. Ikiwa chakula kinaonyesha dalili za ukungu au mabadiliko mengine ya ubora, acha kutumia chakula mara moja.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Mchafu Mafuta (≤)	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
35	14	8	5	0.6-2.0	0.2-2.0	2	12

730 Tilapia Grower

SUITABLE FOR TILAPIA WEIGHED 150-300G



This 3mm floating feed is specially designed for the highest growth rate stage of tilapia. The product uses selected raw materials and precise formulations to provide balanced and rich nutrition for your tilapia. The high conversion rate of the nutrients ensures maximum muscle development and accumulation, laying a solid foundation for high-quality tilapia meat. Additionally, the high uniformity of the feed ensures stable nutrient intake for the tilapia, guaranteeing rapid growth during this stage.



Breeding Recommendations

1. This product can be used directly. It is recommended to feed 3 meals daily at regular times and locations, with a daily feeding rate of 2.5-4.0%.
2. It is recommended to follow the "slow-fast-slow" principle for feeding rhythm, with each meal lasting 30-40 minutes until fully consumed. Generally, feed until the fish are 70-80% full.
3. The suitable temperature range for tilapia growth is 23-28°C. On sunny days with high dissolved oxygen, more feed can be given; when the water temperature is too high or too low, during rainy weather, or when dissolved oxygen is low, reduce or stop feeding.
4. During the transitional growth stages of the fish, while ensuring normal feeding, appropriately mix other sizes of feed in certain proportions and feed flexibly.
5. This product should be stored in a ventilated, cool, and dry place. After opening, the packaging bag should be tightly sealed to avoid moisture, exposure, and other contamination.
6. Changes in the sensory properties (color, etc.) of the product do not affect the quality, so the feed can be used with confidence.
7. If the feed shows signs of mold or other quality changes, stop using the feed immediately.

NUTRIENT VALUE COMPOSITION (%)

Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Crude Fat (≤)	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
30	12	8	5	0.6-2.0	0.2-2.0	1.8	12

730

Chakula cha Kukuzia Cha Sato

NI MAALUMU KWA SATO WENYE UZITO WA GRAMU 150-300



Chakula hiki cha kunata chenye kipenyo cha 3mm kimeundwa mahsusi kwa ajili ya hatua ya ukuaji wa kasi ya juu zaidi kwa sato. Bidhaa hii inatumia malighafi iliyochaguliwa na fomula sahihi ili kutoa lishe yenye uwiano na utajiri kwa sato wako. Kiwango cha juu cha ubadilishaji wa virutubisho kinahakikisha ukuaji wa juu na mkusanyiko wa misuli, kuweka msingi thabiti kwa ubora wa juu wa nyama ya sato. Zaidi ya hayo, usawa wa juu wa chakula hiki unaweza kuhakikisha ulaji thabiti wa virutubisho kwa sato, kuhakikisha ukuaji wa kasi katika hatua hii.



Mapendekezo ya Ufugaji

1. Bidhaa hii inaweza kutumika moja kwa moja. Inapendekezwa kulisha chakula mara 3 kwa siku kwa wakati na mahali maalum, na kiwango cha kulisha cha kila siku cha 2.5-4.0%.

2. Inapendekezwa kufuata kanuni ya "polepole-haraka-polepole" kwa kasi ya kulisha, kila mlo kudumu dakika 30-40 hadi kuliwa kabisa. Kwa ujumla, kulisha hadi samaki wawe 70-80% wakishiba.

3. Kiwango bora cha joto la maji kwa ukuaji wa sato ni nyuzi 23-28°C. Katika siku za jua na oksijeni iliyoyeyuka ikiwa juu, chakula zaidi kinaweza kutolewa; wakati joto la maji ni juu sana au chini sana, wakati wa hali ya hewa ya mvua, au oksijeni iliyoyeyuka ikiwa chini, punguza au usiliishe chakula.

4. Wakati wa hatua za mpito za ukuaji wa samaki, huku ukihakikisha ulaji wa kawaida wa chakula, changanya saizi nyingine za chakula kwa uwiano fulani na ulishe kwa kubadilika.

5. Bidhaa hii inapaswa kuhifadhiwa mahali penye hewa, baridi, na kavu. Baada ya kufunguliwa, mfuko wa ufugaji unapaswa kufungwa vizuri ili kuepuka unyevu, mionzi ya jua, na uchafuzi mwingine.

6. Mabadiliko katika sifa za kionjo (rangi, nk) za bidhaa hayathiri ubora, hivyo chakula kinaweza kutumika kwa uhakika.

7. Ikiwa chakula kinaonyesha dalili za ukungu au mabadiliko mengine ya ubora, acha kutumia chakula mara moja.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

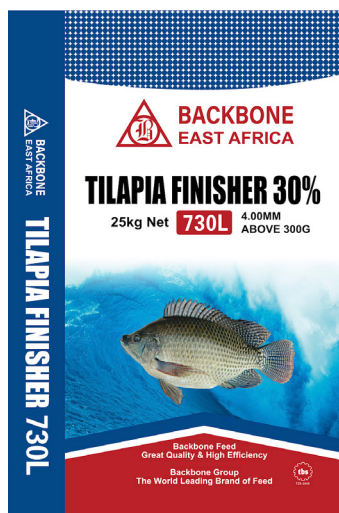
Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Mchafu Mafuta (≤)	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
30	12	8	5	0.6-2.0	0.2-2.0	1.8	12

730L Tilapia Finisher

SUITABLE FOR TILAPIA WEIGHED ABOVE 300G



This 4mm floating feed is specially designed for the highest growth rate stage of tilapia and for the tilapia harvest. The product uses selected raw materials and precise formulations, supporting your tilapia to achieve optimal muscle development while obtaining the final harvest with a feed conversion ratio below the market average. This product not only helps your tilapia increase growth rates, optimize appearance and meat quality, but also enables your tilapia to reach the market earlier, maximizing your breeding profits.



Breeding Recommendations

1. This product can be used directly. It is recommended to feed 2-3 meals daily at regular times and locations, with a daily feeding rate of 1.5-3.0%.
2. It is recommended to follow the “slow-fast-slow” principle for feeding rhythm, with each meal lasting 30-40 minutes until fully consumed. Generally, feed until the fish are 70-80% full.
3. The suitable temperature range for tilapia growth is 23-28°C. On sunny days with high dissolved oxygen, more feed can be given; when the water temperature is too high or too low, during rainy weather, or when dissolved oxygen is low, reduce or stop feeding.
4. During the transitional growth stages of the fish, while ensuring normal feeding, appropriately mix other sizes of feed in certain proportions and feed flexibly.
5. This product should be stored in a ventilated, cool, and dry place. After opening, the packaging bag should be tightly sealed to avoid moisture, exposure, and other contamination.
6. Changes in the sensory properties (color, etc.) of the product do not affect the quality, so the feed can be used with confidence.
7. If the feed shows signs of mold or other quality changes, stop using the feed immediately.

