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Editorial

Vawk note that nan Iron Injection  
*- Dr. C. Lalremruata  
Scientist (Animal Science)  
KVK Hnahthial*

Kan sa ei a Antibiotic awmin kan  
hriselna a nghawng theih dan

*Dr C. Lalawmpuia  
M.V.Sc  
Veterinary Public Health and  
Epidemiology*

Mizoram Natna hriat ngai  
loh awm chhan hi

*-Dr. Zohlimpuia  
Veterinary Officer  
M.V.Sc Microbiology*

Keimahni :

***Editorial :***

Mizote hi kan pi leh pu te atanga ran vulh uar hnam kan ni a, ran vulh hian kan hnam nun ah pawimawh na thuk tak a nei kan ti thei awm e. Hmanlai a an hman ang diak diak in hmang tawhlo mahila chhiatni/thatni, Sakhua leh hnam hun pawimawh ah ran nena ruai thehlo chuan Mizo nun ah akimlo em em ani, tin, chhungkua in chawhmeh atana kan duh ber chu Sa a ni tlangpui bawk, Sunday tuka Vawksa hmeh loh chuan kim meuhlo a hriatna pawh kan nei hial thin, kan duhsak zawngte duhsakna lantir nan Vawk/Ar kan in talh sak tlangpui thin bawk.

Ran vulh hian kan hnam nun ah hmun pawimawh tak a luah avangin ran vulh chu ei zawnnna tling leh hlawk alo ni ta zel a, kut hnathawk tute tan a remchang lehzual kan ti thei awm e, Sum a hrana khawl tur nei ve lo leh thlakipa hlawh la ve lo tan ran vulh te chu Saving bank ani hial thei awm e,

Sawrkar hmalakna avangin khawvel huap pawh a vawk tha ber ber chi te kan ramah lei mai theih tur alo awm ta hi a vanneihthlak hle bawk a ni. Kan ramin a mamawh avangin ranvulh tu pawh kanlo pung chho ta zel a kan ranvulh kan thar chhuah atanga hlawkna tam zawk kan neihna turin tunlai thiamna kan hmantangkai pawh a tul ta hle niin a lang.

**VAWK NOTE THAT NAN IRON INJECTION**

*Dr. C.Lalremruata  
Scientist (Animal Science)  
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Tunlaiah vawkte piantha leh hrisel pangai man chu Rs. 5000/- a ni tlat tawh mai! Vawkpui vulh chu ava hlawk dawn em te kan ti thin. Vawkte hrisel tak kan siam chhuah nan leh kan lo hlawk zual zel nan he thu hi han chhiar ve teh le. Kan vawkvulh te an hrilsel nan hian vitamins (A,D,B-complex etc.) leh minerals (Calcium, Phosphorus, Iron, Copper, Cobalt etc) te an mamawh em em a. Heng chakna te hi vawkchaw ah an awmloh emaw an tlemin kan ranvulh te an thang tha thei lova an hrisel loh phah hial thina, an nih tur ang an ni pha lo fo thin. Heng minerals te zinga pawimawh tak leh lar tak mai chu Iron (Fe) hi a ni.

Iron (Fe) hi mihring ah a pawimawh zia kan hriat theuh kha mawle. A bikin hmeichhe lam tan chuan hriat ngei ngei chi a ni. Nu naupai tan phei chuan ei ngei ngei tur a ni tih pawh kan hre vek awm e. Mihring mai bakah i ranvulh te tan hlei hlei hian he iron hi thil pawimawh tak zawng a ni! Iron hian kan thisenah nitina kan mamawh oxygen te chu keng kualin kan taksa peng hrang hrangah a sem darh thin a ni. Chumi azarah chuan kan taksa chhungril ber ti ila, kan timur (cell) te chu an lo nun phahin, hna an thawh theih phah a ni. Heng timur (cell) te hi an thanthat chuan kan taksa a lo hrisel phah thin a, Iron-te hi thisenah a tlem chuan taksa in oxygen a tlachhama, kan ranvulh te an dawldangin (anaemic), an thang tha lova (stunted growth), an taksa a

chak lo mai bakah natna hrileng an kai hma bik em em a ni (low immunity). Iron hi vawk thisen, 100 ml zelah 8 gm vela an tlakhniam palh hlauh chuan iron tlakchhamna (deficiency) a lo nghal thin a ni. Heng atang te hian iron pawimawh zia chu kan hre thei awm e.

### I. ENGVANGIN NGE IRON AN TLAKCHHAM NGAWT?

a) Vawkpui hnute tui ah hian vitamins leh minerals chi hrang tam tak a awma. Chung zingah chuan iron hi a tlem em em thung. Hei hi Pathian thilsiam ve dan reng a ni ! Chuvang tak chuan iron hi vawknote tan chuan tlakchham a awl bik em em a ni.

b) Mizo ten kan vawk in sak dan hi a hnuai thing emaw mau te kan hmang thina, kan vawkvulh te leh lei (soil) inchiahpiah lo an ni tlangpui.

