VETS DIARY

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INTRODUCTION

Many people may feel wonder for why animal health subject is grouped along with the Kundalini. But it's too natural and spontaneous for Premyogi vajra obtained his enlightenment as well as kundalini awakening, both under the primary influence of health/body science. It's a deep tantric secret once revealed by Tantra Lord God Shiva first of all. It's the body science philosophy. Shiva had wandered in the whole of the universe with great anger once upon a time lifting his dead wife Parvati on his shoulders, when she had submitted herself to yajana fire willfully on hearing the insult of her husband in the yajna organized by her father named as Daksha(external website/wikipedia). Wherever different organs of dead goddess fell down, those places became holy pilgrims. For example, where her eyes fell, that place became famous as Nainadevi (eye of goddess). So if that non dual place is as if eyes of goddess, then obviously the people inhabiting that place become proved itself as if non dual dehapurushas of the eye-organ automatically. So in brief, body of a living being is too pure and functionally non dual. Anyone considering that way gets a powerful non dual spiritual power to become liberated. Some religious extremists sacrifice their owned animals with that consideration subconsciously or unknowingly in the name of religion, so they get powerful non dual lift for the animal during death roll is a type of non dual body country as per SHAVID as already described and that's non dual dehapurushas are struggling at top level with non duality to save their Body country. Although it's a bad practice and against PETA or ethics, able to produce social violence too. Better alternative is its signatory form or non violent animal fights like jalaikattu or animal competitions like horse race. The happening in the above story that God Shiva cut throat of buck in that yajana and replaced with the decapitated head of king Daksha is also a signatory one. It actually means using happiness (depicted as head) of animals to grow one's own head through Kundalini awakening. Although few of these caries grave risks, so should be avoided. Best practice is of getting non duality through serving and treating the animals with constant focus on their non dual Body country and non dual dehapurushas. This practice of non dual SHAVID works best if accompanied with company or life style of the ancient Indian spiritual system. Premyogi vajra worked the same and obtained spiritual awakenings two times in a quickest way.

Premyogi vajra goes more technical as follows that may be boring to unrelated people but interesting to the related beings.

Vets diary

Post mortem—
Scapula-horse-acronium absent,dog-supraspinous fossa=infraspinous fossa.
Humerus—horse-medial and lateral tuberosety separated by a ridge.radius and ulna—ox-2 interossius space,horse-only proximal interossius space,dog-narrow interossius space along length.metacarpal—semicircolar in both horse and ox and distal extremity in horse like half of distal extremity in ox.os coxae—horse-single notch in acetabulum,dog-transparent floor of acetabulum.femur—horse-trochanter tertius ie. Extra present and trochanteric ridge do not join t. major and t.minor.dog-5 metacarpals,horse-1 digit,ox -2 digits,dog -5 digits.horse and ox-3rd phalynx is semilunar and an extensor process.dog—3rd phalynx is claw like.sesamoids—proximal at fetlock and distaql at coffein joint.phalynges of horse—equals combined phalynges of ox.horse—1st phalynx-volar surface has v- shape area,2nd phalynx-more wide than long.ox—vertebral formula-c7 t13l6s5cy18-20.horse-largest quantity of excreta and maximum npk.2,4-d-post emergent herbicide.insect control-aluminium phosphide tablets @ 2 tabs /tonn feed and methyle bromide solution @ 3-5 ml/tonn feed.rodents—zinc phosphide tablets in bread .spraying insecticides—melathione and dechlorovos.silage-moisture=55-75 % and temperature=30-38 degree celcius.superphosphate-ca hso4.winter or rabi crops—berseem,barley, shaftal, Lucerne, red clover, white clover and fescue. Kharif crops—maize , teosinte, sorghum , bazaar, cowpea, hybrid napier, valvet, guinea, setaria.
Hcn poisoning—sugercane tops, brassica, white clover, jowar-excitement , salivation, froathing,lacrymation, death in 1-2 hours;diagnosis-sodium picric acid test ie. Picric acid filter strip dipped in material and chcl3 –red colour of cn;therpy-intraruminal use of oxytetracycline and cocl2 , sodium thiosulphate i.v. control-drying, haying, inciling no3 poisoning—oat,bazra, barley,wheat, rye and maize; convulsions, gasping,blue conjuctiva,rapid and weak pulse,salivation,death in 12-14 hours; diagnosis-ruminal content on slide + sulfanitramide ie. 2 % in 1.5 n hcl,1-2 drops of naphthyl ethylene diamine dihydrochlorede ie 0.02 %-pink colour is positive.treatment-methylene blue standard doze @ 1-2 mg/kg and high doze @ 20 mg/kg.mimosine toxicity -- babool ,symps—nervous signs, goiter, infertility,low birth weight and infant mortility,death in 2-3 weeeks; post mortem of lambs-erosions on gums,ulcers on tongue and haemorrhages;diagnosis-dhp in urine positive;treatment-1 % feso4 in diet.oxalate in poisoning—setarea sphacelata,napier grass, paragrass,pregnant and lactating animals more susceptible;symptoms-rapid heart rate,pupil dilated,freqrent urination,urine of red colour; diagnosis-hypocalcemia in blood ; treatment-calcium borogluconate 25 %; control-feeding dicalcium phosphate.photosensitization—berseem,Lucerne,oat and lactana at lush green stage; symps-skin lesions on dorsum of body ,edematous swellings of ear lobes; diagnosis-lesions while sun grazing.later, typed in paze maker file vets diary. Started beyond this written text in ms –world.
Phosphate and urate in urine sediment in adult cow—pulv. Sod. Po4 @ 12 g p.o. x 7 days,hexamine @ 12 g p.o. x7 days after giving sod. Acid phosphate; history was-at place of urination,white colouration of floor, no temp. etc.acid fast staining—smear –steaming carbol fuchsin for 5 minutes-acid alcohol for decolourisation-methylene blue for 3 minutes.fortwin ie. Pentazocine lactate 30 mg/ml @ 0.8 mg/kg i/m or i/v.calmpose -10 mg/ml @ 0.5 mg/kg.culturing on sabroids agar—5-6 crosses made at the centre of petriplate with marker;with inoculation loop ,sample dipped in agar at centre of cross,sample again taken and repeated on 2nd cross and similarly on all crosses,keep outside i.e. room temperature for minimum of 7 days.staining-take 2 drops of lactophenol cotton blue on slide,take the material from growth present on cross with inoculation wire and put on stain,do not disturb much,put cover slip and see under 10 x,observe hyphae.pubic promentry(most anterior o lateral part/prominence of pelvic inlet) is more sharp in heifers on rectal palpation-to identify heifers from adult cows.sending histopathological

specimen—put in 10 % formaline ie. 10 ml of commercial 40 % formaldehyde plus 90 ml destilled water and allow to fix for 24 hours,change it again with 10 % formaline and send for h.p. to lab. Saline electuary—ie expectorant for large animals-nh4cl ie. Naushader 10 g+kno3 ie. Shora kalami 10 g+ glycerrhiza ie. Mullathi 20 g +black salt 20 g= 1 doze , give sid/bid.corticosteroids help in better penetration of drugs.xylazine—pulmonary edema in rumenants and horses ie.destruction of 10 % alveoli after each use.pregnencv diagnosis in sheep/ goat—presss abdomen from both sides,if both hands meet together then n.p.,if any object felt in between tnn pregnant.recurrent prolapse in cow—bunner s suture applied with bunner s needle ie. Like mochi needle, after smearing of prolapsed mass with obstetrical cream ie. Dettol etc.,daily asd of inserted guage bandage used as thread by pouring betadine on its one exposed end so it sucks along whole length by capillary action .removal of guage after 15-20 days,only 1-2 finger space left for urine drainage.metaclopramide ie. Perinorm –to treat anorexia,peptic ulcer etc.xylocaine jelly-anaesthetic ointment.ausentol 5 g sachet—2g/litre watr,ectoparacidal. Ausentol soap with coumaphos—apply liberally only on warm water wetted skin after 5 inutes,wash with clean water,it has been given with instructions.sulpher ointment—mix sulphur powder ie. Gandhak in sarson oil and apply it on fungus and mange affected areas daily until recovery,prevent licking; before its application,rub the affected area vigorously to remove broken /weak hair and to produce hypenemia.scabiezma—1 ml i/m or s/c in adult dog on alternate day as antifungal and miticidal .sarson oil is a weal antifungal agent.cold milk is fed in gastritis.inj. ranitidine @ 1 ml to 10 kg dog i/v.inj. perinorm @ 1 ml i/v per 10 kg body weight.inj. nrurobione @ 2 ml to pup.inj. metrogyl @ 1 ml per 10 kg body weight i/v.syrup gelucil @ 2 tsf bid in case of vomition and gastritis.1 g bromothymol in 160 ml of n/100 naoh –btb –reagent for mastitis test.candid – b cream –topical antifungal ie. Clotrimazole + dexona.medicar shampoo—antilice for dog and human.tablet mysoline—primidone 250 mg @ 250 mg/ 5 kg weight bid or sid daily for canine distemper and epileptic seizures.blood in milk during mastitis—fed commercial formaline @ 10 ml in 300 ml water to adult cow sid for 3 days.levamisole is best for lung worms.levamisole i/m is irritant so use s/c.distodin ie. Hexachlorophene –antitrematodal and anticestodal.notex shampoo—best ectoparacidal.corneal artery is parallal to base of ear near to base of ear.mastitis—massage with t.t. oil liniment and hot fomentation with mgso4 tid daily.to treat spasmodic colic—opium ie. Afeem. Inj. Sodium bicarbonate 10 ml ie. 7 % in market for i/v use. Inj. Calcium sandoz 10 ml ie. 10 % calcium gluconate for i/ v in markete. Wheat—very good source of vitamin e ie. 150 mg vit.e /100 g.bran and yeast—highest in vitamin b complex.strychnine for kuchala.albendazole –25 % efficacy for immature and 75 % for mature flukes @ 10 mg/kg; at @ 50 mg /kg-75 % efficacy for immature flukes.triclamar ie. Triclabendazole—efficacy for both mature and immature flukes.magnesium sulphate @ 500 g/200 kg body weight after 12 hours of deworming to expwll all worms . jugular pulsation and engorgement, pulmonary moist rales /oedema and chronic coughing—hypoproteinimia and/ or anaemia due to endoparasitism or cardiac defect ie. Traumatic reticulitis etc.mastilep-udder massage during mastitis.uromol brix—15 minutes licking in morning and 15 minutes in evening to prevent and treat hypoprotenimia.syrup bestozyme – to treat maldigestion dirrhoea.retention of placenta upto 2-3 days and signs of toxemia ie. Dirrhoea and fever –never manipulate the uterus , give oxytocin 50 i.u.crust of ear—good source of mite.post parturient milking tetany in mare= equivalent to milk fever in cow because both are due to ca – deficiency.eclempsia in bitch—mostly after whelping, hypoglycemia and hypocalcemia both are present.xylazine—respiratory arrest, so give inj. Coramine 4 ml (2+2) i/v to adult dog and antagozil @ 5 ml i/v and dns i/v.notex soap as ectoparaside to dog.after ruling out brucellosis in late abortion by tests and other infectious causes by blood analysis ,progesterone therapy is done as-one month before expected days of abortion from history, give 2 ml of duraprogen ie. 500 mg of progesterone ,then repeat this @ every 15 days till parturition-lab. Assistant.bloat in adult cow—60 ml t.t. oil +500 ml sarson oil as a drench or through teat canula.if trocar and canula is not available and no effect of needle puncture in very sewere case of bloat ,then puncture with knife and then rotate at right

angle to allow escape of gases and froth.uniform turbid discharge—endometritis.slight cloudy discharge initially but later on clear during sucking—normal.clear discharge but with no. of white dots ie. Plaques---endometritis.clear discharge with very few white plaques—near about normal.himalayan batisa—for ruminal impaction.washing of dog with blaze shampoo once in fortnight.simple indigestion in cow—powder nuxvomica 8 gm daily for 3 days.sodium salicylas 30 g daily to equine for lameness.animal dull and depressed—anaemia.within 2 days of calving—size of cervix enlarges very much as compared to earlier ,used for guessing date of parturition.vincrystin--@ 0.025 mg/kg in 1st week,0.037 in second and 0.050 in 3 rd week.ointment medirub—to relieve chronic inflammation in dogs – ayurvedic.in anaemia—high protein diet is indicated for synthesis of rbc- membrane.trembling without hypothermia in pup occurs due to rickets.ointment sofracort for ankyloblepheron.unizyme syrup to dog in indigestion.avoid cold water ,food etc. in pharyngitis.avoid rece during constipation . acetylarsan (increases circulation to tissues)—9.4 % solution in 2 ml ampoule for small animal and 23.6 % solution in 10 ml ampoule for large animal; @ 2 ml to small animal and 5-10 ml to large animals a.d. i/m.docking in dog with local ring block and sedation only.pink/black coloured worm in dog – faeces –mostly round worms.thuza-200—5-6 drops sid p.o. for 10 days to adult bovine against warts.urethral caliculi removed with incision in dog and urinary bladder flushed with furazone.circling, head pressing chewing and frothy salivation noticed in one year sheep female fed only with milk.to locate protozoal oocysts in faecal sample –sample of faeces after bulk expulsion is collected and mixed with lugoles iodine,the cyst takes yellowish tinge . injection dexamethasone 5 ml epidural to adult mare.neosporin-h ophthalmic ointment.nephthyle cellulose eye drops @ 4 drops bid topical application to dog.enlarged prostrate in dog—by per rectal examination –right lobe inlarged out of two with history of constand urination,castration adviced.gabex can be applied over betadine topically.traumatic conditions in farm—haemorrhage-limbs-torniquet ie. 1 cm diameter rubber tube is tied with a knot and pencil under it is twisted to apply sufficient pressure and then pencil etc. fixed in position on with another bandage.bruises—internal haemorrhage so swelling ,bath with cold water on first day then 2-3 times a day with warm water. Open wounds—wash with clean cold water or normal saline ,swanbbed dry with and covered with clean iodine socked guage.fractures—if small , align fractured fragments in position with bandage.teat injuries—a dry dressing of sulfanilamide powder or quick drying antiseptic.eye injuries—1-2 drops of clean castor oil (decreases friction) ; badly inflamed-blind folding with strip of cloth or keep in dark sheds.horn injuries—if core injured-bleeding from nostril;apply tourniquet in -8- fashion around both horns and remove after bleeding stops;injury washed with cold antiseptic solution and horn protected by a pad or bandage.poisoning—antidote in bracket-acids(nahco3),alkalies(vinegar,lemon juice),arsenic(moist ferric peroxide),bleaching powder(white of eggs),convulsions(chloral hydrate),carbolic acid(egg white),cu(egg white),hcn(amyl nitrite),iodine(starch gruel),pb-salts(Epsom salt ie. Mgso4),hg-salts(egg white),narcotics(brandy, caffeine),organophosphates(atropine so4 @ 0.5 mg/kg b.wt.),phosphorus(no oils/ fats, cuso4),strychnine(strong tea ie. Tannic acid),tobacco(tannic acid),zn- salts(milk,egg white),urea/nh3(10 % acetic acid intrarumenal injection).for rapid excretion of poison-give oily purgative except in phosphorus.calving—bottle fixation in prolapse—bottle fixed in vagina ,tie 4 strings to its neck ,top 2 strings taken around dock and lower 2 around udder and fastened to a string tied around body in front of udder;chloral hydras(30-50 g in ½ litre) given.burns—tannic acid jelly smeared on clean piece of old sheet and applied to burn and held in position by a bandage.first aid requirements—cotton wool, bandages, surgical guage,old cotton sheets,rubber tubing ie. For tourniquet,surgical scissors(curved and made of stainless steel),forceps,splints or split bamboos for fractures,clinical thermometers x 2-3,disinfectants(kmno4,acriflavin,dettol,sulphanilamide powder),tanic acid (powder for poisons ,jelly for burns),castor oil(eye drops),mustard oil for bloat,Epsom salts,cuso4,glaubers salt,smelling salt,treacle,oat meal,oil of turpentine for bloat;obstetrical roaps , chains and