NUTRIENT VALUE COMPOSITION (%)

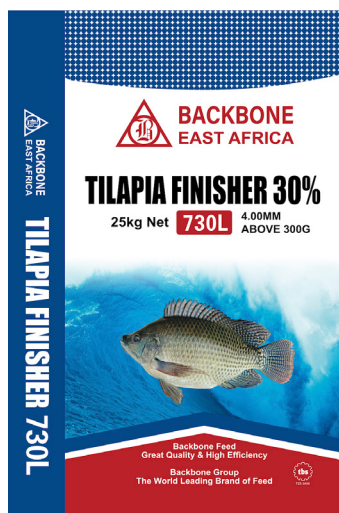
Crude Protein (≥)	Crude Ash (≤)	Crude Fiber (≤)	Crude Fat (≤)	Total Phosphorus	Sodium Chloride	Lysine (≥)	Moisture (≤)
30	12	8	5	0.6-2.0	0.2-2.0	1.8	12

730L Chakula cha Kumalizia Cha Sato

NI MAALUMU KWA SATO WENYE UZITO WA ZAIIDI GRAMU 300



Chakula hiki cha kunata chenye kipenyo cha 4mm kimeundwa mahsusi kwa ajili ya hatua ya ukuaji wa kasi ya juu zaidi ya sato na kwa mavuno ya samaki. Bidhaa hii inatumia malighafi iliyochaguliwa na fomula sahihi, ikisaidia sato wako kufikia ukuaji bora wa misuli huku ikipata mavuno ya mwisho kwa kiwango cha chini cha ubadilishaji wa chakula ikilinganishwa na wastani wa soko. Bidhaa hii sio tu inasaidia sato wako kuongeza kasi ya ukuaji, kuboresha sura na ubora wa nyama, bali pia inawawezesha sato wako kufika sokoni mapema, na hivyo kuongeza faida zako za ufugaji kwa kiwango cha juu.



Mapendekezo ya Ufugaji

1. Bidhaa hii inaweza kutumika moja kwa moja. Inapendekezwa kulisha chakula mara 2-3 kwa siku kwa wakati na mahali maalum, na kiwango cha kulisha cha kila siku cha 1.5-3.0%.

2. Inapendekezwa kufuata kanuni ya "polepole-haraka-polepole" kwa kasi ya kulisha, kila mlo kudumu dakika 30-40 hadi kuliwa kabisa. Kwa ujumla, kulisha hadi samaki wawe 70-80% wakishiba.

3. Kiwango bora cha joto la maji kwa ukuaji wa sato ni nyuzi 23-28°C. Katika siku za jua na oksijeni iliyoyeyuka ikiwa juu, chakula zaidi kinaweza kutolewa; wakati joto la maji ni juu sana au chini sana, wakati wa hali ya hewa ya mvua, au oksijeni iliyoyeyuka ikiwa chini, punguza au usiliishe chakula.

4. Wakati wa hatua za mpito za ukuaji wa samaki, huku ukihakikisha ulaji wa kawaida wa chakula, changanya saizi nyingine za chakula kwa uwiano fulani na ulishe kwa kubadilika.

5. Bidhaa hii inapaswa kuhifadhiwa mahali penye hewa, baridi, na kavu. Baada ya kufunguliwa, mfuko wa ufugaji unapaswa kufungwa vizuri ili kuepuka unyevu, mionzi ya jua, na uchafuzi mwingine.

6. Mabadiliko katika sifa za kionjo (rangi, nk) za bidhaa hayathiri ubora, hivyo chakula kinaweza kutumika kwa uhakika.

7. Ikiwa chakula kinaonyesha dalili za ukungu au mabadiliko mengine ya ubora, acha kutumia chakula mara moja.

MUUNDO WA THAMANI YA VIRUTUBISHI (%)

Protini Ghafi (≥)	Majivu Machafu (≤)	Nyuzinyuzi Ghafi (≤)	Mchafu Mafuta (≤)	Jumla ya Fosforasi	Kloridi ya Sodiamu	Lisini (≥)	Unyevu (≤)
30	12	8	5	0.6-2.0	0.2-2.0	1.8	12

Breeding Guidance: How to Raise Broilers Effectively?

The efficiency of broiler farming is determined by every detail in breeding management. There are four indispensable conditions to raising broilers efficiently: healthy chicks, high-quality feed, a suitable environment, and healthy bodies of chickens.

1. The healthiness of chicks is the most important, as it is something that cannot be repaired or compensated for later. Therefore, be careful in choosing chicks.
2. High-quality feed is also a very significant factor in determining the efficiency of broiler farming. Adding functional feed additives into broiler feed can efficiently solve the problems that may arise in the process of broiler farming.
3. Providing a comfortable environment by applying standardized farming and adjusting the environmental conditions timely is another necessary requirement for the rapid growth of broilers.
4. Only when the above three conditions are appropriately fulfilled, the broilers can have healthy bodies (take disease prevention and control seriously).

At the pre-placement stage

The points of concern before placing chicks into the brooding area are (1) setting up the cleaning and disinfection procedure, (2) monitoring each step of your work, (3) monitoring the effectiveness of disinfection, and (4) other preparatory work.

At 1-7 days of age

To achieve an ideal weight at the end of the first week for your chickens, it is necessary to properly control these five farming elements: temperature, ventilation, density, light, and humidity. However, there is no fixed standard for these elements. They must be adjusted accordingly with your equipment, climate, chickens' weight and other factors. In short, the principle is to make your broilers comfortable.

Medication:

The first principle of using medication is safety. In choosing your starter medication, we recommend you choose drugs according to the physical quality of the chicks. Additional principles are to ensure that the drug will not affect chickens' weight at the end of first week or the development and growth of their organs and to ensure that the drug reduces various stresses.

Immunization:

First of all, the vaccine strains are very important. Second, in the immunization process, you should adopt the correct immunization pathways. Vaccines intended for injections should be injected, vaccines intended for oral use should be given orally, and vaccines intended for nasal drops should be used as prescribed. Third, do not miss any vaccines, including the vaccine for a comprehensive antibody, the vaccine for intestinal mucosa, and the vaccine for respiratory mucosa. Fourth, pay attention to the immune response and the immune index. It is recommended that farms with over 50,000 broilers use an antibody testing equipment. And finally, pay attention to chickens' reactions following the vaccination.

At 8-14 days of age

This week's concerns are to gradually increase the amount of air exchange, pay attention to the balance between ventilation and temperature, and pay attention to the control of immune stress after the immunization of Newcastle disease. In terms of environmental conditions, there are five things to do:

1. Decide whether to change the temperature according to the body condition of the chickens and the season.
2. Try to reach the standard humidity.
3. Increase ventilation according to the weather and season and pay attention to the location of ventilation.
4. Adjust the time and intensity of light to reduce Sudden Death Syndrome.
5. Adjust the density according to the season.

In doing the five things mentioned above, one should center around one major principle: keep the internal environment of the chickens' bodies stable.

CHICKEN FARM



At this stage, also pay attention to:

- the mycoplasma disease and excessive immune stress control;
- the immune stress 24 hours after the immunization of Newcastle disease;
- the intestinal reaction: indigestion (overfeeding) or diarrhea and other symptoms;
- the mold, and gastric symptoms (glandular gastritis) caused by immunosuppressive disease;
- the intestinal tract (as the intestinal tract is the largest immune organ of the body and the intestinal mucosa determines the conversion and absorption of feed).

Immunization:

At this stage, focus on the immunization of infectious bursal disease (IBD), including the choice of vaccines and immunization pathways, immunization effects, immunization precautions, and other work priorities in the management of immunization. The immune response to IBD should disappear in 72 hours. Otherwise, it means the bodily resistance of the chickens is too weak or the virulence of the vaccine strain is too strong.