Heng lei (soil) ah hian iron leh minerals dangte a awm ve bawka, mahse kan vawkvulh te nen an inchhiahpiah loh takah chuan iron tlakchham hi thil awm thei tak a lo ni. Sap ramahte chuan farm lian tak taka vawk pawh pawnna an tlat chhuah tir hum hum na hmun te an nei a, heng hi organic piggery farm te an ti thin. Mahse chaw tha tin reng leh damdawi tha vaccine, rulhut hlo te an petha thung, chung hmunah te chuan iron hi a hranin an pe ngai lo a ni. Tuna kan dinhmun ah erawh hi chuan kan la pha lo mai thei a. Iron injection pek mai kha a awlsam a ni.

- c) Kan vawkpui rai lai te hian chaw tha (Vitamins leh minerals) an mamawh ang an hmuh thin loh vang a ni.
- d) Vawknote tana chaw (Pre-starter/Starter) te an dawn phak loh vang te pawh a ni thei.
- e) Vawkpui hrisel lo leh

dawldang hian a note thlengin iron tlakchhamna hi a thlen thei.

chaklova, khaw vawt vanga thi an awm thei.

## **II. IRON TLAKCHHAM AVANGATHILAWM THEITE...**

a) Iron tlakchham vanga natna te hi ni 7-na vel atangin hmuh theihin an rawn lang chhuak thin a ni.

b) Vawknote chu an dawldangin, thinlian (jaundice) ang main an eng deuh pup theia, an chak lo em em a ni.

b) Thisenah iron a tlem chuan an taksa a natna hrik do tute an chak lo zualin, hrileng (Viral/Bacterial disease) te an kai hma bik em em a ni.

c) An hmulphurh a chhiain, an thang muang bik em em a ni.

d) Vawkte kawthaloo an tam phah fo.

e) Thawk lama harsatna nei an tam phah.

f) Khaw vawt tuar an

chaklova, khaw vawt vanga thi an awm thei.  
g) Vawkte chu man hran an nihin an chak lo bika, an thanlen zel na tur thlengin nghawng a nei thei a ni. Vawkpui chithlah tha tak an ni duh lo fo.

## **III. INVENTANTUR**

a) Iron tlachham ven nan hian vawkpui railai atang daih tawhin tan tur a ni a, vawkrai lai te iron leh mineralsdangte pek that tur.

b) Vawkpui hnute hmu te hi iron diak in hnawih tur a ni a, chu chu a no ten hnute an hnek pahin an lo ei mai dawn a ni.

c) Iron injection pek mai hi tunlai kan mizo vawkvulh dan enin a awlsamin a hlawhtling phiana, chu ber chu kan thupui ber pawh a ni.

d) Iron injection pek dan tur:

" A dose zat : 100 mg,

vawkte pakhat zel tan,vawk  
khat chiauah

" A chiau na lai : A  
tihrawlah (A khel emaw a  
ngawngah)

" Hriau len zawng : 21  
gauge needle (5/8 inches)

" A chiu hun : Vawi 1-na,  
a pian atanga ni 4 naah chiu tur.

Vawi 2-na, a pian  
atanga ni 14 naah chiu tur.

" Damdawi hming :  
Imferon, Ferritas

Min zawh fo thin  
inhnialna awm thei chu ni 3  
naah nge ni 4 naah jection tur,  
ni 12 naah nge ni 14 na zawk  
te kan ti thin. Farm hrang  
hrangah vawkvulh dan style  
hrang hrang a awm ang bawk  
hian tih dan hrang hrang hi thil

awm ve thei a ni. Adik ve ve a,  
vawkin an mamawh ang an  
hmuh kha a pawimawha, kar  
thuma upa an tlin hma chuan  
iron an mamawh tur ang an  
hmuh vek kha a pawimawh hle  
a ni. Chuvangin a ni ah chuan  
buailoh tur ! Tin iron injection  
laiin a luak palh theia, thil  
pawi a nilova, ngaihthatloh  
nan hman loh tur a ni. Heng  
kan sawi bakah hian kan enkawl  
dan hi a pawimawh em em a,  
kan thiam a ngaia, chaw tha  
peka, a hun taka damdawi dose  
dikthlap mai kan peka,  
harsatna kan nei pawha  
mithiam te kan rawn zel chuan  
kan vawkvulh kan hlawhtlin  
lohma tur a awm lo a ni.  
Vawkvulh tute taima takin  
theihtawp i chhuah zel ang u.