hoocks;tincture of iodine,tincture benzoin co for wounds,cotton ropes,halters,trocar and canula,pocket knife.carcass of animal died with infectious diseases—drenched with kerocene and buried deep covered with quick lime first.paneer—milk at 100 degree celcius + 2 % citric acid at 70 degree celcius—added and stirred continuously till greenish whey separates out -- filtered through mucelin cloth and sediments tied tightly in the same cloth and this tied mass is kept between 2 plates , a heavy weight being placed at the top of upper plate, leave for ½ hour and cut into pieces.problem—how many parts by weight of 40 % cream and 3 % milk be mixed to make milk testing 5 % fat.sol—

	Fat %	needed	parts
Cream	40	5	2
Milk	3		35
Total			37

Mbr-test—

Make methylene blue solution – 1 mb thiocyanate tablet (available in labs)+ boiling distilled water 200 ml,complete the dissolution before cooling it,solution made fresh weekly.

10 ml milk +1 ml mb solution – keep in water bath for at 35 degree celcius—observe for the change in colour after each hour and after rotating between palms (never inverting),put in again each time; first observation after 30 minutes,subsequents at 1 hour interval.

Milk type	observation
Excellent	no decolourisation in 8 ho Urs
Good	decolourization in <8 hour S but not <6 hours
Fair	decolourization in <6 hou Rs but not <2 hours
Poor	decol. In <2 hours.

Note—if hot chamber is used ,heat the test tube upto 35 degree celcius in water bath then put in hot chamber.mastitis- slide test—5 drops milk + 1 drop naoh –mix with glass rod –no gelification-a) pin point particles is 1 +, scatch pen dot particles is 2 +;gelification—a)fine jelly with clumps is 3 +,solid jelly is 4 +.

Mastitis tests—principle-mastitis milk is alkaline.

Bromocresole and bromothymole are pink dyes ,changes to different shades of blue due to alkalinity in milk.bromocresole is more sensitive.preservation of milk for sampling—hgcl2,hcho-20 drops / litre,k2cr2o7-1/2 g/litre;therefore kept stored upto 15 days after colouring it for composite sampling ie. Milk of same animal collected for many days ;not less than 10 c.c. of milk collected in sterilized and stoppered glass tube in ice-case to lab. With history of sample and time of sampling; for bacteriological exa,mination, no preservative is added.note—ivermectin lowers immune system.a general tonic is recommecded alog with vincysticin so4.fasciola sp.—lymnea ie. Shankh snail.amphistome sp.—endoplanorbis ie. Zalebi snail.if smear of snail made—fasciola stage is seen.dipylidium caninum larvae can penetrate intact skin.echinococcus granulosis is infective only aftr ingestion.anticoagulant for blood transfusion –acd ie. Acid citrate dextrose.maximum cows have false heat during pregnancy.removing leech from nostrils—saturated solution of comman salt ie. Nacl is infused deep inside with a.i. plastic sheath and syringe;leech immediately falls down;or infusing spt. Chloroform (500 ml bottle available),spt. Chloroform is drench. Feed sample is sent to triture ie. Madras vety. College for estimation of aflatoxin,report comes after 1 month.mastrip ie. Mastitis testing strip—dabur India limited.berseem has oestrogen so do not fed in pregnancy but fed in anoestrus.copper sulphate is toxic to sheep and goat. Ki ie. Potassium iodide is mucolytic @ 1g for 20 kg calf a.d.levamisole hcl-30 % w/w -100 g in market--@ 1 g per 40 kg b.wt. podophyllum srops 5 drops to afult cow to

prevent straining in prolapse.oxytocin given only after correction of prolapse not before,to prevent reoccurrence.teat fistula is treated by suturing the teat canal and overlying tissues surgically.in abortion, sexual rest is advised after infusing lugoles iodine intrauterine on estrus.inj. oxytocin 15 ml i/v after reducing prolapse.post reduction smearing of prolapsed mass with lignocaine gelly p/v.phenyle ie. Cresole is used as 5 % solution for disinfection.all git-nematodes removed by levamisole @ 36-48 mg/kg in drinking water including ascarids.levamisole kills all worms in dog except whip worms @ 10 mg/kg tetramisole for 2 days ,retreatment for heavy burden.fenbendazole is best for strongyloides in ruminants.albendazole removes 25 % immature and 75% mature fasciola on single therapeutic doze.cow not conceiving –a.i. done on and advised to bring on 5th day for inj. Progesterone.sulphonamide i/v infusion is highly effective against haemorrhagic septiceimia.chicks are not fed for first 36-48 hours of hatching to prevent retension of yolk sac.soframycine applied on itching area in rabbit.calomel 1part+boric acid/ zinc oxide 1 part—powdered –put powder in affected eye bid till recovery; calomel sachet 10 g and boric acid sachet 10 g available in market.kmno4 sachet 20 g in market.kmno4 crystals +formaline—put in plate as 1 to 1 and rush immediately to be saved from fumes—keep room closed for 3 hours for action of fumes.inj. cyclophosphamide (100 mg) @ 10 mg i/v on every fourth day x 4 times inj. In mammary tumour in an adult dog.inj. vit. A in epithelial affections.liquid paraffin p.o. to dog for stiffness of hind quarter on walk.arsenical of 100 i.m. strengyh @ 5 ml/ 100 chicks against i.b.d. potassium iodide @ 1 g / 100 birds against marex disease. Croton ie. Homeopathic against infectious bursal disease.zycloz ie. Closental 30 ml and 500 ml packing by zydus pharma.black pepper + oxytetracycline—synergistic action. Dialdrin poisoning—depression ; other organochlorides – stimulation; therefore treatment accordingly.lignocaine and procaine antagonizes the antibacterial action of paba.desi therapuy for fasciola—50 g catechu + 2 litre water –drench it or 5 litre water +250 g khadia – drench it or 500 g wheat flour + 500 g sugar + 30 g salt + 5 litre water—drench it daily for few days. Antiascarids—kamela + hot water—drench it.conjuctivitis—water + one chutaki alum—wash eye;then few drops of ghee/ shahad/ glycerine instilled into eye; repeat it many times.xylazine and ketamine anaesthesia for removal of tartar in dog.ointment zodex for local application and rest for 15 days in lameness since 15 days.debridemnt and asd of a wound created by opening of abcess for few days and then suturing of freshened wound.caprine –suppurative gonitis of stifle joint—betadine ie. 0.5 ml diluted in 4 ml d.w. intraarticularly after squeezing out the pus.best haemostat – ethymsylate.massage with t.t. oil and linseed oil 1:1 in chronic inflammation.charmil/ ectosep cream in itching etc.retrobulbar + paterson + auriculopelpebral nerve blocks—for exterpitation of eye ball. Vincristin sulphate 0.6 mg i/v to dog for tumour.best counterirritant for chronic inflammation—subcut. Inj. Of terpentine oil combined with point firing .zinc oxide +sulphur powder + Vaseline – paste for dermatitis.terpentine oil + chloroform socked bandage put in abcess cavity due to actinomycosis.asd with mgso4 50 g +glycerine 90 ml +cuso4 10 g of avulged horn.what is hydrotherapy of wound. Extirpitation of eye ball of dog under xylazine and ketamibe anaesthesia.prepartum vaginal prolapse in bovine—inj. Proluton depot 500 mg,inj. Mifex 200 ml s/c,local smearing with lignocaine hcl gelly and soframycin jelly mixed daily.mineral mixture,increase the frequency of feed in less quantity each time.keep surrounding area clean near vulva and raise the hind quarter.investor herbal hair tonic 100 ml, rs. 70, prevents dandruff,stimulates hair growth,help to grow new hair,makes hair smooth and soft,keeps scalp cool.glycppyrolate is muscarinic inhibitor therefore used as preanaesthetic.for esr estimation, animal should be completely fasted.betadine + glycetrine ie. 50 + 50 for teat dipping.asd of dead space/ cavity like horn core with mixture of mgso4, cuso4 and glycerine for cauterization.never hold pregnant genitalia, only palpate it.induction of parturition—40 mg of dexamethasone sodium phosphate as a single doze. Vanerial granuloma in bitch—vincristin sulphate 0.025 mg/kg b.wt. by slow i/v infusion on first week,0.037 on 2nd week and 0.05 on 3rd week.vomition, red urine and anorexia and fever are correlated ie. Nephritis.oxytonin 5 i.u. i/m to bitch to be repeated for whelping and dexona 1 ml also.cracks and fissures on teat skin—zinc deficiency,so apply zno

ointment topically and zinc carbonate or zinc oxide orally @ 2 g daily for 1-2 weeks in adult bovine.silver sulphadiazine is one of the best topical preparation in case of burns.oxytocin used in bitch @ 5 i.u. during secondary uterine inertia.doze of oxytocin in large animals—50-100 i.u.enrocin and ciprocine – urinary antiseptics.xylazine and ketamine are safely used in pregnancy.in colic chloral hydrate is given(but animal should not be drinking and feeding since 24-36 hours earlier) @ 6-10 g /50 kg b. wt. as 1: 20 dilution in water.chloral hydrate 5-6.5 g/ 50 kg as 6-8 % soln. in water for basal narcosis.in buffalow ,if lacrymation after chloral hydras administration then stop giving it. 3 : 1 ratio of chloral hydrate and mgso4 , @ 5 g / 50 kg as 10 % solution which will produce general anaesthesia. Equithesin for equine—28 g chloral hydras + 14 g mgso4 +6.5 g pentobarbital sodium (4:2:1) in one litre water; its 650- 700 ml for 500 kg horse.ayurvedic powder for digestive improvement – ghodphaka.metronidazole infusion 100 ml (5 mg/ml) @ 5mg-10 mg/ kg in animals.with phenothiazine, never use epinephrine.in seizure patients,never use phenothiazines.siquil @ 0.1 mg/kg in cattle and 0.2- 0.4 mg/kg in horse.acepromazine @ 0.1 mg/kg in cattle.diazepam is used to counteract seizures @ 0.4 mg/ kg in bovines.parvovirus infection remains for 7-15 days so thereafter immunity develops ; so saving the dog from secondary bacterial infection and replenishing fluid loss during this time saves the life.in git affections, use both oral and systemic antibiotics; in gastritis,only use systemic therapy.premature induction of parturition—in cow-dexamethasone 40 mg i.m. and pgf 2 alfa 25 mg total single doze i.m.,we can try after 8 months.in sheep and goat, induction of parturition can be done only 5 days before expected parturition.pentazocine lactate (fortwin) 0.5-3 mg / kg i.v. or 0.5 – 6 mg / kg i.v. in equine and 2 mg / kg in dog i.m.tocolytic drugs--- duphaspasmin @ 25-30 mg in large animals ,uterine contractions lost for 3-4 hours. To prevent milk fever—avoid high calcium during dry period ,30 g ca /day is enough for 500 kg cow during late gestation ; fed low calcium –diets (< 20 g ca/ day) during last 2 weeks before parturition ie. 8 g ca x 14 days before expected date of parturition ; ded less phosphorus ie. < 80 g / day ; fed ammonium chloride @ 100 g / cow/ day for 21 days prior to parturition ; avoid overfattening ; a sharp increase in ca – intake at day of calving is very important ; 24 g ca/ day x 4 weeks before e.d.o.p. upto 2 weeks before e.d.o.p. during wiring of mandibular fracture, drill the bone only, never drill the root of tooth; dissect the outside muscle so that wire rests directly on the bone.previously vaccinated dog bitten by a rabied dog—arv at days 0,3,7,14,28,90.chronic pharyngitis—sodium iodide (3 g in 300 ml normal saline to dog),inhalation of tr.benzoin,drenching avoided ; for dog-ammonium chloride 1 g, amm. Carbonate 0.5 g ,camphor 200 mg ,extract belladonna 1 ml , syrup/ water 30 ml –mix and make 6 dozes ,@ one doze b.d. ;for large animals –amm. Chloride 15 g,pulv. Glycerrhiza 35 g, amm. Carbonate 5 g ,potassium iodide 10 g, treacle/ zaggary 300 g ;make ekectuary and devide in 6 dozes and give one doze b.d.calamine lotion—calamine-15 g, zinc oxide-5 g, bentonite-3 g, glycerine-5g/ 5ml, rose water/ d.w. suff. To make 100 ml ; indication-used in burns when there is scar ,astringent, dessicant, protective, antiseptic, antiinfllamatory,used in pruritis,urticaria also.magnesium sulphate—antiseptic ,analgesic and ripening.blood from kiney-whole blood red,lesions in urinary bladder / seminal vescicle-final urine red, lesions in urethra-initial urine red.diaphoretics—nitrites.calcium preparations help in blood clotting.urinary infection in large animals—hexamine-5-10 g,sodium acid phosphate or ammonium chloride – 25-30 g, treacle / gur –q.s. ; make haust , signa: 1 doze daily.metronidazole @ 5 mg / kg as i/v drip, it is a hepatotoxic drug.for cauterization / fibrosis for filling up of wound cavity ,asd with cuso4 (5 g) + mgso4 (25 g) + glycerine (45 g) ; these are wrapped in bandage and inserted in . hoof after asd if infected is bandaged daily.inj. lemasol @ 2.5 mg/kg b.wt. in case of warts. Marsupilization—after rupturing of internal abcess and its drainage ,suturing its edges with edges of skin to prevent contamination of connective tissue and for easy drainage and then asd first with tr. Iodine and then betadine till recovery.1 grain=65 mg.1 ounce=31 gram, 1 fluid ounce=28.8 ml, 1 pond = 454 g, 1 ml = 16.23 minim, 1 teaspoon=5 ml, 1 dessert spoon=8 ml, 1 table spoon= 15 ml, 1 drop= 0.06 ml(17 drops of dropper = 1 ml) , 1 wine glass= 60 ml, 1 peg=30 ml , 1 tea cup=120 ml.stomachic powder for dog—bismuth carbonate-8 gm, sodium bicarbonate-8 g,