At 15-21 days of age

At this stage, pay attention to the problem of ventilation (e.g. how to change the ventilation method). Pay close attention to chickens' body temperature, the temperature of the front, middle, and back of the chicken house, the speed and direction of the wind on chickens' back, and the humidity of the chicken house. If ventilation is not done appropriately, the day of ventilation will be the onset of the disease. From then on, respiratory symptoms will appear within 3 days, cloudy air sacs will appear within 5 days, and the disease will break out within 10 days. The immunological window period of Newcastle disease is at the age of 10 to 15 days and of avian influenza is at the age of 21 to 28 days. It is important to focus on protecting the chickens during the window period, which determines whether the body will be healthy in the fourth week. Also, focus on the IBD immune response during this time to minimize immune stress.

At 22-28 days of age

The primary work of the fourth week is to master the balance between ventilation and temperature (it is recommended to install a vacuum gauge, so that the negative pressure in the house can be visualized). Meanwhile, this week is also the immunological window period of avian influenza, so it is necessary to balance between ventilation and temperature, achieving a smooth transition, as even a temperature difference of 5°C can trigger an outbreak of the disease, so as to ensure chickens' sustained intake of food.

At 29-35 days of age

This week is the red warning stage. If there are any problems with early management, they will break out during this period. In fact, diseases oftentimes occur because we created opportunities for the pathogen. Insufficient farming management in any aspect can lead to the occurrence of diseases related to that particular aspect. This week's main concerns are avian influenza, Newcastle disease, chickens' body temperature, and the prevention of overfeeding and diarrhea. In general, before chickens turn to 35 days old, the most important thing is ventilation, and the focus should be on controlling chickens' body temperature by adjusting the temperature, humidity and the speed of the wind on chickens' back.

At 35 days – market age

From 35 days old to market age, we should pay attention to the prevention and control of intestinal diseases, such as to prevent the danger of mycotoxins, *Clostridium difficile* and so on. Meanwhile, we should pay attention to the growth efficiency and the prevention of emergencies. Standardized farms are especially vulnerable to power outages, as blackouts for half an hour may lead to the death of four to five thousand chickens.

To summarize, in broiler farming, healthy chicks, feed with full nutrition, a suitable environment, and healthy bodies are the four indispensable conditions to raise broilers successfully. If the chickens are well managed, there will be less diseases and higher profits. Therefore, it is recommended to pay attention to every detail in your breeding management, learn and summarize from your previous experiences until you find a breeding model that suits your farm the best.

Mwongozo wa Ufugaji: Jinsi ya kufuga kuku wa nyama kwa ufanisi?

Ufanisi wa ufugaji wa kuku huamuliwa na kila undani katika usimamizi wa ulishaji. Kuna masharti manne ya lazima kwaajili ya kukuza kuku kwa ufanisi : vifaranga wenye afya bora, chakula chenye ubora wa juu, mazingira yanayofaa na miili ya kuku yenye afya.

1. Afya ya kifaranga ndio muhimu zaidi, kwani ni kitu ambacho hakiwezi kurekebishwa au kulipwa baadaye. Kwahiyu, kuwa makini katika kuchagua vifaranga.
2. Chakula cha ubora wa juu pia ni kipengele muhimu sana katika kuamua ufanisi wa ufugaji wa kuku. Kuongeza viongeza vya malisho vinavyofanya kazi kwenye chakula cha kuku kunaweza kutatua kwa ufanisi matatizo yanayoweza kutokea katika mchakato wa ufugaji wa kuku.
3. Kuweka mazingira mazuri kwa kutumia ufugaji sanifu na kurekebisha hali ya mazingira kwa wakati ni hitaji lingine la lazima kwa ukuaji wa haraka wa kuku.
4. Ni pale tu masharti matatu yaliyo hapo juu yatakapotimizwa ipasavyo, kuku wa nyama wanaweza kuwa na miili yenye afya Bora (zuia na dhibiti magonjwa kwa uzito).

Katika hatua za mwanzo kabla ya kuwaweka vifaranga

Mambo ya kuzingatia kabla ya kuweka vifaranga kwenye eneo la kutagia ni (1) kuweka utaratibu wa kusafisha na kuua vijidudu , (2) ufuatiliaji kila hatua ya kazi yako, (3) ufuatiliaji ufanisi wa kuua viini, na (4) kazi nyingine ya maandalizi.

Katika umri wa siku 1-7

Ili kupata uzito bora mwishoni mwa wiki ya kwanza kwa kuku ni lazima kudhibiti ipasavyo hivi vipengele vitano katika ufugaji: joto, uingizaji hewa, msongamano, mwanga , na unyevu. Hata hivyo, hakuna kiwango maalum cha vipengele hivi. ni lazima kurekebishwa kulingana na vifaa vyako, hali ya hewa, uzito wa kifaranga na vipengele vingine. kwa kifupi, kanuni ni kuwafanya kuku wako wa nyama wawe vizuri.

Dawa:

Kanuni ya kwanza ya kutumia dawa ni usalama. Katika kuchagua dawa yako ya kuanzia, tunapendekeza kuchagua dawa kulingana na ubora wa kimwili wa vifaranga. Kanuni za ziada ni kuhakikisha kwamba madawa hayataathiri uzito wa kuku mwishoni mwa wiki ya kwanza au maendeleo na ukuaji wa viungo vyao na kuhakikisha kuwa madawa yanapunguza matatizo mbalimbali.

Kinga:

Kuhusu chanjo, aina za chanjo ni muhimu sana. Pili, katika mchakato wa chanjo, unapaswa kupitisha njia sahihi za chanjo. Chanjo zinazokusudiwa kwa sindano zinapaswa kudungwa, chanjo zinazokusudiwa kwa matumizi ya mdomo zinapaswa kutolewa kwa mdomo, na chanjo zinazokusudiwa matone ya pua zitumike kama ilivyoagizwa. Tatu, usikose chanjo yoyote, ikiwa ni pamoja na chanjo ya kingamwili ya kina, chanjo ya matumbo, na chanjo ya mucosa ya kupumua. Nne, kuwa makini na majibu ya kinga na kipimo au kiwango cha kinga. Inapendekezwa kuwa mashamba yenye kuku zaidi ya 50,000 yatumie kifaa cha kupima kingamwili. Na hatimaye, wawe makini na majibu ya kuku baada ya chanjo.

Katika umri wa siku 8-14

Wiki hii mambo yakuzingatia ni kuongeza hatua kwa hatua kiwango cha kubadilishana hewa, kuwa makini katika kuweka usawa kati ya kiwango Cha hewa na joto na kuwa makini na udhibiti wa kinga baada ya chanjo ya ugonjwa wa Newcastle. Kwa upande wa hali ya mazingira, hapa kuna mambo matano ya kufanya :

1. kuamua kubadilisha joto kulingana na hali ya mwili ya kuku na msimu.
2. Jaribu kufikia unyevu wa kawaida.
3. Kuongeza uingizaji hewa kulingana na hali ya hewa na msimu na kuwa makini na eneo la uingizaji hewa.
4. Rekebisha muda na kiwango cha mwanga ili kupunguza Kifo cha Ghafila (sudden Death syndrome).
5. Kurekebisha msongamano kulingana na msimu.

Katika kufanya mambo matano yaliyotajwa hapo juu, mtu anapaswa kuzingatia kanuni moja kuu: kuweka mazingira ya ndani ya miili ya kuku imara.

CHICKEN FARM



Katika hatua hii, kuwa makin na :

- ugonjwa wa mycoplasma na kudhibiti ukubwa wa mkazo wa kinga;
- mkazo wa kinga saa 24 baada ya chanjo ya ugonjwa wa Newcastle;
- mmenyuko wa matumbo - ugonjwa wa kusagwa kwa chakula (kulisha kupita kiasi) au kuhara na dalili nyingine;
- ukungu, na dalili za tumbo (gastritis ya tezi) inayosababishwa na ugonjwa unaodhoofisha kinga;
- njia ya utumbo (kwa sababu njia ya utumbo ni kiungo kikubwa zaidi cha kinga ya mwili na mucosa ya utumbo huamua ubadilishaji na unyonyaji wa chakula).