## KAN SAEIAANTIBOTIC AWMIN KAN HRISELNAA NGHAWNG THEIH DAN

*Dr C. Lalawmpuia*

*M.V.Sc*

*Veterinary Public Health and Epidemiology*

A hmasa berin antibiotic awmzia han sawifiah ila. Antibiotic chu natna hrik bacteria avangin kan taksa ah harsatna emaw natna emaw a lo awmin a lo thah loh pawhin chung natna hrik kan taksaa lo in tai darh tur chu a lo veng thin. Antibiotic hi Mizo mi nawlpui chuan kan hre viau tawhin a hriat a, thil thar lutuk pawh niin a lang lo. Kan damloh in Doctor ten Antibiotic min chawh a, ni 5 atanga ni 7 vel kan ei a, kan natna te chu a lo dam ta thin a. Hetiang ang bawk hian ransa te, sava te, ramsa te pawh hi an damlohin a hmaa kan sawi natna hrik te chu that emaw, an in tai darh tur veng turin antibiotic te hi Veterinary Doctor ten an pe thin a ni. Kan sa ei thin te-a damdawi kan pek Antibiotic in engtin tak nge kan taksa-a harsatna a thlen dan chungchang kan sawi dawn ani. Sa mai ni lo, artui leh bawnghnute te pawh kan tarlang tel dawn a ni.

Antibiotic hi chi hrang hrang a awm a, natna hrik, bacte-

ria ho ah pawh hian thawh dan hrang hrang an nei a. Tun tumah hi chuan chung an thawh dan te chu sawi lan a rem lo ang a. Amaherawhchu, a tlanglawn kan hman uar deuh deuh han tarlang ila. Chungte chu ??lactams (penicillin leh ampicillin te), tetracyclines (chlortetracycline leh oxytetracycline te), sulfonamides (sulfadiazine, sulfamethoxazole, sulfadimidine, sulfadimethoxine te), macrolides (erythromycin, spiramycin te), aminoglycosides (gentamycin, neomycin, streptomycin te), quinolones (enrofloxacin, ciprofloxacin te),

chloramphenicol, colistin, novobiocin te hi an ni. Global Trends in Antibiotic Consumption in an report ah chuan tun kum sawm chhung khan a bikin BRICS an tih ram panga, Brazil, Russia, India, China leh South Africa ah chuan 100 zela 36 in antibiotic kan hman zat hi a pung an ti. Kan ram, India phei chu khawvel a antibiotic hmang hnem ber pawl kan ni a, tun kum sawm kal ta khan a hma aia kan hman zat 100 zelah 62 in a pung an ti. The Global Antibiotic Resistance Partnership (GARP) ram panga inthlunzawm; India, Kenya, South Africa leh Vietnam te chuan he antibiotic avanga mihringa harsatna lo thleng thin tih zia awm nan pawl an din hial ani.

Tun tumah hian arsa te, vawksa te, bawngsa te, kelsa te, artui leh bawngnute kan ei a antibiotic lo awmin mihring taksa a nghawng dan kan thlurbing deuh bik dawn a ni.

India hi artui thar tam lamah khawvelah panga na kan ni

a, ar vulh tam lamah sawm leh pasarihna kan ni thung a. Heng te avang hianantibiotic kan hman zat a sang lo thei lo a. Ar natna hrang hrang ah hian hman thin ani a, chung natna tlangpui te chu - bacterial enteritis, fowl cholera, chronic respiratory disease, infectious sinusitis, infectious coryza, pullorum disease, fowl typhoid leh coccidiosis te an ni. Mizo te chuan Ar pul hri tiin kan hre tlangpui a. Kan ar vulh te pawh hi natna hrik chi khat virus, a hmaa kan sawi, bacteria nilo vang te pawh hian tam tak an thih phah thin. He virus natna hrik hi antibiotic hi chuan that thei lo mahse viral natna an vei atanga natna dang an vei lohna turin an pe tho thin. Hei mai nilo hian Ar than that nan pawh hian antibiotic hian tui in turah emaw an chaw ei turah an telh thin. Tun thlengin scientist ho zingah pawh an damloh vang pawh ni si lo a, an than that theihna tur ringawt a antibiotic Ar hnena pek a ni thin hi inhnialna tam tak a awm a. Ar an

than that chuan hrалh tlak an ni hma a, an chaw ei tur tam tham tak kan lo hlep thei thin a. Amaherawhchu, kan sawi tum ber antibiotic hman anih chuan an sa ah te, artui ah te an lo la awm a, hengte hi mihringin kan lo ei hian nasa takin harsatna a lo thleng thin. Research pakhat phei chuan khawvela Ar 100 zela 80 vel hian an dam chhung hian antibiotic an dawng ngei ngei an ti. Arsa leh artuia Antibiotic a lo awm a kan ei hian thak vak te, kal lam that lohna te, thin that lohna te, nau chhiatna hial te pawh a thleng thei a. Heng bakah hian natna dang tam tak pawh a thlen thei ani. Heng natna a thlen theih dan tak hi kan sawi chho zel dawn ani.