magnesium carbonate-8 g, mucilage tragacanth-8 ml,water-120 ml ; mix and give @ 1-2 teaspoons b.d. to t.d. daily .
Stomachic powder for cattle—sodium bicarbonate and nacl= 150 g (in equal quantity) ,pulvarised nux vomica= 25 g, pulvarised gentian= 45 g ; powder it and mix and make 6 dozes; signa-one doze daily.stomachic for horse—tr. Nux vomica- 70 ml,dil. Hcl=30 ml , tr. Gentian=150 ml, purified water = 600 ml ; make 1 doze and give tid. Haematinic mixture for cattle—dried feso4=30 g, mgso4=300 g, pulv. Nux vomica=30 g, pulv. Gentian=150 g, pulv. Anise=80 g ;make 6 dozes and give one doze daily.diarrhoea mixture for dog—bismuth sulphate = 1.8 g, mgco3= 1.8 g, nahco3=1.8 g ; mix and pulverize ,devide into 3,signa-b.d.
Diarrhea mixture (foals and calves)—tr. Opium = 1 ml, premared chalk=8 g,tr. Catechu= 8 ml,pulv. Gum acacia= 24 g,aq. Cinnamoni suff. To produce 100 ml ; mix and prepare mixture ;@ 6-10 ml after every 3-4 hours.
Diarrhea mixture (puppies) – mgo-3 g, tr. Rheico-24 ml,mucilage acacia-10 ml ; aq. Mentha suff. To produce 100 ml; mix and make mixture; @ 8-10 ml b.d.diarrhoea mixture (cattle)—tr. Opium-50 ml,pulv. Chalk-100 gm,pulv.belgiri-100 g, mucilage tragacanth-125 ml,spt. Chloroform-50 ml, rice gruel suff. To produce 600 ml ; mix and drench; give one doze daily.expectorant syrup (dog)—ammonium carbonate-1.2 gm,tr.silica-8 ml, spt.chloroform-8 ml, syrup simplex suff. To produce ----ml ; mix and make mixture; @ 2 teaspoons every 4 hours.sedative cough(dog)—ammonium chloride-0.6 g, tr.opium camphor-2 ml, tincture ipecac-0.5 ml, ext. glycerrhiza-1 ml;aq. Chlor suff. To make 15 ml ; mix and make mixture; @ 2 spoons every 4 hours.saline electuary(cattle)—ki-6 g, nh4cl-8 g, pulv. Glycerrhiza-10 g, pulv.lini and treacle-q.s. ; mix and make electuary; doze one o.d.
Saline electuary for cattle—potassium chlorate-20 g, pulv. Glycerrhiza-45 g, pulv. Anise-20 g, mix and make powder; devide into 5 dozes; signa-one doze o.d.
Saline electuary (cattle)—potassium chlorate-20 g, pulv. Glycerrhiza-45 g, pulv. Anise-20 g, mix and make powder; devide into 5 dozes;signa-one doze o.d.gastric sedative powder of dog—pulv. Bismuth carbonate,pulv. Sodium bicarbonate and pulv. Mgco3-1.2 g each;mix and make mix.; devide into 6, dispense one after every 4 hours.antispasmodic and antizymotic for horse---olium terebrenth-40 ml, diluted liquid ammonium-25 ml, chloral hydrate-100 g, olium lini-500 ml; mix and drench; given immediately.antispasmodic and antizymotic for cattle---liquid formaldehyde-24 ml, tincture ginger-20 ml, water suff. To produce 200 ml;mix and make drench; give immediately.autogenous vaccine—10 % solution of wart tissue in nss- triturate-centrifuge/ filter it – 0.4 ml formaline in 100 ml supernatant -24 hours in refrigerator-filter ; dozing-2ml,3,4,5 and 6 ml on alternate days.mare and bitch—no barrier of uterus for systemic infection so death occurs due to post parturient toxaemia in retained placenta, dystochia etc;also same in goat.in cow and sheep ,there is barrier unlike these.oxytocin is effective until placenta is adhered with uterus.treatment with streptopenicillin in dog @ 40 mg/ kg i.m. for 14 days produce toxic effects.normal doze of streptomycin-11 mg/ kg.loose feces are found in toxemia.mebendazole 22 mg/ kg for 5 days and fenbendazole 50 mg/kg for 3 days have good efficacy for taenia and echinococcus granulosus of canines.antipyretic and diuretic for horse—mgso4-200 g, kno3-50 g, nh4cl-50 g ; mix and make powder and devide into 6 ,give twice daily.antipyratics and diuretics—dog—potasium acetate-10 g, diluted liquid ammonium-40 ml, purified water sufficient to produce 120 ml; mix and make mixture,2 tsf tid.mistura alba for dog—mgso4-27.4 g, mag. Carbonate levis-4.5 g, purified water suff.to produce 100 ml; give 10-20 ml tid.tripple dye—crystal violet-65 mg, brilliant green-65 mg, proflavin sulphate-30 mg, aqua-30 mg;mix and make pills.blue paint—crystal violet-120 mg, brilliant green-120 mg, alcohol 90 %-15 ml, aqua-30 ml,mix and make pi.physic bolus for horse—pulverised aloe-24 g, calomel-2 g, pulverized nux vomica-4 g, pulv. Ginger-8 g, pulverized lini and treacle-q.s.; one bolus daily in morning.cleansing draught for cow –extr.ergot liquid-8 ml,mgso4-300 g, quinine so4-8 g, pulv. Ginger-30 g, pulv.anise-40 g,treacle-q.s.,water-600 ml; mix and make drench.anthelmintic pill for dog—calomel-30 mg, santonin-30 mg, excipient-q.s.;mix and male pill.cataplasma kaoline—

heavy kaolin-527 g,boric acid-45 g, methyle salycelate-2 ml,oil menthe-0.5 ml, thymol-0.5 ml,glycerine-425 g.seitz powder for dog—no. 1ie. Blue—sodium potassium tartarate-7.5 g,sodium bicarbonate -2.5 g ; no. 2 ie. White—tartaric acid-2.5 g ; dissolve blue packet powder in cold water and then white powder packet is to be added when effeverscence are seen in the solution.

Ioden e ointment—iodine -4 g,potassium iodide-4 g, glycerine-12 g, yellow Vaseline-80 g ;if methyl salicylate is to be added then 2 ml is sufficient and Vaseline is decreased to 78 g then; used-rubefacient,soothing, counterirritant,analgesic.antisialics—potassium chloras, alcohol.emollients—calamine,petroleum jelly,glycerine.digestive adjuvents—dilute hcl,pepsin,lactobacillus.emetics—apomorphine,znso4,nacl.antiemetics—bismuth preparation,kaoline.carminatives/antispasmodics—asphotidae,ginger,t.t. oil.antacids—alumenium hydroxide,mag.tricilicate ie. Telcom powder,omeprazole. Simple purgatives—increases stools without gripping—mgso4,castrol.drastic purgatives—croton oil,bacl2.intestinal astringents—bismuth preparations,kaolin,catechu,kess dozes of opium.antizymotics—turpentine oil,formaline,oleum,antibiotics.indirect choleretics—saline purgatives,calomel.gastric sedatives—bismuth carbonate,chlorbutol.urinary sedatives—decreases irritation of urinary tubules.supari contains arecholine.in bitch, doze of oxytocin is 5 i.u.cephalexin @ 10 -25 mg /kg /8-12 hours p.o. for uti and multi drug resistance,pyoderma. Surfaz ear drops for fungal infection of external ear.tetmasol—post use,if history of falling hair.enrocin is effective against pseudomonas.syp. enthansin—amoxy + clavulinic acid –for pyoderma,bite wounds and staphylococcus infection.wart vaccine is very much effective against warts.post bite vaccination to dog if routinely vaccinated—at days 0,3,7 of arv.post bite vaccine. To dog not routinely vaccinated—days 0,3,7,14,30 and 90 of arv.amoxy to dog—uti,streptococcal,upper respiratory and skin.liniments—counter irritant.liniment of soap—soft soap-80 g, camphor-40 g, oil of lemon grass-15 ml,d.w.-170 ml,90 % alcohol suff. To make 1000 ml.liniment of turpentine/ white oil—soft soap-9 g,camphor-5 g, t.t. oil-65 ml,d.w. sufficient to make 100 ml.ammoniated liniment of camphor—camphor-12.5 g, oil of eucalyptus-5 ml,strong solution of ammonia-250 ml,alcolol 90 % suff. To produce 1000 ml.liniment of camphor—camphor-200 g, arachis oil-800 g. liniment of lime—lime water-50 ml,linseed oil-50 ml.lotions---- boric acid lotion –boric acid 2-3 % -3.5 g,d.w.(warm) suff.to make 100 ml.mercuro chrome lotion—mercurochrome-2g,d.w. suff. To make 100 ml ; used – to treat superficial wounds as antiseptic and fly and mosqueto repellent.white lotion—lead acetate- 5 g, znso4-4 g,d.w.suff.to make 100 ml; used-astringent,analgesic,soothing ie. Anodyne,inflammatory conditions.golden lotion—calcium hydroxide-2.5 g, sublimed sulphur powder-5 g,d.w. to make 1000 ml; used-mange and superficial skin infection.calamine lotion—calamine powder-15 g, zno-5 g, bentonite-3 g, glycerine-5 ml,d.w. suff. To make 100 ml,sodium citrate-0.5 g,liquid phenol-0.5 ml ;used-astringent,protective,dessicant,antiseptic,in inflammation,pruritis and urticaria, in burns for dressing when there is scar and cosmetic purposes.emulsions---- mistura olei ricini /mixture of castor—gum acacia-10 g,castor oil-40 ml,orange water-15 ml,cinnamon water suff. To produce 100 ml ; use-laxative,also to remove muconium ; doze-foals and calves-60-150 ml,dogs-20-60 ml,cats-10-30 ml.chloroform emulsion—chloroform-50 ml,tragacanth mucilage-50 ml,quillaia liquid extract-1 ml,water to make 1000 ml; used-p.o. as carminative.vety. code liver emulsion—code liver oil-500 ml,acacia in powder-125 g,tragacanth in powder-7 g, chloroform- 2 ml,water to make -1000 ml,used-tonic.pastes----bipp—bismuth subnitrate-25 g, iodoform-50 g,liquid paraffin-25 g.zipp—zinc oxide-25 g, iodoform-50 g,liquid paraffin-25 g.morrisons paste—magnesium sulphate-50 g,glycerine-50 g ; used-zipp and bipp—antiseptic pastes for filling the cavities; morrisons paste-ripening the wound,antiseptic,and analgesic.glycerines---- glycerine of tannic acid—in eczema as astringent and antiseptic.glycerine of alum—astringent.glycerine of belladonna-anodyne.mandles paint—iodene-0.125 g,ki-0.25 g,d.w.-0.25 ml,menthol-1-2 crystals,alcohol-0.4 ml,glycerine to make 10 ml; used in tonsillitis and pharyngitis.glycerine of boric acid—boric acid-31 g,glycerine suff. To make 100 ml,antiseptic.glycerine of borax—borax-

12 g, glycerine-88 g,as antiseptic in stomatitis.saline electuary for cattle (respiratory distress)—potassium iodide-6 g,ammonium chloride-8 g,pulv.glycerrhiza-10 g,pulv. Lini/excipient q.s. to make final volume,it ia one doze for adult cattle.aqua chloroformi/chloroform water—chloroform- 0.25 ml,d.w.-100 ml ;used-antiemetic,stomachic and carminative,make a drug more palatable so as a base for medicaments.lugoles iodine—iodene-5 g,ki/nai-10 g,d.w.-100 ml; used-in iodine deficiency,mordant in grams staining.systemic therapy with antibiotics and corticosteroids is needed against affection of posterior segment of eye which do not respond to local therapy.french chalk is best to wear gloves.phenylbutazone use is avoided in high blood pressure ,congestive heart failure and drug toxicities.recovery from parvovirus occurs in 7-15 days.pitocin/ syntocin—best oxytocin preparations.epidosine—to dilate cervix but effect is not recorded . single shot of oxytocin produces effect which lasts for 30 minutes only so repeat like wise.yohimibine antagonizes ketakmine.antagozil is 10 mg/ml of yohimibine cl.dicyclomine hcl abolishes visceral pain and is smooth muscle relaxant.sodium salicylate @ 15 g o.d. to adult cattle as anti-inflammatory.milk of magnesia @ 60 ml b.d. x 4 to equine in gastritis and also mgco3 15 g o.d. for 3 days.ammmonium chloride 0.4 % 1 litre p.o. in alkaline indigestion to cow.powder replanta 50 g daily p.o. o.d. for 5 days.teat laceration with teat canal intact—wash with condys lotion ,ointment boroline in morning and oint. Neosporin – h in evening;fix adhesive tape over lesion before milking each time and milk with full hand avoiding streaking.tympanic is seen with auroscope if ruptured.notex shampoo for bath as ectoparacidal.adenomune-7 has canine distemper,ich,parainfluenza,parvovirus,cav – 2 and leptospira; given at 8-12 weeks of age,booste at 12-16 weeks then annual repetition. Adenomune -7 and arv can be given simultaneously.a.t.s. @ 5000-14000 i.u. i/m ,immunity for 10 days if treated within 72 hours after inection,glaxo.magurone tablets—in toxic hepatopathy,have glucuronolactone and vit. B complex.inj. pentadog and inj. Raksharab can be given simultaneously.pulv. notex 100 g,dusting and then combing daily.shampoo blaze for bath mobthly, 100 ml.fever not respomding to no. of antibiotics—give one shot of berenil,fever will come down.fungal hyphae at 10 x of microscope—double walled ,branching, septate,broken hyphae.phenothiazines should never be given to seizure patients ie.epileptic , because these decrease seizure threshold ;so diazepam and phenobarbitone and primidone are indicated.complete bilateral blindness in dog—opthalmoscopy-hypervascularization of retinal vessels around optic disc-andre eye drops,vit. A and e were used.autohemotherapy in canine was done to eliminate warts.removal of growth and counter irritation—agno3 and kmno4.protinex—proteins,vitamins and minerals ie. Ca,p etc.,rs. 92 per 200 g.ectosep may hay cauterizing action so do not use on healing tissues.acepromazine and morphine are contraindicated in cat.drug orphan is cat.conjunctiva becomes cyanosed /bluish in uraemia.for flushing of anal gland—5 % betadine is beneficial not 2 % one and daily flushing is important.activated charcoal @ 5 g/kg body weight.praziplus for complete deworming of dog in single doze.urinary acidifiers—sodium chloride,ammonium chloride,sodium acid phosphate, vit. C ; indication-for increased excretion of basic drugs and to improve antibacteeial action of hexamine,penicillin, and tetracyclines; contraindications-salicylates ie. Nsaids,aminoglycosides,and sulphonamide.povidone iodine bolus-600 mg for intrauterine infusion,6 boluses at single time.biobloom bolus @ 2 b.d. to cow to nourish ruminal flora.subcut. calcium draws fluid and may result in oedematous swelling.placentrex 2 ml ampoule ie. Human placenta extract; for healing rs. 10 / ampoule for i/m use only as per vial at the site of affection.
Symoxyl calf bolus in naval ill, diarrhea,pneumonia and fuo , about in every affection.sumeg(75 g ,rs.20) has mgso4,urea,sulphacetamide, proflavin and glycerine base; for ripening of abcesses; direction-a thick layer is applied on the affected area,covered by a plastic film and dressed ; for furuncle,a swab soaked in sumeg is pushed inside the same for pelvic application on a soaked plug in form of a tampon is used in suppurating ulcers,dressings sh. Preferably be changed twice daily;not-antibiotics can be administered along with local application of sumeg with advantage;for external use only.anaphylaxis seen by me with own eyes in dog after 15 seconds of administration of ampiclox at normal doze ; signs-heat rate-40 – 60,sounds very feeble ,