Kinga:

Katika hatua hii, zingatia chanjo ya ugonjwa wa bursal unaoambukiza (IBD), ikijumuisha uchaguzi wa chanjo na njia za chanjo, athari za chanjo, tahadhari za chanjo, na vipaumbele vingine vya kazi katika usimamizi wa chanjo. Mwitikio wa kinga kwa IBD unapaswa kutoweka katika masaa 72. Vinginevyo, inamaanisha upinzani wa mwili wa kuku ni dhaifu sana au virusi vya aina ya chanjo ni kali sana..

Katika umri wa siku 15-21

Katika hatua hii, kuwa makini na tatizo la uingizaji hewa (kwa mfano jinsi ya kubadilisha njia ya uingizaji hewa). Jihadharini sana na joto la mwili wa kuku, joto la mbele, la kati na la nyuma la banda la kuku, kasi na uelekeo wa upepo kwenye mgongo wa kuku, na unyevu wa banda la kuku. Ikiwa uingizaji hewa haufanyiki ipasavyo, siku ya uingizaji hewa itakuwa mwanzo wa ugonjwa. Kuanzia wakati huo, dalili za kupumua zitaonekana ndani ya siku 3, mifuko yenye mawingu itaonekana ndani ya siku 5, na ugonjwa huo utazuka ndani ya siku 10. Kipindi cha dirisha cha kinga ya ugonjwa wa Newcastle ni katika umri wa siku 10 hadi 15 na mafua ya ndege ni umri wa siku 21 hadi 28. Ni muhimu kuzingatia kulinda kuku wakati wa dirisha, ambayo huamua ikiwa mwili utakuwa na afya katika wiki ya nne. Pia, zingatia majibu ya kinga ya IBD wakati huu ili kupunguza mkazo wa kinga.

Katika umri wa siku 22-28

Kazi ya msingi ya wiki ya nne ni kusimamia usawa kati ya uingizaji hewa na joto (inashauriwa kufunga kipimo Cha shinikizo ili shinikizo hasi ndani ya nyumba liweze kuonekana). Wakati huo huo, wiki hii pia ni kipindi cha dirisha cha kinga ya mafua ya ndege, kwa hiyo ni muhimu kusawazisha kati ya uingizaji hewa na joto, kufikia mabadiliko laini kwani hata tofauti ya joto ya 5°C inaweza kusababisha kuzuka kwa ugonjwa, ili kuhakikisha ulaji endelevu wa kuku wa chakula.

Katika umri wa siku 29-35

Wiki hii ni hatua ya onyo nyekundu . Ikiwa kuna matatizo yoyote ya usimamizi wa mapema, yatazuka katika kipindi hiki. Kwa kweli, ugonjwa mara nyingi hutokea kwa sababu sisi huunda fursa kwa pathojeni. usimamizi usiojitoshesheza katika kipengele chochote kinaweza kusababisha kutokea kwa magonjwa yanayohusiana na kipengele hicho.

Mambo makuu ya kuzingatia wiki hii ni mafua ya ndege, ugonjwa wa Newcastle ,joto la mwili wa kuku na kuzuia kulisha kupita kiasi na kuhara. Kwa ujumla, kabla ya kuku kugeuka umri wa siku 35, jambo muhimu zaidi ni uingizaji hewa, na inapaswa kuzingatia kudhibiti joto la mwili wa kuku kwa kurekebisha joto, unyevunyevu na kasi ya upepo kwenye mgongo wa kuku.

Katika siku 35 – umri wa kuwatoa/solo

Kuanzia umri wa siku 35 hadi umri wa soko, tunapaswa kuzingatia kuzuia na kudhibiti magonjwa ya matumbo, kama vile kuzuia hatari ya mycotoxins, Clostridium difficile na kadhalika. Wakati huo huo, tunapaswa kuzingatia ufanisi wa ukuaji na uzuiaji wa dharura. Mashamba ya kawaida yana hatari ya kukatika kwa umeme, kwani kukatika kwa umeme kwa nusu saa kunaweza kusababisha kifo cha kuku elfu nne hadi tano.

Kwa muhtasari, katika ufugaji wa kuku wa nyama, vifaranga wenye afya bora, lishe yenye lishe kamili, mazingira yanayofaa, na miili yenye afya nzuri ni hali nne muhimu za kulea kuku kwa mafanikio. Ikiwa kuku watasimamiwa vizuri, magonjwa yatapungua na kuleta faida kubwa zaidi. Kwa hivyo, inashauriwa kuzingatia kila undani katika usimamizi wako wa ufugaji, jifunze na muhtasari kutoka kwa uzoefu wako wa awali hadi upate mtindo wa ufugaji unaofaa zaidi katika shamba lako.

Breeding Guidance: How to Raise Laying Hens Effectively?

Stages of the Laying Period

The laying period of egg-laying hens is generally divided into three stages: The first stage is called pre-laying period, which extends from the time hens are moved to the cages until the egg production rate reaches 5%. The second stage is called peak-laying period, which spans from the 5% egg production rate to approximately 50 weeks of age or until after the peak of production when the rate drops to 70%. The third stage starts from the 50th week until the hens are culled.

Feeding Management

During the laying period, hens are usually fed 2 to 3 times a day with ad libitum feeding. From the time they are moved to the cages until the egg production rate reaches 5%, give them layer starter feed. At this point, the flock has not fully started laying, so the protein content in the diet is lower. From the time when the egg production rate reaches 5% until layers are 50 weeks old, give them peak laying feed. At this stage, the flock is in a robust laying period, thus requiring increased protein, energy, and other nutrients. After 50 weeks, give layers post-peak laying feed. At this stage, the hens' nutritional needs are relatively lower, and even with high-protein feed, there will not be significant increase in egg production. Thus, economically speaking, it is better to feed them post-peak laying feed. The feed in the trough should be spread evenly, and the trough should be cleaned regularly, especially in summer. Wet and dirty feed must be cleaned out completely. Do not overfill the feed (the feed should not exceed one-third of the trough), otherwise there will be waste caused by hens scattering the feed. Drinking water must be clean and fresh. Drinkers or water troughs must be cleaned daily. Nipple drinkers should be checked regularly. If troughs were used during the rearing period, it is important to train the hens to use nipple drinkers after they are moved to the cages. Generally, water consumption is about twice the feed intake.

Standardized and Healthy Breeding of Laying Hens

1. Facilities for Laying Hen Farming

Strict adherence to farming standards is required. Hen houses should be built in high, dry areas with convenient traffic and suitable for waste disposal, along with appropriate greening/afforesting measures. Chicks, mature hens, and laying hens should be reared separately to prevent cross-infection. To avoid overcrowding, there should be fewer than 13 hens per square meter. Additionally, to provide a good growth environment for laying hens, the hen house should be equipped with chicken cages, automatic feeding and drinking systems, exhaust fans, and faeces removal systems. It is also important to maintain suitable temperature, humidity, and lighting levels conducive to the growth of laying hens.