World Health Organization (WHO) leh Food & Agriculture Organization(FAO) te chuan sa te, artui te, bawnghnute ah teantibiotic awm zattur Maximum Residue Limit (MRL) leh nitin a sa leh artui a Antibiotic a lo awm pawh-a mihring tana hlauhawm

loh chin Acceptable Daily Intake an siam a. Zawrh chhuah tur reng reng chu WHO leh FAO in-a an siam standard hi an zawm ngei ngei tur ani. Ram tam tak chuan anmahni ei leh bar te, an hnam culture azir tein standard an in siam a, amaherawhchu India ah hi chuan kan la nei ve chiah lo a, WHO leh FAO standard hi kan la hmang hrih a. Food Safety and Standards Authority of India (FSSAI) chuan India tan pawh hian standard (MRL) thar hi neih thuai tumin hma an la mek ani. A chhan chu ram changkang zawk (developed countries) nen chuan kan hriselna te, kan taksa in natna a do theih dan te leh kan chaw ei te a in an loh em avangin tuna kan standard zawm lai hi chu a dik tawk lo deuh niin an ngai a. Engpawhnise, a chunga harsatna hrang hrang lo thleng thinkan sawi pumpelh nan heng dan te hi siam a ni.

A hma a arsa leh artui kan sawi ang bawk khan Mizo ten kan

ei tianglawn deuh vawksa te, bawngsa te leh kel sa ah te pawh antibiotic a lo awm hian harsatna tam tak min thlen thei a. Vawk pul hri, Classical Swine Fever (CSF) te, Porcine Reproductive and Respiratory Syndrome (PRRS) te leh Bawng ke leh ka natna, Foot and Mouth Disease (FMD) ah te pawh hian nasa takin antibiotic hman a ni. Mi tam takin Penicillin allergy kan tih Penicillin ngaih lo a thak vak thin te hi an awm a, Doctor ten an hriat chhuah hnu chuan he damdawi hi an damloh pawhin an chawh ngai tawh thin lo. Amaherawhchu, vawksa ah te, bawngsa ah te, arsa ah te, bawngnute ah te Penicillin chu a lo awm chuan damdawi an ei a an awm ang chiah khan an thak ta vak thin a, ka sa ei ka ngeihlo kan tih te hi hemi avang hi a lo ni reng thei a ni. Chloramphenicol antibiotic kan tih phei hi chuan thling natna te, Grey Baby

Syndrome an tih naute natna te hi an thlen thin. Antibiotic thenkhat phei hi chuan cancer hial te a thlen thei an ti. Oxytetracycline te hi rei tak kan taksa chhungah kan lak luh chuan leukocytosis , thrombocytopenia (thisen lam natna te), thin leh lung lam that lohna te, ha leh ruh lam that lohna thlengin a thlen thei a ni. Naupang kum 7 hnuai lam tan phei chuan ha en vekna tea siam thei. Hei mai bakah hian kan taksa tana thalo tam tak Antibiotic hman lutuk hian a thlen thei a, kan sawi vek seng lo ang.

Natna te leh damlohma te tidam thei tu damdawi ani si a, engatinge mihring hriselna a tihchhiattheih le? kan ti maihei. Heng Antibiotic te hian natna hrik te chu a that a, mihring tan chuan a that a, mihring mai, amaherawhchu thil a awm lohna tura a lo awmin harsatna a thlen thei ang chiah hian kan mamawh

lem loh kan thil ei (sa te, artui te leh bawngnute te) atanga antibiotic taksaa a lo inchhek khawl tam hian a chunga kan sawi tak te ang harsatna a lo thleng thei thin. Khawvelin a buaipui ber pakhat Antibiotic/ Antimicrobial resistance an tih Antibiotic dose dik tak kan taksa-a a luh loh avanga natna hrik thah theihna Antibiotic in a hloh hi han sawi zau teh ang. Tuna kan Antibiotic neih ho in a ngamloh natna hrik hi an lo chhuak zel a. New Delhi metallo ?-lactamase 1 (NDM-1), Superbug an tih mai kha kum 2009 khan India ramah hmuh chhuah a ni a. Antibiotic engmah hian chu natna hrik chu a that in a ti thuanawp theilo tluk ani. Hetiang ang deuh chiah hian Extended Spectrum ? lactamases (ESBL) siam thei bacteria te chu khawvelin a buaipui leh luih luih tawh a ni. ESBL bacteria kan tih te pawh hian antibiotic kan neih ho te hi an ngam deuh vek a, an thah an theihloh tluk ani. Methicillin Drug Resistant Staphylococcus Aureus (MRSA) te, Multi Drug Resistant Tuberculosis (MDR-TB) kan tih te pawh hi Mizoram ah ngei pawh kan buaipui nasa tawh hle anih hi. TB damdawi a hmaa TB vei ten an ngeih em em pawh kha tunah chuan TB natna hrik chi thar a hmaa TB damdawiin-a a thah theih loh an hmu chhuak leh tawh a ni. Heng kan sawi tak te hian natna min lo thlen ta sela, antibiotic hian min tidam thei mai mai tawh lo ani. Tunah hian scientist ho te chuan natna hrik chhuak thar that thei antibiotic siam chhuah tumin an hmanhlel hle ani. Heng kan sawi zawng zawng te hi a thlentu pakhat zinga mi chu kan sa ei ah khan tlem tlemin kan hriat lohin antibiotic kan taksaah kan la lut reng a, a hmaa kan sawi tak antibiotic resistance kha a lo thleng ta thin ani. Doctor ten