respiration-13-14,comma , all senses lost,tongue relaxed and protruded out;treatment-inj. Atropine so4 @ 0.04 mg/kg (1/4 i/v and other i/m); inj. Adrenaline (1: 1000 dilution 1.819 mg/ ml conc.) @ 0.2 ml s.c.; effect started within 5 minutes such as forceful heart contractions/loud heart sounds,increase in heart rate and respiration rate;effect lasted for 4 hours ;inj. Avil @ 1-2 ml i/m initially;inj. Dexona vet @ 1-2 ml i/m initially and 0.5 ml i/v about 2 hours later; adrenaline @ 0.2 ml s/c after diluting to double the volume with normal saline given ½ hour after the effect of previously administered adrenaline was over; normal saline started as slow i/v drip at about 1 hour after start of symptoms and finished within 3-4 hours; ttemp. Was 100 degree f at 1 hour after start of symptoms.reversal of symptoms—arousal of ear reflex ,pedal reflex was present from start of aymptoms until last; tongue gone back into mouth;trying cathing of flies sitting on head mouth,licking water drops droopped on tongue;after 5 hours of start of symps,we detached i/v set from vein and tried to get him up;he was able to lift hid neck and lick his body part although lethargic and atunned; we discharged the dog with owner on nixt morning ,dog came jumping and playing with owner.amoxycillin 2 g sid i/m and tylox intramammary infusion b.d. /quarter is best therapy for mastitis in cow.if tr. Iodine sticked on hand, before washing with water,wash with spirit or alcohol immediately then with soap and water.for drying of udder quarter—1 % formaline 50 ml per quarter; commercial prep. Is 100 % formaline or 31 % formaldehyde.butric acid is added @ 5-10 ml (%) to 10 kg of milk replacer as preservative,rumen developer,increases absorption from intestine and also develop the epithelium of intestine.uromol brick—urea=10%,molasses-30 % ,maida-15 ,mineral mixture-15,sunflower cake/gnc/mustard-10,dorb-10 amd salt-10 ; extra added-vitamin a-25 i.u.,vit.d3-5 iu, heating and stirring for 30-35 minutes of urea and molasses to avoid urea toxicity then rest of the things are added;size of brick=2.5 kg; 5-10 minutes daily licking.mineral mixture—dicalcium phosphate-57 %,lime powder ie. Caco3-10,commam salt-30,mgso4+znso4+mnso4+cuso4+cocl2+feso4+ki=3 %.dog buiscuits—nonvegetarian type—maida-55 kg,cakes ie. Soyaflax./gnc-30,meat offel-10,mineral mixture-5,also ½ kg of vit.a+d+e+k and 1 g of b-complex and c ; all are mixed ,fitted/shapoed in moulds and then dried for 2-3 days at 80 degree forenheight in hot air ovan; after drying,glucose powder is sprinkled over these buiscuits and then passed under /flushed with nitrogen gas momentarly to prevent growth of harmful organisms;then packed in end ; note-vit. B complex is synthesized from butyric acid in small intestine/liver of calves. Uromol straw—70 kg of any dry fodder after chaffing ie.maize stovers,paddy ,hay etc.,molasses-1-3 kg,urea-100 g,mineral mixture-200 g ;urea is dissolved in ½ litre of water-add 200 g of mineral mixture-transfer it into 1 kg of mollassds-make it 6 litres by adding 4.5 litres of water ,spray with sprayer on 70 kg of dry straw ; it can be fed ad lib.

Ammoniation—40 days are reqired;100 kg of roughage,4 % urea and 35 litres of water; mix 4 kg urea In 5-6 litres water and make to 35 litres with water,spray on roughage after chaffing in pit / wooden box/polythene to create an anaerobic growth;oopen after 40 days ;before offering to animal,keep open to remove ammonia(pit pasted with dung first then polythene covering on floor and sides).silage—100 kg straw chaffed ie. Cut into small pieces like sani 1-2 inch pieces +5% ie. 5 kg molasses+1 % ie. 1 kg urea ; 4.5 x 4 x 3 inches –silage pit for 500-600 kg silage ;black polythene sheet-cheap ;straw should have 30-35 % dry matter ;make 6 inches layer –press it-give 1 spray of above ie. Urea + molasses –make another 6 inch layer above it-give another spray-likewise-make cone shaped above ground to drain out whole of the rain water(1.5-2 feet above the fround surface at the centre of cone)-put dry straw over it-polythene covering-pasting with wet loamy type soil.mites—sarcoptes-can be seen with naked eye,can be seen walking on body surface; psoroptes-never seen with naked eyes; mites-bristles on body,lice –no bristles on body; due to lice and mites-type-4 hypersensitivity, so use ointment betnovate- n ie. Betamethasone and neomycin.ascarid egg—yellowish embryonic mass and double wall.zycloz-1 ml / 15 kg body weight for all animals.yolk sac of 3 day old chick—0.5 cm in diameter attached with a stalk to large intestine;in omphalitis-yolk sac is very large.boroglycerine- 10 ml vial in market.1 ml of neurobione given at sacrococcygeal junction epidurally by dr. akshay found effective in hind

quarter paralysis.docking after 1 month of age is punishable under animal rights act.docking in the pups other than Labrador breed is punishable under animal rights act.in rumenal impaction—extract of pine – leaves effective-by rajendra of dhar ki ber .to flourish rumenal flora—drench 250 g of faeces of healthy animal daily –dr. b.k. sharma.do not use mustard oil as lubricant in dystochea because it is irritant-dr. karkara.temperature conversion formula—degree celcius = (degree forenheight – 32)

9 x5.

Degree forenheight=(9/5) degree celcius + 32.

Addresses of drug companies—indian herbs research and spply co. ltd.-shardanagar,saharanpur-247001(u.p.) India ;ph-(0132) 725044/45/46;fax-(0132)726288;e mail-insre @ vsnl.com.

Sarabhai chemicals—wadi wadi,baroda -390007,India.

Hoechst roussel vet pvt. Ltd.;neeta park,airport road,yerwada,pune-411006.

Vets pharma ltd.;reg. office-police lines road,jalandhar-144001,India ;ph.-(0) 0181-225432(f)01824-61764;e mil-vets @jla,vsnl.net.in

Care vet pharma –p.o. box 544,model gram road,ludhiana-141002.

Chhaina/cheese making—2 g citric acid + ¾ glass water –warm to 70 degree celcius,add to the milk(boiled and cooled to 70 degree celcius)-stirr-stationery kept-filter-press.

Uromol brix—complete composition per brick in g—c.f.=2 g,calcium=3,p=1.30,co=1,copper=.

Post mortem is always performed in day light.uromol liquid diet—urea-2.5%+water-2.5 %+mineral mixture-2 +nacl-1 + molasses-92 %;vitablend can be added @ 25 g /100 kg ration;ways to feed it-in drinking water @ 10 % in water dissolved-confirm its complete dissolution,made it drink after grazing.drum method—one bi drum cut in half lunar way/shape and uromol solution is felled into it upto the top,another empty drum is placed on the surface of earlier in such a way that it can rotate freely and be wetted with the uromol solution when animal licks it according to own requirement,it rotates and rebecomes wet.

Bricks of forage and grains—can be used as a maintenance ration – damaged weight 27 %+rice bran 20 + wheat bran 25 +gnc or mustard cake 25 +mineral mixture 2 + nacl 1 %-- ground and make a mixture ; 29 % of above mixture +mustard bhoosa / bajra – kadvi/wheat bhusa = 60 % +molasses =10 %+urea=1% --mixed all and compressed with machine at 4000 psi pressure in the shape of a bricks. Above said methods-for all ruminants including sheep and goat . jowar(chari) has prussic acid so do not feed it in immature stage.never feed drought affected chari.with green jowar,supplement it with 50 % of dry forage always.cutting of chari to be only done on morning and evening and after cutting ,do not keep fodder for more time.experiences gained during drda(solan) – dairy camps---- a.i. can be done after 45 days of parturition;ovulation occurs after 12-24 hours of receptal administration.stop milking of cross bred cow 2 months before parturition.tight teat sphincter—clove ie. laung after sharping its end inserted into teat after each milking using new one every time.glycerine @ 5 ml/200 ml of lugoles iodine is essential to prevent precipitation.enzootic haematurea in chail of kandaghat tehsil recovers temporarily after drenching whey/lassi.fat % of milk does not fluctuate more than 0.02 % by feeding differences of any kind because it is purely a breed character.environmental temperature- increase >25 degree celcius result in halving of milk production by the cow.albendazole may have lactogenic effect.lime water (clear watery) + milk for calf as ca- tonic.if total heat length is devided into 3 equal time periods then a.i. is done at the end of 2nd period.a.i. is done 8 hours before the end of heat.i total heat = 24 hours,then a.i. is done after 15-16 hours of start of heat.proeatrous-altered behaviour to environment,sniffing ie. Soonghana of premices etc,early heat-freauent micturition,vagina pink and swollen ,discharge thin,mid eatrous –dischargid viscous but breaking ,mount others; late heat-discharge thick,viscous and stingy,stands to be mounted.by the calved cow after complete involution of uterus to prevent cheating.pyometra—systemic + intrauterine antibiotics.it takes 6 months for pyometra case to be fertile again.after treatment of pyometra—2-3 cycles sexual rest is given for healing of endometrium.(fat % x 2)+2.10=rs. /litre ie. Milk rate.israil—best milk producer without green fodder.lucerne not to be fed to sheep and goat and

only upto 1/3 rd of total green to other rumenants.above 24 degree celcius,milk yield drops appreciably ;at 0 degree celcius , milk yield is 22 litres as compared to 20 litre /day at 15-16 degree celcius.in case of leopard – destroyed cow ,forest / wild life dept. gives 2-2.5 thousands of rupees if from shed,1000 if from mulkiyat and ghasani and nothing if from jungle.fern pattern of cervical mucous—for identifying infection with microscope by advanced technique.time needed for rumination ie. Jugali is 4-5 hours after 1 hour of feed intake.give rest to cow / buffallow for 15 minutes pre and post insemination.during each heat ,pus gets accumulated and so pyometra increases.give binaula boiled or wetted only.fascioliasis through sheep and goat ie. Migrating flock to cattle /cow.water of bottle jaw comes down during walking/in afternoon and reappears in morning.large abdomen ie. Pending belly downward occurs due to protein deficiency and endoparasitism.kadha—energy rich food .contraction of uterus—ajwain etc. spices.maxium yield of cow—102 litres / day.to observe 3 consecutive milkings ie. Morning,afternoon and evening is must to purcase a milch animal to avoid cheating.time fixed regular milking is must . granular vaginitis ie. Granules in vagina—early embryonic death within a month.nitrogen fumes of a cryocontainer= -80 degree celcius.dont lift straw > 6 inches above liquid nitrogen surface.hard sphinter and prolapse—congenital diseases ie genetically inhetrited.high yield in early lactation attracts better feeding so high chances of conception.september and October –best months to cut green forage for hay making.adrenaline causes low uterine contractions so low sperm transport and less oxytocin .target of milk production / lactation / cow—israil-11000,Europe-7000 and India-3500 litres / lactation. waste of body collected into intestine of prenatal foetus—muconium.oxytetracycline inj. Is safe on i/v administration except that containing procaine (l.a.) go avoid cardiac toxicity.chlorphenyramine maleate on i/v adm. May produce excitement ,convulsion and many side effects.corticosteroides produce liver damage in dogs ,so avoided in liver diseases.for 400 kg cow, daily allowance—dry forage-5 kg,green forage-2 kg.perhaps concentrate for maintenance not needed when green forage is available.luteal cyst is thick walled ie. >3 mm thickness.follicular cysts are 2-3 times more comman than luteal cysts.follicular cysts—excessive and prolonged signs of estrous and shortened interval between successive heats,stand to be mounted by others.luteal cyst—function like a persistant corpus luteum,muscaline ie. Virilism behaviour and mount the other cows ,but not stand to be mounted as with follicular cyst.prid ie. Progesterone releasing intravaginal devices—block the support of gnrh for maintenance of follicular cysts not responding to other thetapy /gnrh etc. ,are best treated by this method.routine treatment for every kind of cyst—treatment with gnrh followed by rx with pgf2 alfa after 9 days.1 kg of standard concentrate ration is needed for production of 3 kg cow milk or 2.5 kg of buffallow milk . perhaps conc. Needed for maintenance is 1 to 1.5 kg .proteins of soyabean and fish meal passes unchanged through the rumen ie. Bypass proteins so best for the high yielders.serum progesterone concentration in pregnant animal decreased when cpdm was increased from 13 to 15%,so high protein ie. 20 % cpdm intake during pregnancy causes increased chances of dystochia,retained placenta and metritis as compared to 13 % cpdm.c.l. is main sourse of progesterone upto 200 days of pregnancy thereafter placenta releases it mainly.in retained placenta case,endometritis always occurs.danger period for milk fever is upto 10 days post partum.milking is to be completed within 8 minutes for efficient let down.single doze administration of corticosteroid is never contraindicated except in pregnancy.dexona even 4-5 mg raises blood glucose level,starts rising after 12 hours of administration in cow.fall in fever by nsaids results due to rice in heat dissipation rather not in fall in heat production ,so in my opinion heart rrate remaims unaffected/accelerated.anthiomaline acts better generally in pedunculated warts, it acts by cutting the blood supply to prodruding /cancerous/wart tissue.autogenous vaccine is made superior /better with the highly proliferating wart tissue.lithium so the anthiomaline causes a no. of congenital defects of fetus in pregnant animal –drug index medical(human). Charcoal adsorbs ammonia.progesterone do not have a parturition delaying effect-arthur.after 3 months of pregnancy,experimental attempt to induce abortion per rectally was found impossible – Arthur.bactericidal and bacteriostatic drugs administered together shows an antagonism-john s