2. Disease Prevention for Laying Hens

To prevent disease, start by selecting healthy and high-quality chicks from licensed and regulated farms. Healthy and high-quality chicks should be able to grow into hens that are physically strong, have high egg production rates, and possess strong resistance to disease. Second, conduct disinfection practices, which should include both personnel and hen house disinfection. Establish disinfection pools at hen house entrances where all individuals must wash and disinfect their hands to prevent external contaminants. Disinfectants should be changed regularly, usually 2 to 3 times a week. Meanwhile, regularly disinfect the surrounding environment of the hen house as well as equipment such as egg baskets, drinkers, and feeders. Third, take infectious disease prevention measures. Properly manage the manure in the layer farm to establish a good ecological breeding environment. Also, handle dead laying hens harmlessly, for example, by constructing a carcass disposal pit in the farm, where all dead bodies are disposed of and sealed or by asking the relevant authorities to handle the bodies professionally.

3. Feed and Medication Safety for Laying Hens

Strictly comply with standards for feed and additives and ensure a scientifically balanced diet that meets the nutritional needs of laying hens. The medication dosage, type, and period should adhere to relevant standards, and the use of unqualified drugs on laying hens is prohibited. Every medication use should be recorded accurately.

During the Early Production Period

1. Vaccination: Currently, immunization using the appropriate vaccines has become an important measure to prevent and control infectious diseases in chickens. When the egg production rate reaches 5%, inject the hens with "oil emulsion inactivated vaccines" (immunity lasts for 6 months) through intramuscular injection. This not only achieves the goal of disease prevention within six months but also effectively avoids any negative impact of immunization on the egg production rate of high-yielding hens.



2. **Light Adjustment:** To meet the lighting needs of high-yielding laying hens, it is advisable to adjust the lighting during the early production period. Generally, when the egg production rate reaches 10%, begin increasing the light at a constant speed and use 2 to 3 weeks to increase the lighting to 16 hours with a light intensity of 10 to 15 lux. Increasing the light too soon, too quickly, or too intensely can cause strong stress responses in hens.

3. **Feed Change:** To meet the nutritional needs of high-yielding laying hens, provide feed that meets their physiological needs for them to produce eggs. To avoid or minimize stress caused by feed change, it is recommended to gradually change from little to more, typically over a period of 2 weeks. To reduce the stress response in hens at the start of production, consider adding vitamins A and C to their feed.

4. **Flock Adjustment:** To improve the uniformity and egg production rate during the high-production period, adjust the flock by weight during the early production period. This adjustment should effectively reduce the occurrence of underdeveloped hens failing to access food, thereby promoting the growth and development of weaker members of the flock.

5. **Maintenance:** Damaged equipment not only affects the work efficiency of staff but also damages eggs and can even pose a threat to the life and health of the hens. Therefore, strict maintenance of chicken cages and other equipment is required during the early production period to ensure they are in good shape and functioning well.

6. **Parasite Control:** Both internal and external parasites not only consume nutrients from hens and cause stress in hens, but also provide conditions that facilitate the invasion of pathogens. Therefore, it is necessary to deworm laying hens during the early production period, with common deworming drugs such as ivermectin and levamisole.

During the Peak Production Period

1. **Temperature Control:** To fully exploit the genetic advantages of laying hens in terms of egg production rate, feed-to-egg ratio, and immunity, it is important to properly control the temperature inside the hen house. High temperatures can cause diarrheal diseases, increasing the feed-to-egg ratio and reducing egg quality, while low temperatures can lead to respiratory diseases, reducing both egg production rate and egg quality. Therefore, the environmental temperature inside the henhouse should be controlled between 16°C and 24°C, ideally around 20°C.

2. **Humidity Control:** The optimal humidity inside the hen house is between 55% and 60%. Under these conditions, the hens' immunity, egg production rate, feed-to-egg ratio, and egg quality can reach their highest levels. Thus, it is necessary to ventilate and disinfect with sprays at appropriate times to adjust the humidity.

3. **Scientific Lighting:** Lighting with proper time and intensity control not only maintains a high level of immunity and feed intake in the flock but also effectively enhances the egg production rate and egg quality. Lighting that is too strong or too long can easily induce pecking disorders. Typically, the light intensity inside the henhouse should be controlled at about 15 lux and the lighting time at 16 hours.

4. **Timely Egg Collection:** Normally, the egg-laying time for hens is concentrated between 9 AM and 12 PM, with only 10% to 20% of eggs laid in the afternoon. Therefore, the first egg collection should be conducted after 12 PM, and the second collection after 4 PM. Timely egg collection not only effectively reduces the chances of egg pecking and damage but also facilitates egg formation and laying by stimulating conditioned reflexes in hens.

5. **Feed Nutrition:** Choose high-quality feed that meets the nutritional needs of laying hens during the peak production period.

Other Considerations

1. **Disinfection:** When disinfecting chickens, it is important to correctly select and dilute the disinfectants and strictly adhere to disinfection technical standards to achieve efficient disinfection with minimal stress and side effects.

2. **Hygiene:** It is recommended to clean and disinfect at least twice a week, and promptly carry out harmless disposal of removed feces and waste.

3. **Feed Storage:** Store feed in order in a well-ventilated, dry, clean, and sanitary feed warehouse. The warehouse should allow for air exchange and be moisture-proof and waterproof.

4. **Preventing Birds, Animals, and Rodents:** Take appropriate measures in the hen house and feed storage areas to prevent birds, animals, and rodents from entering.

Mwongozo wa Ufugaji: Jinsi ya Kufuga Kuku wa Mayai na Ufanisi?

Hatua za Kipindi cha Kutaga

Kipindi cha kutaga kwa kuku wa mayai kwa kawaida hugawanywa katika hatua tatu: Hatua ya kwanza inaitwa kipindi cha kabla ya kutaga, ambacho kinajumuisha muda kutoka kuku wanapohamishwa kwenda kwenye mabanda hadi kiwango cha uzalishaji wa mayai kufikia 5%. Hatua ya pili inaitwa kipindi cha kilele cha kutaga, ambacho kinajumuisha muda kutoka kiwango cha uzalishaji wa mayai cha 5% hadi takriban wiki 50 za umri au hadi baada ya kilele cha uzalishaji ambapo kiwango kinashuka hadi 70%. Hatua ya tatu inaanza kutoka wiki ya 50 hadi kuku wanapotolewa.

Usimamizi wa Kulisha

Wakati wa kipindi cha kutaga, kuku hulishwa mara 2 hadi 3 kwa siku kwa kulisha mlo wa kupangilia (ad libitum). Kuanzia wakati wanapohamishwa kwenda kwenye mabanda hadi kiwango cha uzalishaji wa mayai kufikia 5%, wape chakula cha kuanzia. Wakati huu, kundi halijaanza kutaga kikamilifu, hivyo maudhui ya protini kwenye mlo ni ya chini. Kuanzia wakati kiwango cha uzalishaji wa mayai kinapofikia 5% hadi kuku wanapofikia umri wa wiki 50, wape chakula cha kilele cha kutaga. Katika hatua hii, kundi liko katika kipindi cha kutaga kwa nguvu, hivyo linahitaji protini, nishati, na virutubisho vingine vilivyoongezeka. Baada ya wiki 50, wape chakula cha baada ya kilele cha kutaga. Katika hatua hii, mahitaji ya lishe ya kuku ni ya chini, na hata kwa chakula chenye protini nyingi, hakutakuwa na ongezeko kubwa la uzalishaji wa mayai. Kwa hivyo, kiuchumi ni bora kuwalisha chakula cha baada ya kilele cha kutaga. Chakula kwenye mabanda kinapaswa kusambazwa sawasawa, na mabanda yanapaswa kusafishwa mara kwa mara, hasa katika majira ya joto. Chakula kilicho unyevu na kichafu lazima kisafishwe kabisa. Usijaze chakula kupita kiasi (chakula hakipaswi kuzidi theluthi moja ya chombo cha kurishia), vinginevyo kutakuwa na upotevu unaosababishwa na kuku kutawanya chakula. Maji ya kunywa yanapaswa kuwa safi na salama. Vyombo vya kunywea maji au maji yanapaswa kusafishwa kila siku. Vyombo vya kunywa na chuchu vinapaswa kukaguliwa mara kwa mara. Ikiwa kifaa cha kulishia kilitumiwa wakati wa kipindi cha kulea, ni muhimu kufundisha kuku kutumia vyombo vya kunywa vya chuchu baada ya kuhamishwa kwenye vizimba. Kwa kawaida, matumizi ya maji ni karibu mara mbili ya ulaji wa chakula.

