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Editorial

**VAWK CHAW
 CHUNGCHANG**

Dr.Ruby Ngurnunmawii Sailo

**ANIMAL DISEASE
 SURVEILLANCE (A.D.S)
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**FOOT AND MOUTH
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**Ar Vulhtute Zawhna Leh
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ditorial



VAWK CHAW CHUNGCHANG

Dr. Ruby Ngurnunmawii Sailo

Vawk vulhtute insen hnem berna chu vawk chaw-ah hian a ni a, insenso zat za zeal sawmsarih atanga sawmriat (70-80%) lai hi chu vawk chaw-ah hman ral a ni. Kan vawk chaw pek a zirin vawk chu a thang chakin a thang chak lo thei a. Vawk chaw atana kan hman thinte hi inang lo thin hle mah se heng thlai leh hnim te hian tangkaina leh thatna an nei theuh a, awmze neia pek an nih chuan an thatna rawn phawk chhuak thei turin kan siam thei a ni.

Vawk chaw-ah hian heng thil- Energy (thahrui siamtu), Protein (chaw tha, timur than nana tangkai tak), tui (water), fats (thau tha mi), Minerals leh vitamins te hi a awm vek tur a ni a. Heng thil hi mamawh dan tawk chauha inpawlkhawm chuan ran tan chaw tha tak a lo ni thei dawn a ni. Chaw hi a that leh that

loh tehna ber chu 'chaw engzat a eiin nge ran kha kg khata a than theih'? tih hi a ni a. Chumi chu Feed Conversion Ratio (FCR) an ti a. He FCR hi a tlem chuan ran chaw kha a tha tihna a ni a, vawkin chaw kg 3 a eiin a rihna chu kg 1 zelin a pung tur a ni. Chumi a nih chuan a FCR chu 1:3 tihna a lo ni a. Heta vawk chaw tia ka rawn sawi bik hi chu readymade chaw, pigfeed kan tih mai, Concentrate feed bik hi a ni. Vawk chaw kan pek dan hi a inang lo hle a, a thenin pig feed hlang an pek theih laiin a thenin hnimhnah leh kan ei bang ningnawi chauh pe thei kan awm bawk a. Pigfeed bik kan pek hi Concentrate feeding an ti a, chaw nawi leh thlai leh hnim ilo pek hi Garbage feeding/swill feeding an ti thung. Kan vawk vulhte hi an upat dan azirin an taksa hian mamawh a lo

nei hrang thlap mai a, a bik takin Energy leh Protein te hi nitina an mamawh tawk tuk vek a ni. Heng an mamawh te hi an chaw ei atanga an hmuh loh chuan tlakchham neuh neuhte an lo nei thei a, thang thei lovin, vawkpui hur tha thei lo te leh no pai puitling thei lo te an awm phah thei thin.

Vawk chaw chuan kan ran vulh upat dan ang zelin an taksa mamawh a phuhru zel tur a ni a. Chaw tha kan tihte chuan heng a hnuaia kan tarlante hi a fawmkem vek tur a ni.

9.1.1) Vawk chaw tha chuan thil tha, taksa mamawh tur hrang hrang inbuk tawkin a pai vek tur ani (Balanced ration)

9.1.2) Ei a nuamin a him tur a ni (palatable & safe)

9.1.3) Awlsam taka hmuh emaw lei theihin a awm tur a ni (easily available)

9.1.4) Vawk len leh upat dan ang zelin mamawh a phuhru

tur a ni (meet nutritional demand)

Vawk chaw tha chuan kan farm deh chhuah a that na lang dawn a. A chaw kan pek azirin a sa quality pawh a tha-in a than pawh a tha zel dawn a ni.

Pigfeed-a energy petu ber chu vaimim a ni a, energy sang tak nei thlai ni mah se protein kha a hniam ve leh thei si a. Chuvangin ran chaw in-balance turin protein tamna tur thlai dang pawlh a lo ngai leh thin a ni.

Eng pawh nise, vawkin energy a mamawh zat hi 3400 DEKcal/kg-a chhut thin a ni a, a awmzia chu a chaw kg1-ah energy chu engzat digestible energy nge awm tih chhutna mai a ni. Energy chu kilocalorie-a chhut chhuah thin a ni.

Heng an mamawh te hi an mithiamten chhut chhuakin, a mil turin chaw an siam ta thin a ni. Vawk chaw

kan tih hian thil paruk (6) sawi tel ngei ngei tur a awm a, chungte chu : *Tui, Carbohydrates, Protein, Fats, Mineral mixtures leh Vitamins* te an ni.

9.2.1) Tui: Duh tawk in tur tui thianghlim vawkin a mamawh a. tui hian chaw ei atanga thil tha (Nutrients) chu taksa peng hrang hrangah keng kualin a sem darh thin a. Chumi bakah taksa thil tha lote chu paih chhuakin taksa hriselna a vawng thin.

9.2.2) Carbohydrates: Taksa lumna petu a nih mai bakah tha hrui (energy) petu a ni a, taksa thauna a pe tel bawk. Heng chaw tha kan sawi zawng zawng zingah hian carbohydrates tamna hi vawk chuan a mamawhna a sang ber a. carbohydrates hi vaimimah te, wheat-ah te, buhfai ah te a tam bik a. tin, wheatvai, buhkem, favai-ah te pawh a tam thawkhat bawk. Heng kan sawi tawhte bakah hian carbohydrates tamna hi a la awm nual a,

amaherawhchu Mizoram kan hmuh theih awlsam zualte chauh ka rawn tarlang a ni.