Antibiotic min chawh, a course/ dose kan ei zawh loh pawh hian heng ang hi a thleng tho tih hriat tel a tha. Antibiotic/ Antimicrobial resistance kan tih hi a chhan bulpui ber pakhat chu sa, artui leh bawngahnute kan ei a Antibiotic tlem tlem lo awm thin vang hian a ni.

Kan sa ei te leh thil dang atanga Antibiotic lo awmin mihring hriselna a tih chhiat dan kan sawi a, engtinnge kan in ven ang? Mi tam zawk hian sa, artui leh bawngahnute a antibiotic lo awm in kan hriselna a nghawng thei tih hi an hre miah lo a ni. Chuvang chuan Mizo te pawh hian hemi lama inzirtir na kan neih hi a tul khawp mai. Vety Doctor te kan pawimawh hle mai. Nasa takin kan Vety Doctor ten hma an la a, kan hriat reng tur a pawimawh em em chu Antibiotic vawkah te, ar ah te, bawng-ah te kan pek hian

an sa ah te, artui ah te leh bawngahnute ah te hian a awm theih hun chhung, withdrawal periodkan tih hi antibiotic hrang hrang te hian an nei vek a. Entirnan, Tetracycline hi bawng a kan pek chuan darkar 48 atanga darkar 72 chhung vel a hnute tuiah a awm thei a. Chumi chhung chuan bawngahnute chu ei hrih loh tur a ni. Hetiang ang deuh hian sa leh artui ah pawh vawk emaw, bawng emaw, ar emaw Antibiotic pek an nih chuan an sa leh artui a Antibiotic awm theih chhung, withdrawal periodAntibiotic hrang hrang hian an nei vek a, chumi hun chhung chuan ran te chu talh hrih lo mai tur ani. A hmaa kan tarlan tawh vawk pul hri ah te, bawng ke leh ka na ah te antibiotic hi kan hmang nasa si a, fimkhur a tul hle a ni. Hemi chungchang hi kan sawi vek hman si lo a, kan khua ah emaw, kan district ah emaw

Veterinary Officer te kan zawt mai dawn nia.

Zawhna awm thei pakhat chu heng arsa te, bawngsa te, kelsa te, artui te leh bawnghnute te hi chhum hmin-in emaw kang hmin ta ila, Antibiotic lo awm chu a that thei angem ?? He zawhna hi heti zawng hian chhan in tum teh ang. Veterinary Public Health and Epidemiology Department a research scholars te hian hemi chungchang ah hian research kan ti nual tawh a. Artui te, arsa te, bawnghnute te kan han chhum emaw kan han kan hmin hian za-ah sawmhnih atanga sawmnga thleng antibiotic lo awm chu a that thei thin a ni. Antibiotic hrang hrangah a percentage a inang lo thluah a. Za ah za chu chhum emaw kan emaw hian Antibiotic hiathat thei lo tih hmuhchhuah a ni. Chu mai bakah risk assessment kan ti a, sa emaw, artui

emaw, bawnghnute ah te emaw Antibiotic chu lo awm ta sela, a awm zat chu mihring tan a hlauhawm em tih zawnchhuahna a ni a. Engemaw zat chu a awm thin tih hmuhchhuah a ni a, amaherawhchu, tun thleng hi chuan India ram a research an tihna ho ah hi chuan mihring tam dan azir te, sa emaw, artui emaw, bawnghnute emaw nitina an ei zat atanga chhutin Antibiotic chu thenkhatah lo awm mah sela, mihring tan a hlauhawm pha lotlangpui tih report a ni. Mizoramah hian hetiang lama research ti hi an la awm lo in ka hria a. Sa, bawnghnute leh artui ah te hian Antibiotic engzat chiah nge kan lo ei tel thin ang le? tih hi zawhna lian tak a ni ta. India hnam pa Mahatma Gandhi-a chuan, "Hnam ropui leh changkang tehna pakhat chu ran an enkawl danah hian a ni" a ti.

**MIZORAMA NATNA HRIATNGAI LOH**  
**AWMCHHAN HI**  
**- Dr ZOHLIMPUIA**  
**Veterinary Officer.**  
**M.V.Sc Microbiology**

Kum 2017 a ral dawn meuh chuan sik leh sa inthlak danglam dan khawvel hmun hran hranah a hmuh theih a, ramngaw chereu zel avangte, industrial pollution te leh chhan tam tak vang te pawh ani thei awm e. Hei hian scientist-te chauh lu a ti hai lova, ram hruiatu tam takte ngaih pawimawh leh vawi duailo UNO general meetingah pawi sawi ho a lo ni tawh thin ani.