Ufugaji wa Kuku wa Mayai kwa Viwango na Afya Bora

1. Vifaa vya Ufugaji wa Kuku wa Mayai

Kuzingatia viwango vya ufugaji ni muhimu. Nyumba za kuku zinapaswa kujengwa katika maeneo ya juu, kavu na yenye urahisi wa usafiri na yanayofaa kwa utupaji wa taka, pamoja na hatua zinazofaa za upandaji miti. Vifaranga, kuku wazima, na kuku wa mayai wanapaswa kufugwa kando ili kuzuia maambukizi ya msalaba. Ili kuepuka msongamano, hakutakiwi kuwa na kuku zaidi ya 13 kwa kila mita za mraba. Aidha, ili kutoa mazingira mazuri ya kukua kwa kuku wa mayai, nyumba za kuku zinapaswa kuwa na mabanda ya kuku, mifumo ya kulisha na kunywesha kiotomatiki, feni za kutoa hewa, na mifumo ya kuondoa kinyesi. Pia ni muhimu kudumisha viwango vya joto, unyevu, na taa vinavyofaa kwa ukuaji wa kuku wa mayai.

2. Kuzuia Magonjwa kwa Kuku wa Mayai

Ili kuzuia magonjwa, anza kwa kuchagua vifaranga wenye afya na bora kutoka kwa mashamba yaliyosajiliwa na yanayosimamiwa. Vifaranga wenye afya na bora wanapaswa kuwa na uwezo wa kukua kuwa kuku wenye nguvu, wenye kiwango kikubwa cha uzalishaji wa mayai, na wenye upinzani mkali dhidi ya magonjwa. Pili, fanya vitendo vya usafi, ambavyo vinapaswa kujumuisha usafi wa wafanyakazi na nyumba za kuku. Weka mabwawa ya kuosha na kutakasa mikono kwenye viingilio vya nyumba za kuku ambapo watu wote wanapaswa kuosha na kutakasa mikono yao ili kuzuia uchafu kutoka nje. Dawa ya kuua vijidudu inapaswa kubadilishwa mara kwa mara, kawaida mara 2 hadi 3 kwa wiki. Wakati huohuo, safisha mara kwa mara mazingira ya nyumba za kuku pamoja na vifaa kama vikapu vya mayai, vyombo vya kunywesha, na vya kulishia. Tatu, chukua hatua za kuzuia magonjwa ya kuambukiza. Simamia kinyesi kwenye shamba la kuku ili kuanzisha mazingira mazuri ya ufugaji. Pia, shughulikia kuku waliokufa kwa njia isiyodhuru, kwa mfano, kwa kujenga shimo la kutupa mizoga kwenye shamba, ambapo mizoga yote inatupwa na kufungwa au kwa kuomba mamlaka husika kushughulikia mizoga kitaalamu.

3. Usalama wa Chakula na Dawa kwa Kuku wa Mayai

Kuzingatia kwa ukali viwango vya chakula na viambatisho na kuhakikisha mlo wa kisayansi ulio na uwiano ambao unakidhi mahitaji ya lishe ya kuku wa mayai. Kiwango cha dawa, aina, na kipindi kinapaswa kuzingatia viwango husika, na matumizi ya dawa zisizo na viwango kwa kuku wa mayai ni marufuku. Kila matumizi ya dawa yanapaswa kurekodiwa kwa usahihi.

Wakati wa Kipindi cha Mapema cha Uzalishaji

1.Chanjo: Kwa sasa, kinga kwa kutumia chanjo zinazofaa imekuwa kipimo muhimu cha kuzuia na kudhibiti magonjwa ya kuambukiza kwa kuku. Wakati kiwango cha uzalishaji wa mayai kinapofikia 5%, wape kuku chanjo ya "chanjo ya mafuta iliyosimamishwa" (kinga hudumu kwa miezi 6) kupitia sindano ya ndani ya misuli. Hii si tu inafikia lengo la kuzuia magonjwa ndani ya miezi sita lakini pia huepuka kwa ufanisi athari mbaya za chanjo kwenye kiwango cha uzalishaji wa mayai kwa kuku wenye uzalishaji wa juu.



2. Marekebisha ya Taa: Ili kukidhi mahitaji ya taa ya kuku wenye uzalishaji wa juu, inashauriwa kurekebisha taa wakati wa kipindi cha mapema cha uzalishaji. Kwa kawaida, wakati kiwango cha uzalishaji wa mayai kinapofikia 10%, anza kuongeza taa kwa kasi ya kudumu na tumia wiki 2 hadi 3 kuongeza muda wa taa hadi masaa 16 kwa kiwango cha mwanga wa nuru 10 hadi 15. Kuongeza taa mapema sana /haraka sana, au kwa kiwango cha juu kunaweza kusababisha msongo mkubwa wa mawazo kwa kuku.

3. Mabadiliko ya Chakula: Ili kukidhi mahitaji ya lishe ya kuku wenye uzalishaji wa juu, wape chakula kinachokidhi mahitaji yao ya kisaikolojia kwa ajili ya uzalishaji wa mayai. Ili kuepuka au kupunguza msongo unaosababishwa na mabadiliko ya chakula, inashauriwa kubadilisha kidogo kidogo, kawaida kwa kipindi cha wiki 2. Ili kupunguza msongo kwa kuku mwanzoni mwa uzalishaji, fikiria kuongeza vitamini A na C kwenye chakula chao.

4. Marekebisha ya Kundi: Ili kuboresha usawa na kiwango cha uzalishaji wa mayai wakati wa kipindi cha uzalishaji wa juu, rekebisha kundi kwa uzito wakati wa kipindi cha mapema cha uzalishaji. Marekebisha haya yanapaswa kupunguza kwa ufanisi kutokea kwa kuku wasioendelezwa kushindwa kupata chakula, hivyo kuendeleza ukuaji na maendeleo ya wanachama dhaifu wa kundi.

5. Matengenezo: Vifaa vilivyoharibika si tu vinaathiri ufanisi wa kazi ya wafanyakazi bali pia vinaweza kuharibu mayai na hata kuhatarisha maisha na afya ya kuku. Kwa hivyo, matengenezo makali ya mabwawa ya kuku na vifaa vingine yanahitajika wakati wa kipindi cha mapema cha uzalishaji ili kuhakikisha viko katika hali nzuri na vinafanya kazi vizuri.