Vawk hi mihring ang bawk a pumpui pakhat chauh nei a ni a, a chaw-ah hian fe pai tam chi(fibre) pawlh hnem lutuk tur a ni lo. Thil fe tamna chu pumpui pali nei Bawngte angin a pumpui a zo ve lova, a pumin a thial sawm thei lova, kawthalo te lo awmin, an ei kha a ngai ngaiin an rawn e chhuak leh thin. Tin ,vawk hian fe pai tam a ei hnem lutuk chuan kawng chin hnuai lam zeng emaw zawi emaw (ceippling disease) a vei duh hle a,an ke hnungte baiin, a changing a khawng ut thin a ni. An ek a tui reng avangin an chaw a thil tha (Nutrients) kha a taksain a thatna pawh hmang thei lovin a ek-ah a chhuakzel tihna a lo ni a, an than theih loh phah thin.

9.2.3) Protein: Protein chu chaw tha hlang, timur ti thangtu niin, tihrawl saimtu

ber a ni. Ran tihral chu Sa(Meat) kan tih hi a ni mai a. Ran vulhin protein a lo tlakchham palh chuan a taksaah harsatna tam tak awm thei a ,an than te a lo thu a, an lu te lawk burin, taksa te zet te pawh an nei thei a ni. Tin, Vawkno hruai laina hnutetui a lo tlakchham phah thei a, chaw ei tui lo te, vawpui pawh a no lak hran hnu pawha hur har deuh te a lo awm phah thei bawk. Ran in protein a hmuhna be rte chu Fishmeal (sangha leh luilam sa a chaw a an pawlh chi) ah te, GNcake (badam hriak her tawhna fe) ah te, soyabean meal(bekang) atang ten a ni tlangpui. Kan sawi tawh angin vawkin protein a mamawh hi a upat dan azirin a dang ve zel a, chung te chu: Preweaner-22%, Weaner-22%, Grower-18%, Finisher-16%

9.2.4) Fatty Acids (Thau thami): Vawk than that nan te, a vun a lo hrisel nan te, inthlalhchhawanna lamah pawh fatty acids hi vawkin a

mamawh hle a. vawkin Fatty acids a tlakchhama a awm dan chu bung 17-naah tarlan a ni. He thil pawimawh tak hi tlakchham a nih loh na turin a chaw ei turah thil mawm lam pawlh thin tur a ni. Vawk hriak emaw bawng thau emaw te leh thlai lam atanga hriak herchhuah, heng Oil palm hriak te, Coconut hriak leh Soyabean(Bekang) hriak/ tel hi an chaw ah pawlh ve zeuh zeuh thin tur a ni. Heng hian energy engemaw chen ah an pek bakah fatty acids te a pe tel a ni. Amaherawhchu, a chaw a hriak pawlh hnem lutuk pawh hi a thau a ti nem luarh duh a, chu chu “Soft Fat Pork” an ti.

9.2.5) Mineral Mixture Leh Vitamins: Vitamins hi eng nge a nih? Rosenberg chuan *“Vitamins chu thil engemaw, taksain thanna atan te, taksa peng hrang hrang inenkawl nan leh hna an lo thawh that theihna tur atan bei tham taka mamawh a ni.”* Tiin a lo sawi a ni. Mamawh zat hi tlem hle

mahse taksain a mamawh zat hmuh loh erawh chuan taksaah nghawng tha lo tak a awm thei hlauh thung.

Vitamins hi fat soluble (Vit. A,D,E,K) leh water soluble (Vit B complex leh vitamin C) te an ni a. vit B complex chu Thiamine (B1), Riboflavin (B2), Nicotinic acid, Pyridoxine (B6), Pantothenic acid, Biotin, Folic acid, Choline leh Cyanoconalamin (B12) te an ni. Hengte hi ranin a taksaa a siam theih loh a ni a, a chaw atanga a taksain a mamawh tawh ang a hmuh loh palh chuan taksa khawlpui hrang hrang hnathawh theih loh phahna a thlen thei. An taksain tam tak mamawh lo mahse an mamawh zat ang an hmuh ngei ngei erawh a ngai tlat thung. Mipui nawlpuiina kan hriatthiam dan chuan 'a vitamin kan pek thin te' kha a ni a. A tui chi te, a phut chi te pawh awmin, a chawah kan pawlh mai thin. Mineral mixture chu minerals hrang hrang awm khawm tihna a ni

a, minerals tam tak zingah kan hriat lar ber pawl chu Calcium hi a ni awm e.

Minerals te hi ruh siamtu te, ha leh tihrawl siamtu pawimawh tak an nih mai bakah thisen siamna ah te a pawimawh hle ani. Awle, tunah minerals ho chu eng engte nge an nih lo sawi lang dawn ila. Minerals hi 40 vel taksaah hian awm niin chhut a ni a, heng zinga 14 hi taksa tana pawimawh leh hnathawk thin nia hriat an ni. Chuvangin heng chi 14 te hi Essential (pawimawh, mamawh)-ah dah bik an ni ta a. Chungte chu- *Calcium, Magnesium, Sodium Potassium, Phosphorus, Chlorine, Sulphur, Manganese, Iron, Copper, Iodine, Zinc, Cobalt, Selenium*. Heng minerals leh vitamins te hnathawh dan leh taksain a mamawh zat a hmuh loh vanga an taksain a lo tawrh dan chu he leh khabu bung 17-naah kimchang zawka ziah a ni.



ANIMAL DISEASE SURVEILLANCE (A.D.S)

RAN NATNA ZAWN CHHUAH HNA

Ranvulhtute tan, hlawk zawk leh chhungkaw chawmna tham eizawmna tlinga ranvulh tur chuan, he lama mithimaten ran natna hrang hrang zawn chhuahna, a hun taka enkawl na dik tak pek ngei ngei a ngai thin a ni. Mizoram leh India ramah ngei pawh ranvulha eizawngtu tam takin an hlawhchhamna leh an bansanna hial tam tak chuan ranvulh damlohna avanga an hlawk loh leh an thihpui hial thin vang hi a ni.