WHO in a chhut danah chuan kum zabi 21 tawp lamah hian khawlum zawng hi degree 1 atanga degree 4 laia lum belh ni turin a chhut a. Kan khawvelin lum lam a pan zel vang hian khawvel hmar lama vur awmkhawm a lo tuiral zel a, chuvang chuan tuifinriat chim chin lo sang telhin thliarkar tam tak a chim bo mek zel a; thlipui hlauhawm tak tak a lo thawk tam tial tial a, tun kum 20 kalta chhung lek hian cyclone chi hran hran 1200 chuang laiin khawvel hmun hrang hrang a nuai vel hman a ni. Tin, heng thlipui mai bakah hian ramngaw chereu zel vangin kan boruak hip a thianghlim lo tial tial a, tin, boruak chhia (air pollution) vangin khawvel hmun hran hranah kumtin mi nuaihriat (8 lakhs) laiin nunna an chanin boruak chhia vanga lirthei a accident tawk hi mi nuaihsawm (10) vel niin WHO

(2003) chuan a tarlang in a tarlan dan.

Khawvel lumzel (Global warming) in hrileng, hri thar leng (emerging) leh hun kaltawha natna leng nimahse hun eng emaw chen hriat loha awm hnua rawn langchhuak (re-emerging) ah te nghawng a neihdan entirna nen han sawizau dawn ila. Kum kalta 2016 July khan Siberia ramah Sazuk sanghnh tehmeuh mai an thi phuk phuk mai a, achhan zirchiana hriat anih meuh chuan natna hming lar tak Anthrax alo ni a. Anthrax hi mihring leh ran natna in kaichhawn theih (zoonotic disease) niin khawvel in a buaipui em em leh terrorist hovin an kaw lang tih an hlauh em em ani. He natna hi bioterrorism atan hman theihin lehkathawn emawah thleh tel mai theih, hawn zawnga boruak a leng mai thei ani. Engvanga hun rei tak natna in up bo, kum 1941 hnulama leng tawh lova hriat hi a hnu kum 75 hnu ah alo lan leh tak avang hian zawhna tam tak a awm thei awm e. A chhan ni ber a lang ta chu, anthrax natna hrik kum tam tak vur hnuaia lo in khuhbo kha, vur a lo tui hian he natna hrik hi rawn hailangin heng ramsate hian anthrax natna an lo vei ta ani. Tichuan, hetianga khawvel lum zelin natna muhil a kaitho thei thin dawn anih chuan Zawng hri (Small pox) kum zabi 20 lai khan mihring maktaduiah 500 zet in nunna an channa leh kum 1977 a umbo (eradicate) hi engtikah emaw a rawn kir leh maithei law'ng maw tithe hi zawhna awm thei tak ani. Tin, hemi mai bakah hripui (Bubonic plague) kum zabi 20 laia mihring maktaduai 200 suattu, sazu hrik atanga in kaidarh te hi? Heng zawng zawng ngaihtuah chang hi chuan, Bible in hrileng tur thu

a sawi kha a pawmawm telh telh mai thin ani.

Khawvel kan thlir zau deuh chuan kan hriat zen zen loh natna hrang hrangin min nuai vel a, heng natna hrik te hi insiam danglam (mutate) in hlauhawm zawk in an rawn in siam mek zel bawk a, heng Bird flu, Swine flu, Ebola, Zika virus vanga natna te avangin hmun tam takah chuan heng natnate hian mihring nunna sang tam tak an suat a. Hetih lai hian mithiam tam tak chuan heng natna leng (epidemic) hi kan cho chhuah ve reng ani an ti a, chuvang chuan mipuite pawh heti lam hawizawng hian awareness kan neih a pawimawh telh telh dawn ni in a lang. Tun kum 30 kalta chhung hian WHO chuan natna thar, kan la hriat ngailoh chi hrang sawmthum lai mai a hmuchhuak a, heng te hi kan khawvel boruak kan inthlak nasat lutuk vanga lo awm ani

an ti. Hei hi a dik em em a alan nachhan chu, tui vawh lam 14 degree anih hian natna hrik chi hrang hrang, malaria chenin in thlahpun an harsat phah a, nimahsela, degree khat lek, 15 degree ah lo sang ta se, heng natna hrik tuia in thlahpung chi ang hian nasa takin an pun phah thei ani. Mithiamte chuan tuipui (ocean) lum zelna hi degree khat a tling tep tawh an ti a, heti a nih chuan natna muhil a lo awm anih ngai chuan engzat tak nge rawn thangharh ang tih zawhna hian rilru a ti nuam lo hle mai. Chutihrual chuan, kan ram lui leh dilte hi engtiang takin nge an lo lumbelh ve hriat a chakawm hle mai.