6. Udhhibiti wa Vimelea: Vimelea vya ndani na nje havili tu virutubisho kutoka kwa kuku na kusababisha msongo kwao, bali pia hutoa hali zinazoweza uvamizi wa vimelea vya magonjwa. Kwa hivyo, ni muhimu kuwapa dawa za kuondoa minyoo kuku wanaotaga wakati wa kipindi cha mwanzo wa uzalishaji, kwa kutumia dawa za kawaida za kuondoa minyoo kama ivermectin na levamisole.

Wakati wa Kipindi cha Uzalishaji wa Juu

1. Udhhibiti wa Joto: Ili kutumia kikamilifu faida za kijenetiki za kuku wanaotaga kwa upande wa kiwango cha uzalishaji wa mayai, uwiano wa chakula hadi yai, na kinga, ni muhimu kudhibiti vizuri joto ndani ya nyumba ya kuku. Joto la juu linaweza kusababisha magonjwa ya kuhara, kuongeza uwiano wa chakula hadi yai na kupunguza ubora wa mayai, wakati joto la chini linaweza kusababisha magonjwa ya kupumua, kupunguza kiwango cha uzalishaji wa mayai na ubora wa mayai. Kwa hivyo, joto la mazingira ndani ya nyumba ya kuku linapaswa kudhibitiwa kati ya 16°C na 24°C, ikiwezekana karibu na 20°C.

2. Udhhibiti wa Unyevu: Unyevu bora ndani ya nyumba ya kuku ni kati ya 55% na 60%. Chini ya hali hizi, kinga ya kuku, kiwango cha uzalishaji wa mayai, uwiano wa chakula hadi yai, na ubora wa mayai vinaweza kufikia viwango vya juu zaidi. Kwa hivyo, ni muhimu kupeperusha hewa na kunyunyiza dawa za kuua vijidudu kwa wakati unaofaa ili kurekebisha unyevu.

3. Taa za Kisayansi: Taa zenye udhibiti wa wakati na nguvu sahihi si tu zinadumisha kiwango cha juu cha kinga na ulaji wa chakula kwa kundi la kuku, bali pia zinaongeza kwa ufanisi kiwango cha uzalishaji wa mayai na ubora wa mayai. Taa zinazoangaza sana au zinazoangazwa kwa muda mrefu zinaweza kusababisha kwa urahisi matatizo ya kupigana kwa midomo. Kwa kawaida, nguvu ya taa ndani ya nyumba ya kuku inapaswa kudhibitiwa karibu na nuru 15 na muda wa taa kuwa saa 16.

4. Ukusanyaji wa Mayai kwa Wakati: Kwa kawaida, wakati wa kutaga mayai kwa kuku unazingatia kati ya saa 3 asubuhi na saa 6 mchana, na ni 10% hadi 20% tu ya mayai yanayotagwa alasiri. Kwa hivyo, ukusanyaji wa kwanza wa mayai unapaswa kufanyika baada ya saa 6 mchana, na ukusanyaji wa pili baada ya saa 10 jioni. Ukusanyaji wa mayai kwa wakati si tu unapunguza kwa ufanisi nafasi za mayai kupasuliwa na kuharibika bali pia unachangia malezi na utoaji wa mayai kwa kuchochea mionekano ya kisaikolojia kwa kuku.

5. Lishe ya Chakula: Chagua chakula bora kinachokidhi mahitaji ya lishe ya kuku wanaotaga wakati wa kipindi cha uzalishaji wa juu.

Mambo Mengine ya Kuzingatia

1. Usafi: Wakati wa kusafisha kuku, ni muhimu kuchagua na kuchanganya dawa za kuua vijidudu kwa usahihi na kufuata kwa ukali viwango vya kitaalamu vya usafi ili kufanikisha usafi wenye ufanisi na msongo mdogo na athari za pembeni.

2. Usafi: Inashauriwa kusafisha na kufanya usafi angalau mara mbili kwa wiki, na kufanya usafi wa kinyesi na taka mara moja bila madhara.

3. Hifadhi ya Chakula: Hifadhi chakula kwa mpangilio katika ghala la chakula lenye hewa ya kutosha, kavu, safi, na lenye usafi. Ghala linapaswa kuruhusu kubadilishana hewa na kuwa na kinga dhidi ya unyevu na maji.

4. Kuzuia Ndege, Wanyama, na Panya: Chukua hatua zinazofaa katika nyumba ya kuku na maeneo ya kuhifadhi chakula kuzuia ndege, wanyama, na panya kuingia.

The Common 8 Causes of Chicken Diarrhea

Diarrhea and watery stool are common symptoms of disease in chicken farms. Once chickens start to have diarrhea, it is likely that the chickens have intestinal problems, which should be taken seriously. Intestinal tract is a very important digestive and immune organ of chicken. Intestinal problems will directly affect the chickens' absorption of nutrients, and long-term insufficient nutritional intake will lead to chicken wasting and immunity decline, result in a waste of feed, and increase the chances of chickens getting other diseases.

1. Coccidiosis

Coccidiosis, particularly infections caused by *Eimeria* in the small intestine, is one of the main causes of chicken diarrhea. *Eimeria* species predominantly infest the epithelial cells of the chicken's intestinal mucosa. When they proliferate in large numbers, they lead to pathological changes such as thickening, edema, shedding, and hemorrhage of the intestinal mucosa. These changes prevent the complete digestion and absorption of feed. Moreover, they reduce the absorption of water. Even if the chickens increase water consumption, dehydration may occur. Consequently, the feces of the affected flock are thin and unformed, containing undigested feed.

2. Bacterial infection

Bacteria can cause enteritis and are also one of the causes of enterotoxigenesis. Organisms such as *Salmonella* and *Clostridium perfringens* damage and stimulate the intestinal mucosa, leading to inflammation which in turn accelerates intestinal motility. Excessive secretion of digestive fluid occurs and, with the feed passing through the digestive tract in less time, this results in poor digestion of the feed.

3. Viral infection

Viruses are also one of the contributing factors to enterotoxigenesis. For example, intestinal inflammation caused by rotavirus impairs the absorptive function of the intestines.

4. Imbalance in intestinal pH levels

Factors such as season, feed, and pathogenic microorganisms can make the intestinal flora imbalanced. This results in changes in the intestinal environment, where beneficial bacteria diminish, and harmful bacteria proliferate excessively. The toxins secreted by these bacteria increase, stimulating the intestinal mucosa and accelerating intestinal motility. As a result, there is an increase in the excretion of digestive fluids, which reduces the time for feed to pass through the intestinal tract and causes poor digestion. The undigested feed, along with the shed mucosa, is expelled from the body, resulting in feces with a typical appearance similar to tomatoes or fish intestines.

5. A large loss of electrolytes

The rapid proliferation of coccidia and harmful bacteria leads to poor digestion and impaired absorption in the intestines, which reduces the absorption of electrolytes. Meanwhile, the rapid rupture and disintegration of a large number of intestinal mucosal cells result in a significant loss of electrolytes, leading to physiological and biochemical disorders of chickens and triggering the occurrence of necrotic enteritis. In particular, there will be a substantial loss of potassium ions.

6. Autointoxication

During the process of diarrhea, a large number of intestinal epithelial cells rupture. Under the action of bacteria, these cells decompose and putrefy. Then, they ferment and decompose along with the shedding of the intestinal mucosa and the dead bodies of parasites within the body, producing a large amount of toxic substances in the body. Meanwhile, toxins secreted by abnormal bacterial flora in the intestines are absorbed by the body, leading to autointoxication. Symptoms such as agitation, screaming, paralysis, and exhaustion leading to death may occur. These are also the main manifestations of enterotoxigenesis.