pharma.with corticosteroid,diarrhea may occure-vial leaflet.adding glycerine to betadine decreases its bacteriocidal property appreciably but to a lesser extent than addition of liquid paraffin – john.atropine sulphate is injected upto effect in organophosphate poisoning ie. Upto disappearance of salivary discharge –john.nematodes eggs directly ingested with dung hatches inside bowel but not the eggs of other parasites hatch this way-blood med.heat in pregnancy occurs due to placental oestrogens.oxytocin acts only for 36 hours post partum-arthur.no advantage of purse string suturing after correction of uterine prolapse over preventive measures for 48 hours in which cervix contracts too much-arthur.spasmolytics in diarrhea accelerates the infection.neblone is the drug of choice against diarrhea.best i/m inj.site –middle of the neck in anteroposterior direction and base of upper third equal part in dorsoventral direction.

Salty milk in mastitis due to higher chloride content.incissors of ruminants-loose and shaking.bovirum bolus—chemical reticulitis in static rumen.cold milk-good antacid so given in gastritis.egg-demulsion so given in gastritis.rectal anema(eg. Soapy water) is must in every type of colic-materia medica.vinegar contains 5.4 % of acetic acid-mat medica.vinegar destroys lice eggs—mate medica for veterinary students.streptomycin acts better in alkaline medium-m.m.xylazine not given in advanced pregnancy due to its oxytocic effect.berseem has oestrogen.urea metabolism—unaccustomed animal -0.25 g/kg of urea as toxic;100 g of uromol brick-10 g urea; cattle feed has 1 % urea(0.5 kg/50 kg feed); toxic doze in unaccustomed animal=50 g; largest limiting doze in accustomed animal=1g/kg(may be body weight);mineral mixture in 100 g of uromol brix=15 g; xylazin not used in advanced pregnancy due to its oxytocic effect.chlorinated hydrocarbon eg. Ddt poisoning—mifex i/v is indicated;depressants to be given at convulsive stage only; at depression stage,neighter depressants nor convulsants are given.ddt poisoning—very high excitement,head pessing, very high fever and respiration rate,frothing and bronchial secretion.siquil—weak cholinergic actiondo not inhibit convulsions caused by 2-3 drugs/chemicals only.dicyclomine—weak anticholinergic action,inhibits polysynaptic impulses ie. Motor pathways at spinal chord level.upto puberity,high protein feed results in increased growgh of body tissues;after puberty,high protein feed results in increase in body fat.in furious animals-adopt this method of injection / vaccination—fit the syringe and needle to a catheter (plastic) of i/v drip set,suck the drug into tube with syringe,insert the needle and let the animal move,inject the drug by pressing piston.pequin ie.sulphaquinoxillin is highly effective in rabbit against diarrhea.amyl alcohol @0.02mg/kg at sacrococcygeal space in goat and retension suturing which were removed after 10 days;tail flaccid for 38 days;then regained tone,no reoccurrence.inj. receptal at 11-13 days postmating increases conception in repeat breeder.parvovirus—haemorrhagic diarrhea and vomition,not fatal with supportive treatment.coronavirus—vomition and diarrhea,not fatal with supportive treatment.mixed ie. Corona and parvo virus—haematemesis,highly fatal.facial paralysis in a bullock—salivation,drooping ear,occurred due to trauma,no sense to pin prick;differentiatd from hysteria,middle ear infection,polyencephelomalacia,meningoencephalitis,rabies and cranial nerve lesions.strongylosis in equines—ivermectin>fenbendazole as per efficacy.sarcoptes of dog—4 applications of deltamethrin at weekly interval for complete recovery.demodex in dog—if local-2-3 applications of ivermectin at weekly interval, if genetalised-4 applications of ivermectin at weekly interval.cav-2 (lower side effects) prevents against cav-1.sorghum atexia cystitis syndrome—urinary incontinence and hind limb atexia;treatment-as for cyanide poisoning ,inj. Cobalt chloride and antibiotics.greenish diarrhea-fowl typhoid,white diarrhea-pullorum,both by salmonella.bihul ka chhilka ie. Banar as antidiarrheal in rabbit.hepatocutaneous syndrome in dog ie. New disease—rx as liver tonic and antibiotics.mismating treated in bitch within 72 hours of mating.serious risk of death during titanic spasms in eclempsia in bitch,so do treatment fast.gentamicin and lincomycin can be used with i/v solutions.gentamycin and tetracyclines can cot be combined with any other drug,similarly ampicillin and cephalosporin also.diarrhea in

calf—warm saline water (9 g salt / litre)for 24 hours fed @ 1 litre tds.setariosis in horses—weakness,atexia and paresis of hind limb –so give levamisole.haemorrhagic septicemia—gentamicin,chloremphenicol,enrocin.ampicillin @ 20 mg/kg i/m sid for mastitis.cephalosporins @ 10-15 mg/kg i/m sid in mastitis.drying of quarters-by creating chemical mastitis-80 ml of 5 % cuso4 solution or 3 % agno3 (30 -60 ml) per quarter, if a severe local reaction –miked out and stripped off frequently until the reaction subsides otherwise stripped out in 10-14 days.teat dipping—iodene ie. 0.5 % solution +glycerine @ 25 % of iodine solution or chlorhexidine 0.5 % +glycerine @ 0.6 % of solution or hypochlorite solution with 4 % available chlorine.no. of mycotoxins till discovered=300.coliform vaccine in usa against mastitis.oxyclozanide is best against fascioliasis.ear tag acaricide—slow release of fumes from plastic matrix and deposited on coat;efficacy for 5 months.slow dilution to prevent dilution shock to sperms.chilled semen (4-5 degree celcius) fertile for 48-72 hours,freezing kills spermatozoa.german straw=0.25 ml,French straw=0.5 ml.best thawing regimn—40 degree celcius for 30 seconds.cystic ovary—fluid filled structure larger than a follicle ie.>2.5 cm in diameter.post a.i. intrauterine infusion of immunomodulators in the estrus is better in subclinical bacterial endometrtis. Good blood to milk penetration ability antibiotics—macrolids,enrofloxacin,tetracyclines and chloremphenicol(intermediate),fluoroquinolones.to treat mycotic endometritis—intrauterine lugoles iodine (0.25 %)with a minimum of 100 ml (dependin g on the size of uterus)consecutely for 3 days and for 3 consecutive heat periods-punjab vety gernal,volume 1,march,2001. true anoestrous—receptal @ 5 ml i/m ,comes in heat within 10 days if not coming,then it can be repeated.for placental expulsion—pgf2 alfa or pgf2 l.oral feeding of minerals and b-complex vitamins for activating ruminal bacteria.scant dung and decreased appetite –feed vegetable oil.if impaction is due to napier bajra,calcium therapy is done.hypocuprosis in a buffallow heifer—depigmentation of entire skin (diffused type) and anoestrus-copper glycinate @ 2 ml ie. 150 mg s/c inj. In brisket region ,repeated after 30 days ;after first inj.,leucoderma disappeared;after 2nd inj.,animal came to heat and conceived with a.i.transition ration should be given in late gestation to adopt rumen flora to increased amount of concentrates in the post parturient period;dietry protein=16-18 %.maize has alpha polymerized glucose.combined vaccines are potent for dogs.neem leaves have antihepatotoxic activity.sheep rumen liquour can be used in cattle.setaria in blood ie. Microfilaria and eye ie. Adult –fenbendazole @ 15 mg/kg b.wt. and surgical removal from eye –best in horse,causes anemia and hypoglycemia.laceration of tongue—diazepam,local analgesia and stiching with silk or catgut in cow; post operative-ascorbic acid 10 ml i.v.,multivitamin inj,dns 4 litres for 5 days.pgf2 alfa treatment of anestrous buff. With a c.l. is good for rural area.treatment of alkaline indigestion with ringer lactate i/v @ 20 ml / kg b.wt. for 4 days.stresroak(herbal product) is better immunomodulator than zinc sulphate for poultry so given after vaccination @ 10 ml/100 birds or znso4 @ 40 ppm in driking water for 4 weeks from day of vaccination.immunomodulators given i/uterine at a.i. in endometritis is e.coli liposaccharide and levamisole.total protozoa and bacterial population ,nh3-n, total volatile fatty acids ie.tvfa and ivdmd ie. In vitro dry matter digestion increased significantly at 4 % level of free fatty acid supplementation.cow fed with 0.2 % sodium bicarbonate of total ration –milk fat increased by 0.3 % (only upto continuation of feeding).cow staggering,shivering,hypersensitive and hypergalactic—101 degree f temp.-collection of c.s.f. at lumbosacral puncture after sedating with xylazine (lightly,18 g needle); csf-haematologically and bioichemically clear,bacteriologicallly-gram +ve bacteria;so recovered after cst and treatment.trypanosomiases in jungle cat—berenil given,bilateral corneal opacity.buffallow heifer—inj. Proluton ie. Progesterone 250 mg i.m. followed by gonadorelin 250 microgram ie. 2.5 ml receptal ie. Gnrh i.m. on day 10 th ;method was found better than receptal alone.oxyclozanide is best against fascioliasis.fluorosis in goats—lameness ie. Excoriation of sole ,loss of glossiness of skin,alopecia,partial anorexia,dental problem.enzymes ie. Gluconase,proeinase,xylanase etc. @ 1 kg /tonn and probiotics @ 0.23 kg/ tonn feed increases egg production in poultry.dysentry in dog—adrenochromemonosemicarbazone @ 0.1-0.2 mg/kg b.wt. as a supportive

treatment.ivermectin @ 200 microgram/kg is most effective against strongylosis in equine followed by fenbendazole @ 10 mg/kg.yield of 4 % fat,corrected milk,total solids,fat,and milk protein ccan be highly improved by feeding formaldehyde tresated oil seeds(soyabean or sunflower seed not gnc.an afult cow can eat upto 500 g umm block ie. Uromol mineral block daily.in a buffallow yielding 8-10 litres milk/ day ,20 % conc. Ration can be replaced with ummb.macrolids have very good ability to penetrate blood – milk arrier followed by enroflxacin.an ideal antibiotic for parentral mastitis therapy should possess-high bioavailability from i/m site,low mic ie. Minimum inhibitory concentration against majority of udder pathogens,sufficient lipid solubility,chemically weak base or highly nonionized in serym,less degree of serum protein binding and long elimination half life in body.pgf2 l given for retention of placenta.true anoestrus—animal comes in heat within 10 days of receptal ie. 5 ml i/m administration ,if not then it can be repeatd.cu- deficiency—lukoderma and anoestrus.rice waste can he sunbstituted for maize upto a maximum level of 20 %.multiple nodular ,pedunculated ,cauliflower like growth in oral commissures ,upper palate and pharynx in dog—good response to thuja 200 c@20 drops daily.periparturient diseases including the endometritis are associated with the fatty liver.where no effect of antibiotic on parotitis and actinobacillosis etc,potassium iodide oral therapy is practiced.aqueous extract from leaves of azadirahta indica caused 80 % mortality to adults of tropical hen louse and 77 % repellency against the same.linea alba incision as best for diaphragmatic herniaorrhaphy.8-10 days period is needed for change of colostrums to normal milk post partum.metronidazole is best in trichomoniasis.samw @ of pgf2 alfa repeated on 11 th day after luteolysis by single doze administration—better conception due to more luteolysis in suboestrus buffallow.potassium acetate is given orally in downer cow,diarrhea and muscle damage etc.puerperal tetany in a doe—due to hypocalcemia,,more comman in first 2 weeks of parturition but can be seen prior to parturition.endometritis in cross bred cow—oxytrtracycline hcl ie. 5 % @ 30 ml intrauterine for 3 days was found most effective followed by povidone iodine 5 % ie. Betadine @ 30 ml i/uterine for 3 days.regression of pregnancy c.l. within 1-2 weeks ,growth of growth of palpable follicle from first to 5th week after parturition and in majority ,in 2nd weak after parturition . anticoccidial affect is maximum when herbal anticoccidials are combined /administered along woth amprolium.warts on vulva ,vulval lips and over the boy (1 cm upward and dry,cauliflower like)in a 8 month old female calf—tincture of thuja (thuza q.s.)@ 2 ml diluted with 2 ml of distilled water subcut. Administration weekly once for a period of 4 weeks complete sloughing of papillomas after 4 weeks of above treatment.7.5 mg of pgf2 alfa i/m on day 0 and the second injection on day 11;estrous detection carried out through apronized rams ;time reauired for onset of estrus was 69.50 + or – 7.14 hours after cessation of treatment –estrus synchronization,average duration of synchronized estrus=26.75 + or – 1.11 hour.magnesia phosphorica(homoeo ,remedy of choice in cramp and convulsions)for epilepsy in dogs—symptoms ie. Epileptic convulsions and seizures with salivation once weekly for few seconds ,no satisfactory response with allopathic drugs ; then treated with mag phos 6x3 tablets placed on tongue once daily for one month,advised to continue it once a week after regular 6 month doze ;note-mag phos 6 x of medisynth (p) ltd.santacruz (e),Mumbai; very good response.exhibition of estrus in buffallow with and without c.l. show that buffallow cows and heifer with smooth ovaries without palpable c.l. might bave luteal tissues embedded in the ovarian cortex and which might have degenerated similar to the degeneration of distinct c.l. following the pgf 2 alfa injection in cattle and buffallows ,this type of smooth ovary is comman in summer.oxyclozanide is the drug of choice in fasciliasis in cattle.ivermectin was found highly effective in all forms of mange in dog with 1-3 applications spread over 14-28 days.ivermectin is 98.6 % effective ,fenbendazole 95.95 % effective against strongylosis in equines.heat in cross bred cow remains for 24-36 hours and in local cows for 12-24 hours.age of sexual maturity in cross bred cow is 15-18 months ,in local 30-35 months .required weight of heifer at first insemination is 225-250 kg for zersey cross bred and 250-275 kg h.f.fertile life of ovum after ovulation=6-12 hours,life of sperm in genital tract=24 hours.best result if insemination done during mid to end heat ;therefore ,insemination is