He dinhmun hriat sakna leh ranvulhtute harsatna sutkian sak turin India sorkar chuan ran damlohna leh hritlang thin hrang hrangte zawn chhuah hna, Animal Disease Surveillance programme hi 6th Five Year Plan atang daih tawh khan a lo tan tawh a ni. Natna zawn chhuahna kawnga khawvel ram hrang hrang inzawm khawm pawl O.I.E ah pawh member niin hr pawl kahhruaina(guidline) zul zui hian nasa taka hma lak chhoh zel a ni. Natna hrang hrang leh a len hun, ranin an tawrh dan, an hlaur bikna hmun leh a hun te uluk taka zir chian a nih hnuin vaccine leh thil dang hmanga ven lawk dante leh a damlote damdawi hmang a enkawl dan turte duan chhuah a ni thin a. Tichuan rampum huapa natna hrang hrangte zir chinag tuin hma lak a ni a. Awmze nei taka enkawl a, a hri ven leh tihrem dan tur te a duang chhuak chho mek zel a ni.

India rama cheng mipui tam berte hian sakhaw thil avangin Bawng leh Lawi sate an ei thiang lo va. Chutih laiin india ram hi khawvel pum huapin Bawng neitu tam

berte zing ami ani phak a. Heng Bawng leh Lawi te hi hna thawka chawr an ni deuh ber a. An lo upat hnu a hna thawka chhawr tlak loh na nih hnu hian ram chhungah hmanna tur a vang thin hle a. An that leh chak laia an tangkai teh lul nen, an hnawksak lek lek thin a ni. Amaherawhchu vanneihthlak takin heng Bawng leh Lawi tarte leh ranvulh dang te pawh ram dangah thawn chhuakin, heng atang hian sum tam tak Indai remain a lalut thin a. Ram chhung economic dinhmun pawh a chawikang ve thin a ni.

India rama ran natna thenkhat tihrem a ni a, adang pawh tihrem leh control tuma nasa tak leh urhsun taka thawh mek zel a ni. Hetih lai hian India rama tihrem tawh leh control tawh ran natna te hi ram dang atangin an lo lut ang tih a hlauhawm hle mai a. Chuvangin heng ran vulh hmanga kan insumdawn-tawnaah hian kan fimkhur

tlan a, kan ran vulhte an him theihna tura A.H & Vety. Deparment ten check gate kan neih chhun chhun atang an check thin te hi mipuiin kan ngaih pawimawh tlan a ngai hlei a ni. A nihna takah chuan mipui a hria apiangin “Hei, ram dang atangin ran an rawn la lut a, kan ram chhunga ran kan vulh ang ang te an him theih nan, ram dang ran lo lutte hi ranen check hram the u,” tia in au chhuah pawh hi a ngai zwk khawp a ni. Chuti ni lo va, check gate helruk tuma ram chhung mite zawkin Vety. thawktute in relhruk san chuan kan inveng him thei lo ang tih a hlauhawm takzet a ni. Chvangan, hawh u, I tang tlang ang u khai, invenna hi nat hrep hnu a tihdam leh tum aain a hluin a tha zawk si a. Tichuan ranleh ran atanga siam chhuah hmanga in sumdawn-tawnaah pawh hi a kal tluang thei zawk dawn a ni.

Ran hrisel leh hlawk taka vulh a nih theih nan te,

ram leh ransa atanga siam hmanga insumdawntawwna tlaung taka a kal theih nante, ran natna thenkhat “Economically Important Disease” te uluk taka ngaihtuah a, awmze nei taka hmalak nghal zel hi a pawimawh hmasa a ni tih Sorkar pawhin a hria a, chak takin hma a la mek reng a. Sorkar project pawimawh tak a ni chho reng dawn a ni.

India ram hi ram zau tak a nih avangin, hmun hrang hrang ran natna thlen dan te awlsam tak leh rang taka kan inhrilh zung zung theih nan te, ran damlo enkawl leh ran hri ven dan kawgah te awlsam tak a hma lak thuaia nih theih nan Information System pawh uluk taka duan a ni a. Tunlai hmasawwna mil zela kal pui a ni a. Hemi atan hian Computer E-Mail leh hmanraw dang dangte hmangin thingtlang(village) level-a natna thlengte District leh State Headquater kal tlangin Government of India, New Delhi-ah kan hriattir thei nghal zel a ni.

Ran natna hrang hrang te, an pawimawh dan azirnin then hran a ni a. Chungte chuan code No. an nei vek a. Tin, ran chi hrang hrang natna hriat hran a nih theih nan Species code No pek vek bawk an ni a. Hei khawvel huapa pawm leh hman tlan vek an ni. Hriat thiam theih nan ran natna thenkhat hetiang hian entirna a ni:

Disease code no.	Natna Hming	Mizo tawngin
A010	FMD	Ran ke na
A011	FMD-Virus ‘O’	Ran ke na (Zorama awm mek chi hi a ni)
A130	Hog Cholera	Vawk pulhri
B058	Rabies	Ui a hri
C921	Canine Distemper	Ui pul hri

FOOT AND MOUTH DISEASE

FMD chu eng nge ni?

FMD (Foot and Mouth Disease) chu Mizo in Ran ke leh ka na hri ti a kan hriat, awlsam taka inkaichhawn theih a ni.

Engvanga pawimawh nge a nih?

He natna hian nasa takin bawngnute tharchhuah a tihnam a, ran an than theih loh bakah an chakna te an hloh a, an damchhunga hmantlak lohin a siam thei, ran naupangah thihna a thleng thei a, a rai laiah phei chuan no an chhiat phah thei. He natna avanga kan ramin kum tin sum hloh zat chu cheng vaibelchhe 18,000 lai a chhut a ni. Chuvangin he natna hian ram economic a nghawng avangin a pawimawh hle a ni.