IPCC (International Governmental Panel on Climate Change) chuan India ram hi kumtin degree 2 atanga degree 5 ang zela lumin, ruah tui poh za a sawmhnh (20%) laia tlak tam belhin a chhihchiah a.

Ruahtui tlak tamna hmun hrang hrang zingah Mizoram pawh kan telh bawk a ni. Hmanlai atanga lo kan neihdan kan thlak thei si lova, ram ngaw kan thiatin kum tin ramngaw kan thiatin kan hal a. Heng zawng zawng vangin ruahrtui tlak dan a mumal lova, tuilian kan tuar ngun telh telh a, sik leh sain mumal a nei lo tial tial a, tin, hmun thenkhat ah phei chuan thlasik a awm mang lo emaw tih tur hialin boruak a danglam a, kan thlasik te lahin rei a daih lo thin bawk a.

Mizoram hmun hrang hrang a rannung seh natna(scrub typhus) kum 2008 vel atang khan kan hmeliat tan a. He natna hi indopui-II lai, kum 1945 khan Assam leh West Bengal-ah hmuhchhuah ani a. Tichuan, kum 60 chuang hunah hmuhchhuah leh ani a, zawhna tam tak a awm thei awm e.

Kum 60 chuang kha khawiah nge he natna hi a lo bikbo? Ramngaw chereu zel vang hian a thehdarhtu rannung (Leptotrombidium) te awmna kan va tawn darh nge heng rannunge hian global warming avanga an mizia lo thlak danglam in mihring min bei ta chiam nge, tunhma pawhin he natna hi a lo awm fo tawh a, kan hrechhuak lo mai mai zawk tih zawhna a awm thei ang. Chutiang bawkin Dengue natna kan lo hmeliat tak dan te pawh hi chhui tham a awm thei ang. Dengue hi thosi chikhat (Aedes) seh atanga kaidarh ani a, tuitling lumzawng degree 16 emaw chu aia lum emaw hi thosi inthlahpun nan a ngai a ni. Chuvang chuan boruak lum zelah tuitling pawh a lum chho ve zel avangin, natna tunhma lama hriat ngai loh dengue hi a rawn puang ani thei mai thei ani. Tin, he thosi tho hian

natna dang 'Chikungunya' leh 'Yellow fever' a pu darh bawk a. Chikungunya hi kan thenawm state Assamah a hluar hle a, a thehdarhtu those Mizoramah a awm tawh bawk si avang hian heng natnate pawh hi kan lo kawl reng tawh reng a, nimahsela, kan la hmuchhuak hrigh lo te ani lo ni lo maw, tihte zawhna awmthei tak ani. Tin, hemi bakah hian, mi 590 in Assam a an thih pui, thosi seh atang thova lo awm Japanese encephalitis (JE) pawh hi sawikai zel a chakawm. Kan thenawm ram Bangladesh ah kum 1992 tuihri hlauhawm chi (O139) hmuchhuah ani a, India hram hmun hrang hrangah hmuhchhuah ani ve leh a. Mizoram nen kan inrina border fencing engmah kan nei si lova, dan lova lo lut te hriselna kan hre tawh si lo nen, heng bakah hian ramrikan natna (transboundary disease) tam tak hi kan ram thenawm Bangladesh leh Burma te nen hian kan in kaidarh tawn vel thei ani. Mizorama tuihri pawh hi eng chi chiah hi nge, tih hriat a chakawm hle mai.

Kum tina boruak lum tial tial, ruahrti tla hnem tulh tulh mai leh tuilian hian enge a nghawng theih, tih te hi kan hriat a tul awm e. Ruahrti a lo tam a, tui a len hian rannung, sazu te chenin sa himna zawngin hmun hullamah an in sawi thin a. Sazu hian natna hrang hrang mihring leh kan ranvulh teah a thehdarh a, tichuan chung natna chu kan ranvulh atangte in kan kaichhawng ve leh thei ani. Leptosirosis, sazu in a thehdarh natna hi kan tui in atangte leh pem atanga kan kai tlangpui. Tin, listeriosis leh toxoplasmosis phei hi chu nauchhiat theihna anih avangin fimkhur a tul hle a, tin, TBE (tick born encephalitis)

saphihrik-in a put darh ani a, North East ah hian eng ang saphihrik nge kan kawl tih hi record a awm famkim lova, hriatloh natna hrang hrang pu darh thei tur pawh a lo la awm theih avangin fimkhur a ngai hle.

hetiang natna ang chiah hi Mizoram ah, mihring ah hmuhchhuah ani a, Mizoram khawthlang lamah phei chuan a leng NASA viau mai a. Ran leh mihringa a natna thlentu hi chhungkaw khat (Picorna viridae) an ni bawk ani.