done 11-12 and 18-24 hours after the onset of heat for local and cross bred cows respectively.dietery essential vitamins for dairy animals =vitamin a,d,e and k,most of the green fodders are rich in these vitamins.vitamin mixture is fed when green fodder is in limited quantity or absent.5 kg of buffallow milk and 7 kg of cow milk can be produced with only highly mutritious green fodder in an amount upto 40-60 kg /head/day at proper stage of cutting.early cuttings of berseem should be mixed with wheat straw to prevent diarrhea.30 kg of green fodder like jowar, bajra,maize,Lucerne and berseem—maintenance need of 400 kg cow.2 types of concentrate – with dcp (13-15 %)ie. Lower dcp which is fed with leguminous fodder and high dcp ie. 16-18 % fed with nonleguminous fodder.drying of cow—withhold concentrate and reduce green fodder for 5-7 days and stop milking abruptly; infuse intramammary tubes meant for dry therapy. Give 1 kg extra conc. Ration as growth allowance to heifers upto 2 lactation.vacate the pasture for 6 weeks to enable the solar heat and natural decay to destroy larvae, practise mixed and alternate grazing with different sp. Of animals.molluscicide—a 0.5 % cuso4 spray @ 137 gallons pwr acre. Vaccination against brucellosis is done if > 5 % +ve cases in the herd.fodders sprayed recently with pesticides should not be fed due to high hcn – contents.excessive feeding of paddy straw for long period may result in chronic alkaline indigestion due to more production of bicarbonates in the rumen.eating of spoiled silage ,dung contaminated concentrates or feeds,sewerage water,calves drinking more milk from unclean buckets –alkaline indigestion.rumen acidosis—excessive feeding of gur –mollasses,grains, potato,apples and sudden change of feed from high roughage to high concentrate diets or from pelleted to fine ground grains.where the animal has ingested the grains but the signs have not developed ,restrict the water atleast for 24 hours and rumen liquor –ph should be monitored.more feeding of paddy straw for more period may result in chronic alkaline indigestion due to high production of bicarbonates in the rumen.eating of spoiled silage ,dung contaminated concentrates or feeds ,sewerage water,calves drinking more milk from unclean buckets –alkaline indigestion.chronic alkaline indigestion due to paddy straw feeding—progressive body weight loss,dehydration,weakness of hind quarters and recumbency.subacute alkalosis—treatment with 5 % acetic acid @ 5-10 ml/kg body weight or 750 ml of commercial vinegar.in urea toxicity ,oral administration of vinegar to be repeated at 30 minutes intervals if convulsions are persisting ;if no improvement,immediate rumenotomy can save the life of animal.rumen acidosis—animals which survive for 24 hours or more have normal ph due to buffering action of saliva and absorption of lactic acid but have no protozoa in the rumen – fluid; if rumen ph is less than 5 and heart rate more than 100 per minute and dehydration more than 8 % ,ruminal distension and recumbency occurs so emergency rumenotomy is required.if ph more than 5 and less signs –rumenal lavage with warm water with a stomach tube ,several flushes with 40-60 litres of water.calf diarrhea with fever and swollen joints –salmonella.calf diarrhea with tenesmus and dysentery ie. Fresh blood in faeces-coccidiosis and occasionally salmonella.faeces having blood ,mucous and undigested milk in cryptosporidium. No clinical signs-if dietry diarrhea.diarrhic calf recumbent-1.3 % nahco3 solution.single administration of gnrh @ 0.5 mg may induce heat in cows but not in buffallows.prid inserted for 10 days, cow come in heat within 2-3 days of its removal,prid + pmsg-heat in 50 % of healthy animals.berseem,Lucerne,mouldy maize and barley—high contents of oestrogen.the prolapsed portion in vaginocervical prolapse may be raised dorsally to reduce the sharp kink in the urethra,thus permitting the urine to escape.no pregnant animals showing cystic ovaries should be treated with hcg or gnrh.bulls retain normal sexual desire until 5-6 years of age,beyond this libido gradually declines.hcg @ 5000-10000 units at interval of 3 days for maximum 3 injections or testosterone 100-400 mg i/m or gnrh 300-400 micro gram helps in improving the libido in some bulls.corynebacterium renale is able to grow in urine so it causes pyelonephritis when there is partial or complete obstruction to flow of urine.because of their size,horses and cattle do not die as a direct result of snake bite but death occurs due to bite on muzzle ,head or neck when dyspnoea results from excessive swelling.torniquet ie. Pressure bandage should not be applied for more then 2 hours ;if it is essential to keep it for long time,it

should be released every 10-15 minutes for a period of 2-3 minutes to restore circulation.incision at snake bite site—1/4 inch long and 1/8-1/4 inch deep and not more.antivenin should be given with 0.5-1 ml of epinephrine ie.1: 1000 by s/c route.intramammary infusion for dry cow therapy—orbenin dry cow and fluclox-d.if a milch animal suffers from attacks of clinical mastitis 5 or more times during a lactation ,it is a chronic case and permanent source pf infection so it should be culled.proteinuria in all cases of pyelonephritis (acute and chronic);long term antibiotic therapy ie. Atleast for 3 weeks is good for acute pyelonephritis , not for chronic where abscesses might have developed.chronic pyelonephritis often leads to bilateral infection so renal failure.cortisole inhibits the release of thyroid hormones.thyroid hormones play basic role in reproduction and lactation of animals.gram- straw was quite palatable ,nutritious and non hazardous for small ruminants.castration is important tool in enhancing meat production.protruded and paralysed tongue in bovine due to glossoplegia due to excessive traction so salivation, inability to take feed and water etc.case with nervous symptoms in canine should be examined for cerebral babesiosis and may be treated accordingly.subclinical ketosis in cow—hypoglycemia,ketonuria , ketonemia and aciduria ; clinical-refusal to eat concentrates,inappetance and fall in milk production. Subclinical ketosis-within a few weeks of calving with overall incidence of 36 % in cross bred zersey cows.antibiotics,minerals,vitamins and anthelmitics injected in wild animals with syringe darts ie. Remote method.manure to be stored in manure pit to avoid fly nuiscence.omasal impaction—deep palpation between right 7 th and 9 th ribs at the omasal area evinced pain,moaning and grunting of the teeth in some animals and some lied down while deep pressure was given with fingers at the omasal area.rumenal foreign bodies enlarge in size due to deposition of mucous ,feed particles etc.formaldehyde is a normal metabolite in mammalian system.diclofenac sodium is toxic in dog even at low dozes and for short period,so do not give it to dog.human placental extract has gnrh activity.corticosteroides eg. Betamethasone prevents tissue destruction and fibrosis.deficiency of cu and zn may be a predisposing factor in the foot rot of sheep.rectal prolapse in pup due to constipation –purse string sutures after desensitizing with lignocaine and antibiotics,oral calcium and multivitamins,fibrous diets ,stool passed on same evening ,sutures removed on 10 th day with perfect recovery.cutaneous habronemiasis in a mule—lesions mainly in regions where it can not remove flies,fly gives larvae on existing wound , no larvae detected either in scrapings or exudates of summer sore lesion,lesions developed over 3 years with no spontaneous recovery,lesion size was 10-15 cm, respond to 2 injections of doramectin @ 200 microgram / kg at 20 days interval and a single inj. Of levamisole hcl @ 375 mg around the lesion after 10 days of start of treatment,lorexane ointment,healing started with in 10 days following treatment and complete epithelialization within 4 weeks.levamisole hcl is toxic even at double the recommended dosaze,symptoms of toxicity are cholinergic crisis epileptic convulsions,antidote is atropine sulphate.liquid drug administration to chicken with polythene tube attached to syringe.assessment of serum immunoglobulins level in calves by sodium sulphite precipitation test is a simple ,easy and field practice(by Pfeiffer et.al,loc.cit).selection on the basis of first lactation milk yield is the most effective in improving all other traits.the average protein and fat of pigeon is 22 and 15 % respectively.calcarea phosphorica is a combination of lime water and tricalic po4,it acts as growth promoter and increases feed utilization and production in broiler chicken when fed @ 10 drops per os of calcarea phosphorica -200 at weekly interval for 6 weeks.b – complex synthesis in rumen starts with regurgitation.b- complex and liver extract are not needed if digestion and appetite is fine in rumenants,liver extract needed only in liver dysfunction.nux vomica stimulates vagus nerve ie. Digestive nerve.chronic toxicity of no2/no3 in animals are more comman than acute,signs of chronic toxicity are methaemoglobinemia ie. Weakness,ataxia,trmbling,hypersensitivity,gasping of breath,a rapid pulse;a significant reduction in growth ,feed consumption and rate of weight gain were seen in chicks;addition of vitamin e is beneficial in respect of the body weitht.infraanal approach is best for cystorrhaphy in bovine than other approaches.birth rate of goats is quite high than sheep.plumage colour is an important

criteria for recognizing a particular breed or type in desi poultry as it is highly heritable.hypothyroidism in dog—symmetrically bilateral non-pruritic alopecia of the neck,trunk flank and tail; case-dermatitis ie. Patchy or extensive alopecia,dry brittle hair coat,scaly lesions,hyperpigmentation and bilaterally symmetrical skin lesions,treatment with tablet eltroxin (thyroid tablets,by galaxo,100 microgram) @ 1 tab. Daily for 30 days and based on need,further treatment given after a break of 10 days;examination of faecal samples and skin scrapings-revealed no evidence of endoparasites,enteroprotozoan,mange or mycotic infections,haemogram values in normal range.respiratory disease in a dog since 4 months with no effect of antibiotics etc.-mucous of nostril and pharynx show free larvae with s-shaped pointed tail under microscope,faecal sample shown no abcormality ,single inection of doramectin @ 1ml /50 kg body weight subcut. Resulted in complete recovery.rds ie. Respiratory disease syndrome—in equine—bacterial sensitivity was highest to chlorempheniсol ie. 91.66 % followed by gentamicin 88 %, tetracycline 75 % and ciprofloxacin 70 %.linguatula serrata parasite in dog—sneezing,wounds on nasal mucosa and respiratory distress,nasal discharge-blood stained,dyspnoea,faecal samples and nasal discharge - + ve for ova.copper deficiency—diarrhoea and depigmentation of hair ie. Black turned white.foetus (foal or calf) should be removed within 2 minutes of slaughtering of dam other wise foetus die.resistance to infection decreased with improper/ less calcium.

Self Experiences

Mastitis occurred due to incomplete milking of postparturient cow to prevent weight loss from anorexia because of retension of placenta and dystochia-ganesh – cow katyara.corticosteroid is administered to cow not for simply euphoria (so appetizer) but mainly to decrease milk yield and so weakness ;although acc. To one theory,high blood glucose reduces appetite in non ketotic animal-katyara.appetite is reduced/absent due to pain sensation and allergy /histamine in animals.liquid nitrogen –level in the container should not go below 6 inches ie. 15 cm height from the bottom of cylinder- sh. Vidyadatt.incomplete milking to prevent weakness resulted in severe staphylococcal mastitis—katyara.in anorexia and weakness of milking non pregnant cow-give corticosteroid atleast 10 mg as a single doze.bloat occurred due to rumenal statis due to histamine liberated during mastitis.berenil is to be repeated 2nd time after a week time for theileriosis due to better action of the drug on adult parasite.progressive farmers should be taught only to collect body parameters not to interpret those.in ephemeral fever,rumenal stasis and bloat ie. Temporary may result due to histamine release.licking should be avoided to prevent tearing of suture line so bandage is applied.rumen fluid – ph should be taken when needed immediately.high concentration ie. > 0.05-0.1 and more volume ie. > 30 ml of lugoles iodine should be avoided intrauterine.never depend on p.d. done by other veterinarian , so perform p.d. with your own hand before giving any undesired medication or even desired to be safe from public blame—khareri.anthiomaline is teratogenic so avoided in whole of the pregnancy.never try to touch c.l. and lift up the genital organs before confirming the non pregnancy or simply saying that if the uterus is gravid or non-gravid-khareri,mansa ram.in case of pyometra,intrauterine lugoles iodine ie. 0.1 % is to be administered 6 times at an a.d. ie. Alternate days interval-dr. b.k. sharma.autoheamotherapy is best for allergy-dr.b.k. sharma.sudden withdrawl of high doze of progesterone in pregnancy—withdrawl effect ie. Gnrh release and abortion-dr. b.k. sharma.you can say non pregnant as a pregnant but not the vice versa to avoid economic losses,you can say that dout is there and may be confirmed after 1-2 months frankly otherwise.for confirming the follicular cyst ie. Extra large ovary,soft and fluctuating; reexamination can be done after 11-13 days ; in practice, if normal follicle-intense heat and if follicular cyst-anoestrus or nymphomania, in case of normal follicle-c.l. on reexamination----by dr. b.k. sharma.by per rectal examination, impaction can not be diagnosed.delta/cypermethrin applied to skin is absorbed to sub cut. Tissues within 2 hours so avoid licking for 2 hours for drug action-dr. dileep singh thakur.it is better to do per rectal examination and manipulation with bare hand because polythene gloves interfere with the p.d. and ovarian examination.magnesium sulphate helps in water metabolism / haemostasis so

given in toxemias.sodium bicarbonate p.o. feeding in enteritis.rumen fluid –ph examination is very much essential before oral administration of soda or vinegar to avoid complications.inj. ranitidine is highly effective in gastritis.double time a.i. at the same time is not preferred due to no beneficial effect and higher risk of endometritis and injury. If large sized and soft fluctuating ovary is a developing follicle then cow should be in an intense heat but in case of follicular cyst ,the cow is either nymphomanic or in anoestrus-dr. b.k. sharma.liver tonic is not given in fever.mastitis in the quarter if treated properly shows ful milk yield in next lactation from the same treated quarter.warts first appears as pin head size granules than grow in size and shape.if a.i. is done at time of injecting receptal,it should be repeated again after 12 hours.lameness and lymphadenitis ie. Enlarged lymph gland in one leg responds well to antibiotics.never allow even one drop of blood to drop during removal of placenta,if so then stop removing-katyara cow.no induction of abortion in 6.5 month pregnant cow by 10 ml of dexona parentrally but was induced with diethylstilbesterol—nain.0.5 ml=11 drops so 1 ml=22 drops.postmortem is always performed in day light .never drench an animal with respiratory problem ie. Abnormality of bronchus ,bronchitis etc. because there is always difficulty in swallowing which complicates further.cows infected with brucella abortus abort only once, very few cows abort 3 times continuously and then natural immunity sets in but acts as a source of infection for others-arthur.