Eng vanga lo awm nge a nih?

FMD hi virus (Aphovirus) vanga lo awm a ni a. He virus hi hlawm lian pui pui chi 7 leh hlawm te deuh engemaw zatah then a ni a, chung zinga mi Serotypes pali, viz. O, A, C leh Asia 1 te hi kan ramah hmun a ni ngai tawh lo. FMD vei zinga za a sawmriat(80%) vel hi Serotype O vanga thleng a ni.

Eng ran te'n nge vei thin?

Ran ke tin kak zang zang – mihringin kan vulh thinte leh ramsa ten an vei theih laiin Bawng, Lawi, Sial leh Vawk te hian an vei deuh bik.

Natna inkaichhawn dan –

He natna vei ran atang hian awlsam takin a kaichhawn theih a. He virus hi a natna vei ten an chilah te, hnute tui leh zunah te tam tak an tichhuak a, chung chuan Bawng chaw-Buhpawl, hnim leh tuie, etc. te ti bawhlawhin, heng atang hian ran dang ten awlsam takin an lo kai ve thuai thin a ni. Tin,

Vawkah chuan an hnapah pawh virus tam tak a awm avangin a natna thehdarhtu pawimawh tak a ni thei bawk.

A tlangpuiin he natna hrik hi boruak atanga hip luh a ni a, tin an ei leh in atang te, an mit leh a serh atang te pawhin an kai bawk thin a ni.

A natna lanchhuah dan –

An khua a sik a, an chil a tla duah duah a, an ke a bai bawk thin. An ka, ke tin bul leh an hnute bu ah durh lo insiamin, heng durh te hi a keh hnuah a lo pan thin a ni. Ran note ah te chuan a natna langchhuak lovin an thi thut thei bawk a ni. FMD avang hian chaw an ei thei lo va, an hnute tui pawh a tlakhniam phah thei hle a ni.

Natna hri a lo lenin engtia hmalak tur nge?

Natna a leng tih hriat a nih ve leh Veterinary Doctor-te hnenah emaw a hnuaia hming ziak hnenah emaw hriattir vat tur a ni. He natna vei ran te chu rang taka enkawl vat tur a ni a, an ka len an ke tin kar te chu tuisen (Potassium Permanganate hi tui litre 3 ah gram 1 telh tur a ni) a silfai sak tur a ni. Chumi zawhah an ka ah Boroglycerol hnawih a, an ke leh an hnute bu pan laiah pem thar damdawi (antiseptic cream) hnawih/ phuh bawk tur a ni. Hetiang natna vei ran te chu dah hrana uluk taka enkawl zui bawk tur a ni. A tul phei chuan mithiamte rawn chungin antibiotic hmanga enkawl tur a ni.

He natna hi engtin nge kan ven ang?

He natna ven dan tha ber chu regular taka hri danna (Vaccine) pek thin tur a ni. A hri venna (Vaccine)- Clovax, Raksha Ovac, Futvac leh a dangte pawh lei mai theih turin a awm a. A.H & Veterianry Deptt-ah pawh englai pawha hmuh theih reng a ni. Vaccine hi ran puitlingah chuan kum khatah vawi hnih pek thin tur a ni a, a note erawh chu a pian atanga

thla hnih a pek a, chumi hnu thla khatah pek chhonzawm leh tur a ni. Hei bakah hian regular takin thla ruk danah pek chhonzawm ziah tur a ni. Vaccine pek hun tha ber chu March leh September thla te a ni.

Vaccine hi boruak lum a dah chi a ni lo va, chuingin Fridge-ah (2^0 - 4^0 C) emaw, vur hmangin emaw dahthat tur a ni, Veng/khua a ran awm zawnz zawnz chu tum khatah a hri venna chiu vek hi a tha ber a ni.

Hri leng hi engvanga report vat tur nge a nih?

He natna hri a lo len a report vat a thatna te chu-

- (1) Eng natna ber nge leng (serotype) tih hriat awlsam nan.
- (2) Hri leng a darh zel loh nan.
- (3) Natna hri leng hriatchian leh zual awlsam nan.
- (4) Engtia hmalak tur nge hriat zung zung theih nan.

FMD hi hri hlauhawm tak a ni a. Amaherawh chu, a hun takah hriatchhuah a nih erawh chuan ven theih a nih avangin ran vulhtuten mithiamte hnenah report zung zung hi kan mawhphurhna a ni.

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Ar Vulhtute Zawhna Leh Chhanna

-Dr.K.Lalrintluanga M.V.Sc.

Zawhna 1. Arpui nge upa artui?

Chhanna - Arpui le ! (Gen 1:21)

Zawhna 2. Ar hi engtia upa an nih in nge an tui?

Chhanna- Chawlhkar 20 vel an nihin an tui tan thei.

Zawhna 3. Arpa pawl lohin arpui ringawt hi a tui thei em?

Chhanna- Artui hi a nu chi a ni mai a, hmeichhia pawh, mipa tel lova an awm mai main thlatin an chi an chhuahin “thi” an nei ang hian- Arpui hi a pa tel lovin a tui thei khawp mai.

Zawhna 4. Arpa pawl loh artui chu awpkeu tir atan a that ho em?

Chhanna- Tha lo, a keu thei lo.

Zawhna 5. Chutichu artui pakhat keu thei a siam turin arpui chu a pain a pawl ziah a ngai a ni maw?

Chhanna- Ngai love, arpain vawi khat a pawl hian arpui tui hmasa 5-7 vel thleng hi chu an keu thei tho a lawm.