7. Feed

Excessive energy, protein and certain vitamins in the feed can promote the proliferation of bacteria and coccidia, aggravating the diarrhea. Alternatively, too much salt, or excessive nutrition, nutritional imbalance may increase the incidence of diarrhea and aggravating the symptoms. In addition, moldy feed can also aggravate the symptoms.

8. Farming management, drug poisoning, etc.

In farming management, unreasonable temperature and humidity levels in the chicken house can cause the chickens to drink excessive amounts of water. Alternatively, unreasonable use of medications, or long-term use of medications that leads to drug accumulation, can damage the intestinal mucosa and cause enteritis.

In short, there are various causes of chicken diarrhea and other intestinal diseases. The key to solving the problem is to find the right cause and give treatment accordingly.

Sababu 8 za Kawaida za Kuharisha Kuku

Kuhara na kinyesi chenye majimaji ni dalili za kawaida za ugonjwa katika mashamba ya kuku. Mara kuku wanapoanza kuhara, kuna uwezekano kwamba kuku wana matatizo ya matumbo, ambayo yanapaswa kuchukuliwa kwa uzito. Njia ya utumbo ni chombo muhimu sana cha utumbo na kinga ya kuku. Matatizo ya matumbo yataathiri moja kwa moja unyonyaji wa virutubishi vya kuku, na ulaji wa lishe usiotosheleza kwa muda mrefu utapelekea kuku kudhoofika na kupungua kwa kinga, kusababisha upotevu wa malisho, na kuongeza uwezekano wa kuku kupata magonjwa mengine.

1. Ugonjwa wa Coccidiosis

Coccidiosis, hasa maambukizi yanayosababishwa na Eimeria kwenye utumbo mwembamba, ni mojawapo ya sababu kuu za kuhara kwa kuku. Aina za Eimeria mara nyingi huathiri seli za Kuta ya utumbo wa kuku Wanapoongezeka kwa wingi, husababisha mabadiliko ya kiafya kama kuongezeka kwa unene, uvimbe, kumwagika na hemorrhage kwa mucosa ya matumbo. Mabadiliko haya huzuia mmeng'enywa wa chakula kabisa na ufyonzaji wa chakula tumboni Aidha, pia eimeria hupunguza ufyonzaji wa maji. Hata kuku wakiongeza matumizi ya maji, upungufu wa maji unaweza kutokea. Kwa hivyo, kinyesi cha kundi lililoathiriwa ni chembamba na hakijaundwa, pia kinakuwa na mabaki ya chakula ambacho hakijameng'enywa vizuri.

2. Maambukizi ya Bacteria

Bakteria wanaweza kusababisha ugonjwa wa tumbo na pia ni mojawapo ya sababu za enterotoxigenesis. Viumbe kama vile Salmonella na Clostridium perfringens huharibu na kuchochea mucosa ya utumbo, na kusababisha uvimbe ambao huongeza kasi ya matumbo. Utoaji wa maji ya kumeng'anya chakula nyingi hutokea, na malisho kupita kwenye njia ya usagaji chakula kwa muda mfupi, hii husababisha usagaji duni wa chakula.

3. Maambukizi ya virusi

Virusi pia ni mojawapo ya sababu zinazochangia enterotoxigenesis. Kwa mfano, kuvimba kwa matumbo kunakosababishwa na rotavirus ambao huharibu kazi ya kufyonza virutubisho kwa matumbo.

4. Kukosa usawa katika viwango vya pH ya matumbo

Sababu kama vile msimu, malisho na vijidudu vya pathogenic wanaweza kufanya flora ya utumbo kutokuwa na usawa. Hii husababisha mabadiliko katika mazingira ya utumbo, ambapo bakteria wenye manufaa hupungua, na bakteria hatari huongezeka kupita kiasi. Sumu zinazotolewa na bakteria hawa huongezeka, na huchochea mucosa ya matumbo na kuharakisha kasi ya matumbo. Kutokana na hali hiyo, kuna ongezeko la utolewaji wa maji ya kusaga chakula, ambayo hupunguza muda wa chakula kupita kwenye njia ya utumbo na kusababisha mmeng'enywa mbaya wa chakula. Chakula ambacho hakijameng'enywa, pamoja na Kuta zilizotolewa, hutolewa nje ya mwili, na kusababisha kinyesi chenye mwonekano unaofanana na nyanya au matumbo ya samaki.

5. Upungufu mkubwa wa elektroliti

Kuenea kwa kasi kwa coccidia na bakteria hatari husababisha mmeng'enywa mbaya na kuharibika kwa uwezo wa unyonyaji wa matumbo, ambayo hupunguza ufyonzaji wa elektroliti. Wakati huo huo, kupasuka kwa kasi na kutengana kwa idadi kubwa ya seli za Kuta za matumbo husababisha hasara kubwa ya electrolytes, na kusababisha matatizo kwa kuku na kuchochea tukio la ugonjwa wa necrotic enteritis. Hasa, kutakuwa na hasara kubwa ya ioni za potasiamu.

6. Utengenezaji wa sumu kiotomatiki

Wakati wa mchakato wa kuhara, idadi kubwa ya seli za epithelial za matumbo hupasuka. Kutokana na bakteria, seli hizi huoza. Kisha, huchacha na kuoza pamoja na kumwagaika kwa mucosa ya utumbo na za vimelea mfu ndani ya mwili, na kutoa kiasi kikubwa cha sumu mwilini. Wakati huo huo, sumu zinazotolewa na bakteria ambao sio wazuri kwenye utumbo hufyonzwa na mwili, na kusababisha utengenezaji wa sumu. Dalili kama vile fadhaa, kupiga kelele, kupooza, na uchovu unaopelekea kifo huweza kutokea. Hizi pia ni sababu kuu za enterotoxigenesis (kufanyika kwa sumu).

7. Chakula

Nishati nyingi, protini na vitamini fulani katika malisho zinaweza kukuza kuenea kwa bakteria na coccidia, na kuzidisha kuhara. Vinginevyo, chumvi nyingi, au lishe nyingi, kukosa usawa katika lishe inaweza kuongeza matukio ya kuhara na kuzidisha dalili. Kwa kuongeza, kulisha kwa chakula chenye ukungu pia kunaweza kuzidisha dalili.

8. Usimamizi wa ufugaji na sumu ya madawa, nk.

Katika usimamizi wa ufugaji, viwango visivyo sawa vya joto na unyevu kwenye banda la kuku vinaweza kusababisha kuku kunywa maji kupita kiasi. Vinginevyo, matumizi yasiyo faa ya madawa, au matumizi ya muda mrefu ya dawa ambayo husababisha mrundikano wa madawa, ambayo yanapelekea kuharibu Kuta ya utumbo. na kusababisha enteritis.

Kwa ufupi, kuna sababu mbalimbali za kuharisha kwa kuku na magonjwa mengine ya matumbo. Lakini kitu cha muhimu katika kutatua tatizo ni kutafuta sababu sahihi na kutoa matibabu ipasavyo.



THANK YOU
ASANTE



Kenya: +254 710822222

Tanzania: +255 747121343

Uganda: +256 748095222



Kenya: Plot 2989, Kisaju, Kajiado, Nairobi

Tanzania: 81-84 Block A, Misugusugu, Kibaha, Pwani

Uganda: Plot 2507, Nyimbwa, Bambo, Luwero



**BACKBONE
EAST AFRICA**

BACKBONE FEED
GREAT QUALITY & HIGH EFFICIENCY

BACKBONE GROUP
THE LEADER OF AFRICA'S AGRI-FOOD INDUSTRY