HOMOEOPATHIC MEDICINE (DR. LEELA DATT SHARMA,UNCLE)—

A)Recurrent post parturient vaginal prolapse—1) podophyllum @ 200 P (potency) @ 10 drops every 2 hours upto 3 dozes ,effect is permanent. If not recovering then 2)borax 1000 P @ 10 drops every 2 hours upto 3 dozes ,effect produced is permanent; if still not recovering then -3) sepia 200 P @ 10 drops every 2 hours upto 3 dozes, permanent effect.

B)preparturient vaginal prolapse—1)pulsetilla 30 P @ 5-10 drops every 2 hours ,it will lose the uterus and will help in birth of calf,also has a pain killing action only on uterus and stomach, it will act only at time of parturition ie. 1-4 days prior to parturition;if it is more than 4 days for parturition to occure then give the above drugs as for the post parturient vaginal prolapse (no. A) ie. Recurrent type.

Uterine prolapse—

-canthries 30 P @ 5-10 drops every 2 hours upto 3 dozes.

Warts—

1) claw type ,sharp and smooth-entimcrud 200 P @ 2-5 drops tid for 15 days ,completely disappear within 8-60 days; 2) smooth ie. Like skin and blunt-same ie. Entimcrud 200 P @2- 5 drops tid for 15 days; rough and blunt or sharp-thuza 200P @ 5 drops sid for 8 days. Total time to disappear=8-30 days.ointment is also to be used locally ; procesure for local application-creosote mother tincture(prevent it from spilling in to the eyes) tid application on warts x 3 days,it will burn / irritate the wart tissue,drug will evaporate in 2-5 minutes so then it can be washed and milked ;after 3 days of above treatment , start thuja ointment sid application only after drying the warts for period as for disappearance of warts,thuja decreases the milk yield; both of these antiwart drugs can be safely given in pregnancy;note-thuja ointment and entimcrud orally can be given together.
2) Retension of placenta—pulsetilla Q (Q means mother tincture) @ 20 drops every 2 hours upto three dozes or continue to give upto the drop of placenta,it should also be an uterine cleansing agent after the delivery.

General knowledge --

Revisions on 2^{nd} ,7^{th},15^{th},30^{th} and 180^{th} days-most beneficial.reading continuously for more than 45 minutes is to be avoided.nuxvomica ie. Kuchala @ rs. 10/ 10 g at balmukand ,solan.testosterone level in male falls (so muscle contraction power decreases) and in female rises after sexual intercourse.man /husband feels fall in stress on expense of wife but after child born,female also feels fall in stress.

Experiences and knowledge gained at ntrs-garsa-

Rabbits don't need selenium,vit. B complex and vit. C.vitamin requirement of rabbit is very low.vit. a deficiency in rabbit-drooping ears.gossypol of cotton seed meal is toxic so fed upto 10 % of total ration to rabbit.raw soyabean is toxic.even slight change of feed (although better one introduced) –enteritis in rabbit.nfe ie. Nitrogen free extract=soluble carbohydrates ie . starch etc.=100 –(c.f.+e.e.+c.p.+minerals).no need of feed additives and flavours for rabbits .high feeding of molasses-diarrhoea in rabbit.more digestible carbohydrates-hind gut overload abundant fibre should be fed.rabbits can digest high level of fat ie. Upto 25 % .rabbits do not digest fibre but extracts nutrients from fibrous feeds efficiently(caecum acting like a sieve) and high intake of forage and rapid passage.no response of sulphur supplementation in rabbit.copper deficiency—greying of fur due to no melanin synthesis.fibre prevents enteritis in rabbits.calcium absorption in human etc. is regulated by vit. D but uncontrolled in rabbit that is why urine is turbid due to excess of calcium salts.rabbits need all the essential amino acids.milk enterotoxemia leads to death of the entire otherwise healthy litter.enterotoxemia in a kindled doe leads to death due to high feed intake so, increase the feed gradually.decrease in appetite 2-4 days before kindling so give green to stimulate appetite.urea is not npn in rabbits like in ruminants,urea is toxic to rabbit.pressure bandage/ tourniquet should not be applied for more than 20 minutes.

Fur processing—skin after slaughter-dried in shade for 1-2 weeks(gamexene and salt polished in summer to avoid maggots and putrefaction)-dipped in saline solution/ brine having special detergent for 3 days-washed with soda and detergent and rinced 2-3 times with clean water-scrapping of inner fascia with hand –dipped in solution of nacl and acid ie. Tezab for 10 minutes and then chrome powder added to it ie. For 8 skins, 200 g chrome dissolved in 10 litres of water with 1-2 fists of nacl –kept as such for 24 hours ie. In chrome solution-washed and rinsed 2-3 times –dried in shade and air for 6 hours-polish of charbi ie. Animal fat on aubcut. Side-kept folded ie. Skin sides touching each other and woolen sides outer-dried in shade and air for 3-4 days –twisting ie. Marodana enough to make it soft-ready to make garments/caps.

Rye grass ie. Good hay for rabbits—sowing in September ,two cuttings of ful grown grass per year ie. One at march and one at june for hay making;in between cuttings of immature rye grass to supply green,perrineal ; once sown , lasts for 4-5 years.tall fescue—sowing in sept.-oct., multicut,perinial.rabbits has a strong territorial instinct.weaning stress is not due to separation from mother but separation from cage,adults can tolerate this stress more than young ,symptoms-no eating for 3-4 days.

MANUAL FOR INTERNSHIP PROGRAMME

Retinoscopy is done with retinoscope.treatment of eye problem—wash with boric acid(2% only) tid, wipping/ draining the excess water with cotton piece tid, gentamicin eye drops @ 2 drops tid in both eyes.ear canal flushing with hydrogen peroxide ie. 2 %.female pom brought to know the exact/correct time of mating—vaginal cytology done daily for 3 days; on first day-few parabasal cells ie. 25 % and majority of nonparabasal cells ie. 75 % neutrophils, 2nd day-parabasal cells decreased in number and few neutrophils,3rd day-no parabasal cells and 70 % disappearance of neutrophils and so advised for mating on that day.

TRIS extender—to make 850 ml-double distilled water=840 ml,tris=30.48 g, citric acid =17 g,fructose=12.5 g,streptomycin sulphate=1 g in 5 ml of d.d.w.,benzyl penicillin (g sodium salt)(5 lac i.u. in 5 ml d.d.w.)=2.5 ml;; to make 425 ml-d.d.w.=420 ml,tris=15.24 g, citric acid=8.5 g,fructose=6.25 g,streptomycin=1 g in 5 ml d.d.w.,benzyl penicillin(g sodium salt)(5 lac i.u. in 5 ml d.d.w.)=2.5 ml; ; note-from streptomycin sulphate and benzyl penicillin 2.5 ml each to put in extender;;to make 212.5 ml-ddw=210 ml,tris=7.62 g,citric acid =4.25 g,fructose=3.125 g,streptomycin sulphate=(1 g in 5 ml ddw)=1.25 ml,benzyl penicillin(g sodium salt)=5 lac i.u. in 5 ml ddw=1.25 ml;note – similar.semen extender—tris=74 parts,egg yolk=20 parts,glycerol=6 parts.how to dilute/extend a semen sample—(concentration in million/ ml x volume of semen in ml)/60 = total volume made after dilution with tris egg yolk buffer; eg. Bull no. j-16—volume

=4.5 ml and concentration is 2200 million/ml therefore volume of diluted semen=(2200 x 4.5) / 60 =165 ml,we make 150 ml to be on safe side;each straw=0.5 ml semen with concentration of 60 million / ml.identification strip along with the straws—eg. J 843-d 225-7/3/2000 ; this means that bull is jersey bull with no. 843,batch no. d 225 ie. On 225 th time the semen is being collected from this bull and on next collection from this bull,batch no. will be d 226 and so on.

MILK PLANT(CHAKKAR, MANDI)

General layout plan of the plant—milk collection tub and weighing tub-in weighing tub, milk brought from outside is collected and its outlet to collection tube is closed which has a sieve also to screen the milk, weighing tub has a pol on which weighing scale is attached,after weighing,it is poured into collection tub,its fat % and snf is measured, a fixed amount of skim milk powder is poured into a funnel at height connected to collection tub with a valve,amount of smp is such as to make the final mixed milk having standard fat % as 3 %; now the milk is recircled again and again to funnel from and to the collection tub with a motor to mix it thoroughly;from collection tub , milk is sent through pipe to raw milk storage tanks;from these tanks,milk goes to pasteurizer from where milk is sent back to pasteurized milk storage tank from where milk goes to packing machine which is functioning by pressure of compressed air produced by a compressor in separate room; during high voltage, packs are extra burnt during sealing so voltage control switch is adjusted;for this machine,all control switches are present;for temporary storage of unpacked pasteurized milk,pipe line coming from pasteurizer is connected to these tanks which are having insulated jacket so that temperature remains constant ;from here , milk is supplied to other milk plants as per demand within 12 hours through tankers.packets of milk are arranged into milk packet-trays with 24 packets in each tray 12 in each of the 2 compartments; these trays are stored in cold storage rooms ;these rooms are cooled by ammonia gas which is compressed with compressor and then flowed through pipes inside the room and so the temperature of the room falls down;water tank is situated inside another room which contains network of pipes through which liquid ammonia is flowing and is evaporated so heat is exchanged and water is cooled down; this water enters pasteurizer machine to cool down the milk;ammonia is brought inside large cylinders from outside places and poured to compressor.

Milk supply-8000 litres of milk is brought here daily from different milk sheds of villages; cans and trucks are sent daily for this purpose;30 paise per litre of milk collected is commission of chief villager who collects milk from one or more villages. Milk products-cheese,butter ,butter milk ,ghee,flavoured milk etc. are produced here.cheese—cheese vats are there inside which steam is flowing in jacket and controlled with valve so that milk temperature remains 70 degree celcius,now citric acid ie. Calculated amount is poured into it with constant stirring,cheese is put in modules and pressed into block with compressed air pressure;a cheese packet sealing machine is there which draws air out to produce vaccume and also seals the packets. Cream—pasteurized milk is sent to cream separator around which similar jacket is present having steam at pressure,cream lifts up through the pipe at top and goes to cream storage tank or linked to pasteurizer and then to storage tank; from here,cream is lifted manually to butter churner,toned milk comes through bottom outlet of cream separator.butter—in butter churner,butter is formed and buttermilk/lassi is drained out and butter is transferred to ghee making machine;raw butter is poured to a machine in jacket of which steam flows to create a high temperature; after prolonged boiling, ghee is separated;for making 250 g butter packs ,butter is poured into machine having screw type roller which removes water and so block of butter is produced in a mould from which it rolls outside on wooden rolling bars and cut into desired pieces by piercing wire on a plateform.butter milk / lassi is sold @ rs. 2/litre.ghee is taken out and packed inside 1 kg yellow coloured polybags.flavoured milk – it is sold in bottles of 200 ml and @ rs. 8 / litre,it is chilled for selling.

Milk plant chakkar—it is the unit of h.p. milk federation and it was started in 1969 as a part of dairy development in India and especially in this part of h.p. ;working of milking period starts from grass root level at village level to benefit the poor farmers; village cooperative society-to-

collection –to- milk chilling centres-to- milk plant then to milk products or milk packaging for consumption;activities of milk federation has been extremely good and aimed towards benefits of poor farmers who do not have any marketing facility for milk due to remote areas and difficult geographical terrains; at the same time,this plant helps the lot to deal with the milk requirement of arbanized area of mandi;there are two more plants like this in h.p. ie. Dhagwar in kangra and tutu in shimla.

About plant—

Modern plant with automatic functioning—1) arrival of milk 2)weighing of milk collected from different collection centres 3) filtering to remove extraneous materials 4) pasteurization – milk is heated to 84-85 degree celcius for 15 seconds and then cooled immediately 5) storage6) packaging ie. With automatic packing machine to pack in polybags 7) cip- unit 8) cheese manufacturing plant9) ghee manufacturing plant 10) butter manufacturing plant 11) laboratory-as soon as milk arrives ,tests are done like-fat %,snf %, acidity,cob ie. Clotting on boiling test.milk test—cob—take a sample of milk in test tube –heat- if clotted-spoiled; acidity-0.13 % is normal, mix sample and transfer with 10 ml pipette to each of two porcelin bags,prepare a blank by adding 1 ml of rosesilin acetate dye solution in one of the porceline bags containing 10 ml of milk, add 1 ml of phenolphthalein to 10 ml of blank observation—burette reading ie. Final reading – initial reading.determination of fat in milk—add 10 ml of gerber s h2so4 from automatic measuring pipette into butyrometer and pipette out 11.75 ml of mixed sample of milk and transfer it to butyrometer carefully without allowing it to mix,this is done by allowing the jet of milk from pipette to hit inside wall of butyrometer by holding pipette in slanting manner; with help of automatic pipette in slanting manner,add 1 ml of amyl alcohol in the butyrometer ,tighten the stopper ,mix the contents by shaking the butyrometer at an angle of 45 degree untill all the acid has been dissolved, keep the butyrometer in water bath at 65 degree celcius for 5 minutes ,then place butyrometer in centrifuge and balance it and then centrifuge for 5 minutes,adjust fat column with inside as butyrometer and take reading.