Zawhna 6. Chu chu engtin nge a nih theih?

Chhanna- Arpa chi hi arpui chi kawng velah hian a tlem berah ni 5-11 vel thleng an dam thei a, chu chuan arpui chi nitina lo chhuak kha a lo kawp/K.S pui hmiah zel thin a ni.

Zawhna 7. Awpkeu tir a tan artui lian nge tha a te?

Chhanna- A lian lutuk leh a te lutuk a tha lo a, a tuitu ar thlah a zirin a tui len zawng tlangpui (average) a lian hi a tha ber. A tlangpuiin artui 53-58 grm vela rit hi an keu tha ber.

Zawhna 8. Artui lian atanga arnote keu hi a lian deuh em?

Chhanna- Lian deuh e. Ar keuh hlim reng reng hi a artui rih zawng za-a sawmrukpa (65%) vela rit an ni thin.

Zawhna 9. Chuti a nih chuan artui lian tha apiang hi awptir atan chuan a tha a ni mai lawm ni?

Chhanna- Nimai love, a lian hi an keu tha duh vak lova, a keu loh chuan engtihna mah a ni chuang hlei nem.

Zawhna 10. Awpkeu tir tur hian ar upa tui nge tha a, a tui tan tur tui?

Chhanna- A tui vanglai tak a, “a tui” hi a tha ber. Ar upa tui leh, a la tui hi an keu tha duh vak lova. Tin ar la a tui hmasa ber hi za-ah sawm (10%) vel chauh a keu thei, a tui pahnihna hi za-ah sawmli (40%) vel chauh a keu thei a ni.

Zawhna 11. Artui sawl deuh hi a arpa tur an ti thin a, a dik em?

Chhanna- Artui sawl deuh hi a pa tur a awm a, a ni tur pawh a awm bawk a, a sawl

avanga a pa tur a nihna chu a awm chuang dawn em ni?!

Zawhna 12. Atui hi arpui in a awp hian ni engzatnge an awp keu thin?

Chhanna- Ni 21 velah an awp keu thei.

Zawhna 13. Artui keu tha turin egtia lum nge tha tawk?

Chhanna- 35.5°C to 38°C vel.

Zawhna 14. Artuia arnote inseam thei tura Temperature hniam thei ber eng zat nge?

Chhanna- Ar note inseam thei tura temperature hniam ber hi ‘physiological zero’ an ti a ,chu chu 25°C – 27°C a ni.

Zawhna 15. Artui eng tia upa/rei hi nge awp tir ila tha?

Chhanna- An tui ni atanga ni 7 vel chhung ngei hina awptir ila a a keu tha duh ber.

To be continue



Mizorama Ar natna langsar zualte

- Dr. Lalhruaipuii and Dr. Lalrempuii

ICAR-RC for NEH Region, Mizoram Centre, Kolasib-
796081 (Mizoram) Mob. No. 9612155176

1. Fowl Typhoid :

Natna thlentu : *Salmonella gallinarum*

Kum bi thliah : Arte atanga ar puitling thlengin an vei thei (A puitlingah a hluarbik).

Kai chhawn dan : A tui atangin, chaw leh tui thianghlimlo ei atangin.

Mortality : 10-50%

A lan chhuah dan: Chaw eitui lo, hmulpawr, thla uai thla, ek hring, ngui

Lesion (Kawchhung awm dan): An thin a lian a, a eng sen (tin tui ek rawng) deuh luap thin.

Enkawl dan : Furaltadone @0.5 – 1g tui litre khat a pawlha ni 7 chhung pek.

2. Pullorum Disease/ Bacillary White Diarrhoea:

Natna thlentu : *Salmonella pullorum*

Kum bi thliah : A tlangpuiin ar note pianghlim ah a tam.

Kai chhawn dan : A tui lain.

Mortality : 90% thlengin

A lan chhuah dan : Mutchhuak, chaw ei duh lo, thawk harsa, ek var, mawng berh, rang taka thihna.

Lesion (Kawchhung awm dan) : Arte ah thin lian leh a vara de thek thek. Arpui tlingah chhul pian hmang dik lo leh rawng dik lo.

Enkawl dan : Furaltadone @0.5 – 1g tui litre khat a pawlh a, ni 7 chhung pek.

3. Infectious Coryza :

Natna thlentu : *Haemophilus gallinarum*

Kum bi thliah : Arte atanga ar puitling thlengin an vei thei (A puitlingah a hluar bik).

Kai chhawn dan: Boruak atangin.
Mortality : Thihna thlen em a hlauhawm lo, kai darh erawh a awlsam.
A lan chhuah dan: Hmai vung, hnar leh mit atanga hnai khal chhuak, thlik thlidir (wattle) vung, hah chhiau, 10 – 40% thleng a tui keu theihna tlahniam, chaw ei tui lo, ngui.
Lesion (Kawchhung awm dan) : Hnar , mit leh hmai ruh inkarah hngang ang chi hnai var tam tak a awm
Enkaw dan : Sulfamezathine @ 30 ml tui litre khat a pawlh a, ni 5-7 chhung pek.

4. Chronic Respiratory Disease (CRD):

Natna thlentu : *Mycoplasma gallisepticum*
Kumbithliah : Arte atanga ar puitling thlengin an veithei (Arte ah a hluarbik).
Kai chhawndan: A keu lai leh boruak atangin.
Mortality : Ar note ah 30 – 40 %.
A lan chhuah dan: Thaw ri bawrh bawrh, hnap tui tla, khuh, chaw eitui lo, 50% lain a tui a tlahniam.
Lesion (Kawchhung awm dan) : Thawkna dawt ah thil hngang khal tak (cheesy materials) a awm.
Enkaw dan : Tetracycline powder/ Tylosin@ 1g tui litre khat a pawlh a, ni 7 chhung pek.