Min venghimtu kan ramngaw kan thiah darh hian nasa takin min vaw let zel a, Mizoram ah Ui â hri (Rabies) vanga thi report a awm ngai loh laiin, kum 2016 khan Mamit district, Phaizau khuaah mihringin an thihpui a ani. Sik leh sa inhlak danglam leh ramngaw a biru thin natnate, thing leh mau kan vah chereu nasat avangin an awmna rawn tlakin minhring chenna min rawn luhchilhta ni in mithiamte chuan an ngai. Mizorama ran natna lar berte zing ami chu Bawng ke leh ka na hri (FMD) hi ani a. Tun kumhnih kalta atang khan

Mitin mai hian mawhpurna kan nei a, Dr Maria, WHO Director, Public Health in a sawi danin ' Mihring natna za a sawmhnihih hi chu kan chhenna boruak siamthat hian a pumpelh thei' a tih angin theihtawp kan chhuah tlana, ramngaw humhalh lamah tan kan lak thar a ngai takzet a. Tin, Mihring natna za a sawmruk tehmeuh mai hi ran atanga kaichhawn anih avangin, kan ran hriselna hi kan hriselna ani tih hre tel bawk ila, a lera thuai tum lovin, a bul thutah hriselna tan turin hma han la tlang dial dial teh ang u khai.

**KEIMAHNI..**

1. Training workshop for Officers of the Department of Animal Husbandry & Veterinary on preparation of project/ proposals to seek financial assistance under centrally sponsored schemes, training cum workshop chu State Veterinary Polyclinic Hospital Conference Hall ah 13th October, 2017 khan neih a ni a, Officers te an kal tha hle a, hlawk thlak hle in an hria.
2. Training on Artificial Insemination & Dairy Development under NPBB chu Polyclinic Conference Hall ah 12th October, 2017 ah neih a ni a. Dr. K. Rokhawla, Addl. Director chu Chairman a ni a, Dr. Saingura, Director chu Chief Guest a ni. Dr. C. Lalrintlaunga , Dy. Director(DD) leh Dr. Robert Raulthankhuma, VO(P) te chu resource person an ni. He hun ah hian Field a AI khawihtu Doctor te leh VFA te training pek an ni.
3. Launching programme of Deworming in Pigs under National Livestock Mission (NLM) Aizawl District chu 2nd November, 2017 khan Dr. Saingura sailo ho in hman a ni. Dr. K. Lalbiaknungi, VO Polyclinic Hospital chuan Technical Paper Presentation a nei bawk. He hun ah hian Aizawl District chhunga vawk pek tur rulhlut hlo sem chhuah a ni bawk.

**VETSMAG****RANVULH PUITU****Oct - Dec 2017****Transfer & Posting**

No	Name	Place of Posting	New Place of Posting
1	Dr. Lalhlimpuia	GM Thenzawl Farm	CVO, State Vety Polyclinic Hospital
2	Dr KVL Rochharzela	CVO Polyclinic	GM Thenzawl Farm
3	Dr Lahmangaiha	VO Thingsulthliah	VO Darlawn
4	Dr K Zothanpui	VO Darlawn	Manager PDF Thenzawl
5	Dr Amos Vanlalhrauaia	Manager PDF Thenzawl	VO Thingsulthliah
6	R.Lalbiaknungi, UDC	DVO,Aizawl	Directorate of AH & Vety
7	H.Lalngnakiana Driver	Directorate of AH & Vety	CVO Office,Chawngte
8	Ronghinga. JVO	AH & Vety Farm Thenzawl	DVO, Kolasib
9	H. Lalnunringi UDC	Directorate of AH & Vety	State Vety Polyclinic Hospital

**Promotion**

No	Name	Designation	Place of posting
1	S.R.Vanlalringa	J.V.E.O	Livestock Superintendent, DVO Lunglei attached to GM Thenzawl

**Obituary:**

Dr. C. Vanlalngheta, Dy. Director (Hospital) (3.1.1965 - 16.12.2017)

Dr. C. Vanlalngheta hi ni 3.1.1965 khan a pianga, ni 20.9.1989 ah Veterinary Assistant Surgeon in A.H & Vety. Department ah a lut. VAS hian Veterinary Dispensary, Khawzawl, Champhai leh Kolasib ah te awm tawh a ni. Ni 18.3.1997 ah Grade IV ah kaisangin Champhai, Tlabung leh Directorate ah te a awm bawk. Ni 26.4.2016 ah Grade III ah kaisang leh in DVO Mamit ah dah a ni a, he mi hnu hian Dy. Director (Hospital), Directorate of A.H & Vety. ah ni 27.3.2017 atanga a boral ni (16.12.2017) thlengin Veterinary Service ah hian a hun a hmang a ni.

A.H & Vety. Department chuan hun lo tak mai a min boral san hi kan uiin a kal san tak a chhungte kan tawrhpui tak zet a ni.