5. Air sacculitis and Collibacillosis :

Natna thlentu : *E. coli*
Kumbithliah : Arte kar 5 – 10 a upa.
Kai chhawndan: A keu lai leh boruak atangin.
Mortality : 5 – 10 %.
A lan chhuah dan: Thawk harsat na, kawthalo, mawng berh.
Enkaw dan : Tetracycline powder@ 1g tui litre khat a pawlh a, ni 7 chhung pek.

6. Ranikhet Disease/ New Castle Disease :

Natna thlentu : Paramyxovirus
Kumbithliah : Arte atanga arpui tling thlengin an vei thin.

- Kai chhawn dan: Ar chaw, tui leh boruak thinghlim lo (infected) atangin.
- Mortality : 50 – 90 %.
- A lan chhuah dan: Thawk dan a tibuai, hmulpawr, kawtha lo ek hring, ke pakhat emaw a pahniha zeng, khur, nghawng inherh, artui laiah a tui a chawl, ngui.
- Enkawldan : Enkawldan vak a awm lo, a kaidarh loh nana antibiotics pek.
- Vaccination : Karkhat naah a mit ah emaw a hnar ah Lasota vaccine far 1 far; kar 8-na leh 18-naah R₂B Mekteshwar vaccine 0.5 ml I/ M pek tur.

7. Fowl Pox/ Avian Pox :

- Natna thlentu : Avipox virus
- Kumbithliah : Ar naupang ah a hluar bika a puitlingah a tlem deuh.
- Kai chhawn dan: Pem, hliam leh rannung seh atangin.
- Mortality : Ar note ah 50 %.
- A lanchhuahdan: A chhuang, thlikthlidir (wattle), hmai, mit ko-ah pan khir a awm.
- Enkawldan : Terramycin powder 5g tui litre 4.5-apawlh a pek tur, antiseptic lotion hnawihbawktur.
- Vaccination : Fowl pox vaccine-in kar 6-naah leh kar 16-naah injection tur (Wing web method)

8. Infectious Bursal Disease/ GumboroDisease :

- Natna thlentu : Birna virus
- Kumbi thliah : Ar kar 2 atanga kar 7-aupate'n an vei awlsam.
- Kai chhawn dan: Ar chaw, tui leh chaw pekna thianghlim lo atangin.
- Mortality : Ar tui laiah 40 %.

A lanchhuah dan: Mit meng lo, hmul pawr, kawtha lo, nguai, khur, mawngberh, ek rawng eng (yellow)

Enkawl dan : Natna dang kai loh nan antibiotic pek tur.
 Vaccination : IBD vaccine – ni 1-naah kaah far khat far; ni 28-na atanga ni 32-naah tui in tur a pawlh; ni 42-na atanga ni 46-naah tui in tur a pawlh.

9. Coccidiosis :

Natna thlentu : Broiler-ah *Eimeria tenella*, *E. maxima*, *E. acervulina* leh *E. mivati*.
 Layer-ah *E. Burnetti* leh *E. necatrix*.

Kumbi thliah : Arte atanga a puitling thlengin an veithei a, kar 6 – 8 ah a hluar; kar 3- 5 a upa in an vei awlsam bik.

Kai chhawn dan: Chaw, tuithianghlim lo leh ek atangin.
 Mortality : 0 - 50 %.

A lanchhuah dan: Ek thi, mawng berh, rih na tlahniam, hmul pawr, nguai, chaw eitui lo.

Enkawl dan : Coccidiostat emaw Anticox emaw Amprolium soluble powder 20% tui litre 1 ah 50- 60gm pawlh in ni 7 chhung pek tur ani.

Natna laka Ar vendan :

1. Tuithianghlim chauh pek tur.
2. Chaw tha leh thianghlim chauh pek tur.
3. Chaw hmuar leh hlui pek loh tur.
4. Ar chaw ei thin thlak thut loh tur.
5. Boruak thianghlim luh theihna tur siamsak tur.
6. Tawt takin dah loh tur.
7. An awmna chhuat a hul tha tur a ni a, thlaksak fo tur a ni.
8. Boruak thianghlim lo ar in chhungah luhtir loh tur.
9. Chaw pekna leh tui pekna hmanrua fai taka sil tur a ni.
10. Ar in leh a vel a fai tha tur a ni.
11. Pawn lam mi (visitor) ar in chhungah luh tir loh tur.

One Health : Hriselna Huapzo

Dr. Mahminga Sailo, M.V.Sc.(Med.)

Waggin' Tails, Bawngkawn

Hriselna huapzo kaihthawh thar a ni

Kum AD 2000 laihawl khan khawvel puma hriselna lama thawktu pawl lian tak tak World Health Organization (WHO), World Organization for Animal Health (OIE), Food and Agriculture Organization (FAO), Center for Disease Control and Prevention (CDC) leh pawl lian tak tak tangrual chuan mihring hrisel zelna tura pawimawh em em Hriselna huapzo (One Health) hi thupua neiin, a hlawhtlin theih nan kawng hrang hrangin hma an la mek zel a ni. 'Kaihthawh thar a ni', han tih theih a nih chhan pawh kum BC 400 vel daih tawh khan Greek mi Hippocrates khanhriselna atana pawimawh - Boruak, Tui leh Chenna (Air, Water and Places) a hrisel kim a pawimawh thu 'One

Medicine' tia vuahin a lo au chhuahpui daih tawh vang a ni.

Hriselna huapzoin a tum ber chu kawng tinrenga hriselna lama thawh ho a ni. Khawvela mihring kan chen chhung chuan natnahrik, anmahnia nunna nei emaw nunna nei dang taksa hnea damkhawchhuak ve mai pawh ni se, mihring taksa ringawt an chhah buai bik lo va. Mihring leh mihring atang te, ranvulh/ ramsa atangin emaw chenna leh avel atangin natnahrik hi che kual ve reng a.

Tin, heng natnahrikte hi an damkhawchhuah nan a tul leh an mamawh angin an insiam rem (mutate) ve hret hret thin baw. Hei vang tak hian natna kan hriat ngai lem loh te avangin ran leh mihring kan na-in kan thi fo va; tin natna hri leng tawh sa te pawn

len nawn chang (emerging) an nei fo bawk. Hei vang tak hian mihring hriselna lama thawk (Medical) lam ringawtin hma lak kim theih a ni bik lova, Ran leh ramsa hriselna lama thawktu (Veterinarian) te leh pawl hrang hrang tanrual a tul ta reng a ni.

Covid-19 leh a kaihnawih

A chung a kan sawilan tak ang khian nikum kum tawp lam atanga Wuhan, China ram atanga rawn irh chhuak natna tihbaiaawm tak Covid-19 (2019-nCov Hrikhmi leng mek hi tih thupui hmangin he chanchinbuah hian ziah tawh a ni) pawh hi a thlentu natna hrik Coronavirus chhungkua ami tho hian kum 2003 khan Severe Acute Respiratory Syndrome (SARS) thlenin mi 774 laiin nunna an chan a. Kum 2012 khan Saudi Arabia, Middle East, Affrica, Asia leh Europe hmun thenkhatah Middle East Respiratory Syndrome (MERS) tih hming vuah hial khawpa inlarin mi 858 lai nun suattu a ni bawk.

Covid-19 vang pheih chuan khawvel pum kan buai a, kan beisei leh rin phak bakin khawsakphung a buai ta nuai mai a nih hi!

Heng natnahrik rawn irh chhuahna erawh mihring ni lovin ramsa an ni deuh zel a. Tin, natnahrik hian mihring taksa an run hian zawi zawia insiam danglamin mihring leh mihring kara inkaichhawn theihin an insiam danglam thin. Hei tak hi a ni, natna hrileng vanga mihring kan buaiphili fona chhan chu.

Mihring hriselna

Pathianin khawvel a siam khan mihringte hi thilsiam zinga chungnung ber leh thilsiam dangte chung a thunei turin a siam a. Amarawhchu mihring vek bawhchhiatna avanga Pathian anchhia dawngtu mihringte chu khawsakphung, ei leh in, in leh lote changkang viau tawh mah se; natnahrik, mit lawnga hmuh theih loh khawpa te chuan min chawk buai reng a. Kan ni tin

khawsak leh eizawna te avangin kan chhuakin kan intlawhpawh lo thei baw si lo. Chuvangin, kan hriselna kan ngaipawimawhin kan fimkhur reng tur a ni.

Chutih rualin khawvelah hian mihring chauh kan cheng lo va, kan hrisel zawkna tur chuan kan kuta awm te hriselna kan ngaihpaawimawhsak erawh kan tih makmawh a ni. Tin, Pathian thilsiam hluttute tawngkam takin duat taka mihringte min chawitu 'Mother Earth' ti hiala an koh kan chenna khawvel hi duat taka kan enkawl a tulin kan inzirtir thar zel a pawimawh.

Ranvulh/Ramsate hriselna

Natna tam tak, ranvulh/ramsa leh mihringin kan inkaichhawntawn theih an awm a. Natna thenkhat chu fimkhur loh vang liau liaua kan kai laiin, thenkhat erawh mihring fimkhurna pawhin a ven sen loh vanga kai te a awm thei baw.

Abik takin tunlaih pheih chuan ranvulh mai ni lovin ran chenpui kan intihhmuh chho zel a. Duat taka ina chenpui leh kan khum ngeia mut tir duh hial khawpa ran ngaina leh hmangaih te kan pung zel. Kan sawi tawh angin, natnahrikte hian an damkhawchhuahna remchang hi an zawng ve ngar ngar baw si a. Ranvulh leh ranchenpuite atanga natna kan kaichhawn theih laka kan himna tur chuan hrisel leh thianghlim taka kan enkawl a tul. Tin, sa atanga kaichhawn theih natna tam tak a awm baw avangin, kan ei leh in turah te kan fimkhur a tul tak zet.

Chenna leh avel hriselna

Nungcha zawng zawng kan chenna, khawvel a nih vangin kan duh leh mamawh engkim kan siam a, kan paihna a ni a. Khawvel pum erawh kan kuta awm thei a nih loh laiin kan chenna leh avel tal vawng fai a, hrisel turin theihtawp kan chhuah thei

thung. Sawi tur tam tak a awm
laiin sawi sen a ni lovang.

Thil hote pakhat 'Save
Chite Lui' project hi Aizawl
DC hmalakna ngai khawp
hiala kan ngaihven a ni ta a.
Aizawl chhuahlam veng, Chite
lui hnara chengte hian kan
hnawmhnawk paih thin hi paih
miah lo ila, hnatlanga Chite lui
thenfai fo hi a tul lo vang.
Chhungkua, kohhran, sikul leh
vantlang thlengin kan inzirtir
a, a taka kan chet thuai a tul. A
ler atanga thuai leh pawp lo
hian.

Thawkho thiam ila

Covid-19 hripui leng
ang chi hi kum za inkar dan
emaw a leng thin niin thil
chikmi te chuan an sawi a, thil
ni thei tak pawh a ni. Kan
khawsak a changkan tawh
avang leh hriselna kawnga
hma kan sawn nasat em
avangin natna dang tuar thin
mah ila, hetianga natna
inkaichhawn pup pup theih chi
erawh mihring hian kan vei
tam loh avangin invenna lam

(preventive measures) pawh
kan inhambuai a, keini ram
rethei zawk ai mahin ram
hausu leh ropui bera kan ngaih
USA, te pawh a che buai nasa
zawk an nih hi.

Hetih rual hian ranvulh
zingah erawh natna hrileng hi
a thlen zauh zauh avangin
hrileng tur laka invenna pawh
kawng tam taka lak zui niin, a
tihdan kawng pawh an bel
zawk zamah emaw a tih theih.
Covid-19 natnahrikemaw
anlaichin hnaifinfiah tur pawn
RT-PCR leh hmanraw dang,
viral natnahrik sawrbing a
zirchianna kawngah Veterinary
Institutions hian hmalakna tam
tak an nei reng a. Heng te hi
kan intangkaipui thiam tawnin,
kan thawkho chho zel a, a
lawmawm hle. Kan sawi bak
kawng tam taka hmalakna tur
a tam hle ang. Kan phak tawh
leh kan theih chin theuha rilru
leh taksa hrisel taka hma kan
sawn zel hi a mizoin a kristian
em em a ni.



KEIMAHNI

A. VETY OFFICER THAR 5 LAK BELH

MPSC kaltlangin MAH&VS ah Vety Officer atan mi 5(panga) lak thar anni a, a lawmawm tak zet ani. February 2020 chhungin an hna thar hi an zawm nghal a ni.

An hming leh an awmna/postna hmun chu a hnuaiyah tarlan ani e.

Sl. No.	Name	Present place of posting	New place of posting
1	Dr.Jonathan Lalremsanga VO		West Phaileng
2	Dr.M.S Dawngliana VO		Vaphai
3	Dr. PL Lalruatfela VO		Hnahlan
4	Dr. George Martin Lalruattluanga VO		Tlabung
5	Dr. Lalthansanga VO		Tuipang

B. PROMOTION

Sl. No.	Name	Present place of posting	New place of posting
1	Dr.H. Laltnmawia		Addl.Dt (AH&DD)
2	Dr. Thangkungi		J.D (P)

C. TRANSFER & POSTING : Department a Officer leh Staff an awmna hmun hetiang hian siksawi anni.

TRANSFER & POSTING (Officers)

Sl. No.	Name	Present place of posting	New Place of posting
1	Dr. Lalnginglova	CVO (CM&VD)	DVO, Aizawl
2	Dr. R.L Tanpuii		DVO, Mamit
3	Dr. Lalmakzuala		CVO (CM&VD)
4	Dr. K. Lalrinkimi	S. Vanlaiphai	Sangau
5	Dr. Vanlalbuanga	DVO, Lunglei	DD(Epi)

VETSMAG	RANVULH PUITU	Jan -March, 2020
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TRANSFER & POSTING (Staff)

Sl. No.	Name	Present place of posting	New place of posting
1	Lalrinnunga	DVO, Kolasib	Directorate AH&Vety

D. PENSION: Kumin January-March 2020 chungin Officers leh Staff mi engemaw zatin superannuation pension in min chhuahsan a. An hming leh nihna te hetiang hi anni e.

Sl. No.	Name	Designation	Place of posting	Date of Superannuation
1	Dr. KC Roduhawma	Addl.Dt (VS&PH)	Directorate AH&Vety	28.2.2020
2	Dr. Lalnunhlma	DD (E)	Directorate AH&Vety	28.2.2020

PENSION (Staff)

Sl. No.	Name	Designation	Place of posting	Date of Superannuation
1	Lalkhumi	UDC	DVO,Champhai	31.01.2020
2	VL. Muanpuii	Assistant	Directorate	28.02.2020
3	Lalchhandami	Assistant	Directorate	28.02.2020
4	Barsa Murmu	IV Grade	J.D (SZ)	31.01.2020
5	Lalthalura	IV Grade	Mamit	29.02.2020
6	Vanramthanga	IV Grade	Kolasib	29.02.2020
7	Lalmalsawma Colney	IV Grade	Selesih	31.03.2020
8	Dothuama	IV Grade	Champhai	29.02.2020
9	N. Chungliana	IV Grade	Lawngtlai	29.02.2020

Zawhna Huang

Q. Kan vawkpui kan han pawl tir hnu ah a hur nawn leh thin a, engnge a chhan ni ang?

Ans:- Vawkpui hur, a pa in a pawl tawh hnu a ,rawn hur nawn leh thin hi “Repeat breeding” kan ti a. Hei hi a chhan tam tak a awm thei a. Chung zing a , pawimawh zual te tarlang dawn ila:-

(i) Early Embryonic death:- An in pawl zawh atanga, a note insaim tan tirh lai a, a no thi ta mai hi early embryonic death chu a ni. In pawl atanga ni 14 chhung vel in a no insaim chho mek lai chu engemaw vangin a thi a, chu chu ala tet em avangin hmuh a har a, bawlhhlawh rualin a chhuak thin a, chumi hnuah vawk chu alo hur nawn leh thin a ni.

(ii) A nu leh pa chi intawn fuh loh vang pawhin a hur nan leh thei a, chu chu failure of fertilization kan ti a ni.

(iii) A pawltir hun aia hma emaw, a hun bawh pelh deuh tawh vang te pawh in an hur nawn leh thei a ni. Chuvangin, pawltir atanga darker 12 hnu a pawl nawn tir leh hi duhthusam chu a ni.

(He Zawhna huang hi Ran vulhtuten ran vulh chungchanga zawhna an neih te an zawhna tur a ni a, a hnuaiia hming leh number kan tarlanah hian zawhna kan neihthe tawi fel takin englai pawhin a zawh reng theih e)

Dr R.Lalmalsawmi Mob.No - 8415894620

Dr Zohlimpuia Mob.No - 7005148162

T.Zoramsiama Mob.No - 9436385780

Editor