Nature park –kufri—barking deer—small in size ,found in Himalayan regeion,feeding done @ 1.5 kg / day which includes maize,cakes,wheat bran etc., these remain in groups mostly.himalayan thar ie. Jungle goat-fed @ 2.5 kg/ day with conc. Feed.gurel; snow leopard – fed @ 2.5 kg meat/ day,crescent shaped markes over whole of body; sambher-life span is 20- 25 years,gestation period=9 months,horns are shed every year and new horns appear every year in summer; musk deer-male deer has musk glands and also has a pair of canines which are visible out side the mouth when mouth is closed,mating in such anikals occure during full moon,called locally as mushka nafa; jungle cat—sanguivouous ie. Blood sucking habit,other name may be civet cat; black beer and brown beer-they relish gud,has got v-shaped white mark area on chest.different birds which were observed—red jungle fowl,monal-greenish-reddish colouration of comb and head;pheasants ie. Kalij etc.faecal samples of all these animals were also collected to note down the parasitic load in such animals and also for Chlamydia isolation in s.p.g. medium.

During retun to shimla,we visited institute of hotel management at kufri where a short lecture regarding various meat and meat products;milk and milk products were given which were quite knowledgeable and tips to identify the fresh meat in markete were given for purchase,about their self life etc. were taught to us; that hotel was a hotel management institute and 3 years diploma in hotel management is provided their in,they told that raw meat ie. Packed in case of mutton ,pork etc. and whole carcase in poultry is stored frozen in deep freezer as such for months together but meat once brought to the kitchen can only be stored for 2 days in deep freezer;on evening of second day if not sold / consumed by visitors is thrown away or supplied to different low grade institutes,the rate of coocked food is kept 5-10 times more than that of original cost to compensate for the losses during discarding it and storage losses etc;different cooking systems like simmering,boiling,frying etc.practiced;raw fish is inspected for gill rot etc ie. Gill should be pink not deep red and there should be no mycotic or bacterial growths on body parts.

Backery visit—

Vets diary

Visited the backery located near by thr vety. Hospital shimla , observed there different types of processings such as moulding the flour mixed with egg contents ,flavours,preservatives etc. in different shapes of moulds and then baking inside coal – heated furnace or hot air ovan for required time ,we also observed packing thereafter such as that of buiscuits , breads etc.

Poultry farm---

Watering and feeding of poultry ie. 12-13 months age—at 9 am and 3 pm. Collection of eggs-4 times a day ie. At 9 am,12:30 pm, 3 pm and 5 pm.daily schedule—1) first of all, racking of litter is done with removal of hard lumps and replacement with new saw-dust2) then breaking fine lumps and leveling of saw dust.3)removal of poultry litter from different premices by sprinkling saw dust and with help of a groom 4) now,water bowels ie. Of plastic are cleaned with water by rubbing with mop (but with vim detergent weekly) and then filled with water.5)feeders are emptied and filled with fresh feed (washed weekly with potassium permanganate lotion and sterilized with blow lamp before the start of each fresh batch) 6) racking is done twice daily in broilers and once in eggers 7)removal of hard faecal – crust from nails of poultry ie. Called ghunguru locally.

Hatchery—1) eggs brought from farm are stored daily in cooler after cleaning and fumigation upto a week and then transferred to incubator for 18 days;on 19 th day in morning at 4 pm ,transferred to hatcher ;newely hatched chicks are removed at 5 a.m. on 21 th day and transferred to chick- boxes; 2)broilers are vaccinated against marex disease ,eggs are sexed ,females are vaccinated against m.d. ie. 0.2 ml each doze and males are destroyed;3)hatcher is washed after brooming on first day,washed first with kohrsolin – th and then with clean water on the second day;4) on third day, blown with blow lamp; 5) hatcher is kept free for one week.docking of a pup----pup fasted overnight; app. Weight of pup=2 kg;0.08 mg of atropine sulphate given sub cut.; after 10 minutes,2 mg of xylaxin and 10 mg of ketamin administered i.m.no effect observed within 5 minutes(normally effects come within 2 minutes) ; another shot of same doze was given,no effect within 5 minutes;3rd shot of same doze given ,effect was observed;tourniquet applied at base of tail;two v-shaped flaps of skin were made on dorsal and ventral surface;berore it, position of intervertebral junction noted by inserting a hypodermic needle through and through;than tips of flap made just anterior to hypodermic needle;now needle removed and skin flaps dissected back wards; now needle again was inserted and two lateral and one ventral blood vessels were ligated; now , bone cut at site of needle ;blood mopped and skin flaps sutured.

Gestation periods----poultry=21 days,rabbit=1 month 1 day,bitch=2 month 2 days,goat and sheep=5 month 5 days,cow=9 month 9 days,buffalow=10 month 10 days,horse=11 month 11 days.

Artificial induction of lactation—oestrogen @ 10 mg/kg and progesterone @ 20 mg/kg daily for 10 days,prednisolone @ 100 mg daily for subsequent 3 days;start milking since this day onwards , slowely cow will come to ful production.

Recurrent tympany—give nervine tonic ie. Like neurobione @ 10 ml to cow daily for 7 days ,vagus indigestion will be corrected;if above treatment fails,it is diaphragmatic hernia.

Vetalog ie. Triamcinolone acetonide infused intrarticularly is very nuch potent than dexona in lameness etc. and is best anti-inflammatory drug.

During anorexia after surgical operation,hypothalamus is depressed,may be due to fatty acid deficiency;so , supplementation of fatty acid i/v may be helpful.blood coming out of teats may be because of streptococcal infection so amoxicillin as intramammary and penicillin i/m is helpful.in gangrenous mastitis,vetemast i./mammary and enroflozacin is effective if repeated after 48 hours and powder masticare @ 30 g daily having lactobacillus etc.

Corneal rupture—tried to suture cornea with catgut no. 1-0 in threaded / eyeless needle;next day,anucleation done by giving retrobulbar block at 3 points ie. Lateral and central of lower eyelid / eyeball region with curved needle; attachment of eyeball removed from orbit and then

optic chord ligated and transfixed two times from 2 sides then cut above ligature, subcut. Sutures applied,eyelid margins freshened and sutured.daily asd and streptomycin injection.
Tail docking done—posterior epidural ie. Sacrococcygeal and ring block;both lateral and one ventral arteries ligated and tourniquet at tail base applied;flaps of skin retracted back and tail was cut from inter vertebral space below the ligatures; now skin flaps sutured together,daily asd and antibiotics for 5 days advised.
Cream poso wart should be applied on warts after smearing the surrounding area with Vaseline to save it.
Milk buckets / containers are washed with washing soda and then rinsed with potassium permanganate lotion.udders are washed thoroughly with p.p. lotion before and after each milking.concetrate ration is fed ad. Lib. At time of each milking.
Mustard cake-yellowish and smell of mustard,cottonseed cake-black,ground nut cake-reddish and smell of ground nut.
Treatment register—
Date animal no. lactation diagnosi treat

A.I. register—
Date animal no. in heat lactation straw us

Pregnancy diagnosis register—
Date animal no. lactation diagnosis

Labrour s record register—
Date no.of dpl on duty nameabsent no.perm na

Labrours personal performance register—
Date name of per.labror performance name dpl per

Performance graded as - +4,+3 etc.
Complaint book—
Field register—

Date cultivated land sowed land irrigated

Harvested fertilized land(ha, bigha etc.)
Milking record register—
Eg. Shed no. 21
Cow no. quantity of milk in kg
Morning evening

Concentrate register—only used for lactating cows
Date cow no. quant. Of conc. Fed total
Morning evening
Roughage register—
Date shed no. no. of animals quantity of

Dry fodder fed quan.of green fodder fed total
Berseem only grows in summer and winter; field is ploughed thoroughly and then half of the total calculated doze of fertilizer and fym is sprinkled and then it is levilled ;seeds of berseem are then sprinkled uniformly over it;1 week after germination,first irrigation is done then repeated every week in summer and after 2-3 weeks in winter;it comes to harvesting stage at about 1.5 months

and then 2-3 cuts can be obtained at an interval of 1-2 months;fertilizer and fym can be added along with irrigation after each cut.oat is rabi crop, it is sown at the time of wheat sowing,3-4 cuts can be obtained ,basic procedure for raising is similar to berseem
. hay is made by the drying of the bundles of grassin the sun; drying should be such that no extra moisture remains in the grass and there is no shedding of leaves;it is prevented from exposure to rain and excessive air drafts; it is stored in heaps and covered with coarse straw for easy drainage of rain water because it is made sloppy all around ; it can be stored inside water proof houses.silage is made by harwesting the lush green forage; pit silo is most commonly used. A pit is made and it is painted with dung – slurry and dried; then covered with poly thene all around; green grass is mixed with molasses and is filled inside the pit; it is compressed completely to exclude all air; then cover with straw on top and then polythene and paint with dung ; now put soil over it; avoid entry of water into it; favourable temp. inside is 40 degree celcius; silage becomes ready within 1- 1.5 months.
treatments adopted—against ibd—arsenical @ 5 ml / 100 birds of 100 strength daily,recommended is croton; against m.d-potassium iodide 1 g/100 birds daily or a.d.

Egger parent stock—

Age	feed in g
0-1 week	15 g
1-4	30
4-8	50
8-12	70
12-16	110
16 and above	130
21 and above	140 g

Broiler parent stock

Age	feed quantity
0-1 week	20 g
1-4	40
4-8	60
8-12	120
12-16	140
16-20	150
21 and above	160

Inspection of different sheds of farm—
1-shed for brooding chicks
2-shed for broioers upto marketing stage
3-shed for layers upto 18 weeks
4-shed for layers after 18 weeks for laying period.
Inspection of diseased birds—
1-few birds were lame so that unable to rise for long after fall on ground
2-some birds were showing paralysis of feathers along with paralysis of limbs
3-some birds had staggering gait and incoordination in movement
Disease was diagnosed as m.d.
Post mortem of dead birds—
1-bursa of fabricius was showing minute haemorrhages in muscles
3-haemorrhages in kidney
Disease was diagnosed as i.b.d.
Poultry birds were although vaccinated against ibd and md. The deisease is supposed be due to a new variant strain ovirus.
Poultry farm at palampur----

Vets diary

Daily feeding schedule per bird—
Egger stock commercial-

Age	feed in g
0-1	10
1-4	25
4-8	50
8-12	60
12-16	80
16-20	110
21 amd above	120

Broiler commercial---

0-1	15
1-2	20
2-3	30
3-4	50
4-5	60
5-6	75
6-7	90

Dewomering is done monthly with piperazine and nilverm. Coccidiostats are given prophylactically at 3-4 weeks particularly amprolium salts.
Timings of farm—in summer- morning-8 am to 12 pm, evening-2.30 pm to 5 pm; winter-morning-8.30 to 12.30 pm, evening-2.30-5 pm.
Types of birds kept—layers and broilers.
No. of layers=345,no. of broilers=275. housing system-deep litter. No. of sheds=12.dimension of shed=18 feet x 8 feet.width of central walk=5 feet.daily worming schedule—farm open at 9 am,feed troughs are made clean and feed is poured into them.then watering of birds is done by filling water bowel upto top and inverting it on to an empty plat. Live -52,amprolium etc. is mixed in water after calculation on per 100 birds basis.dead birds are removed and sent for p.m.1-2 p.m is lunch; after 2 pm, other accessory works eg. Debeaking, preparation of feed etc. are perfprmed.chicks are are brought to this farm from central hatchery nahan and hatchery at sundernagar ie. Layer/ egger from sundernagar and broilers from nahan.after , they reach at palampur, they are kept off feed for 36-48 hours otherwise it has been found that there are more chances of yolk sac infection leading to mushy chink disease carsed by e.coli.off feeding will hilp chicks to utlize their yolk from yolk sac thus preventing the chances of retention of yolk and hence the desease;during this period, they are kept only on water.general inspection of birds----
Some of the layer birds wre showing lameness and were moving on the ground with one leg forward and other backward with trembling gait and were unable to progress forwards and were dyin slowely, paralysis of wings also; on p.m. exxamingation-found positive for m.d. ie. P.m. findings-schistic and brachial nerves were enlarged 2-4 times than normal; on h.p. examination of bisceral organs revealed pleomorphic lymphocytes were found indicative of m.d.; few cases of i.b.d. have also been identified in this farm.

Vaccination schedule of farm –
1)vaccination is done against ibd, rd, md and fowl pox; r.d.—day old chicks-2 drops intranasal ie. F1 strain;ibd—Georgia strain at 3-4 weeks and than at 13-14 weeks,2 drops in drinking water; m.d.—day old chicks-hvt strain,0.2 ml s/c , life long immunity; fowl pox-- bm strain- at 3-4 weeks ie. 0.2 ml s/c then at 13-14 weeks.layers--- f1 strain and m.d. at day old age , r 2 b at 6-8 weeks,fowl pox at 8-10 weeks, ibd at 1-2 weeks and then repeat at-------
Brooding pen should be completely cleaned and disinfected.day old chicks are brought inside, a hover type alumenium made brooder is used inside which electric bulbs are fitted,saw dust etc is

sprinkled on the floor as bedding which should be 3-4 inches thick, the temperature should be adjusted such that at margin of hover it should be 98 degree foreignheight ie. 33 degree celcius at level of 1-2 inches height from the base/floor in the first week of life, it should be decreased by 2.5 degree celcius each week till 21 degree celcius or till till the room temperature is attained ,trmp. Og 21 degree celcius is ideal during growing, with electric hover, 60 square meter / chick is space required, within 4-8 weeks,460 square cm / chick is needd; 23 hour photoperiod and one hour darkness during brooding is advantageous; vaccination against ncd and md are done at day old age of brooding; debeaking is done at end of 4th week.

Brooding-----proper ventilation / cross ventilation is essential to prevent coccidiosis etc, brooder house should be away and isolated from other poultry houses with minimum distance of 100 meters, brooder house should be scrubbed ,cleaned and disinfected a week before chicks arrival and allowed to dry; ground maize cob,saw-dust,dried crushed sugar cane pulp etc. make good litter and it should be 2-4 inches deep; temperature under brooder should be slightly more than 35 degree celcius when thermometer bulb is one inch above litter at edge of hover;corners of small brooder room should be rounded of to prevent piling up in the corners; chick guard of 15 cm height should be used at distance of 30-40 cm from brooder depending on weather and should be moved away further every day ; it may be completely removed after a week.

For layers---- deep litter is scrapped out and removed ; floors , nests and walls upto mid height are washed with water and then with 5 % phenyl,after drying ,lime painting is done on the walls; old gunny bags are removed from the windows and new ones (washed and disinfected) are attached there;all fittings and equipments are repaired.

For broilers—

Deep litter is gathered in heap inside the pen and lime and phenyl is mixed to it properly, then it is spread on the floor,walls are white washed,wire nettings of windows are cleaned with phenyl using a paint – brush,old gunny bags are removed and replaced with new clean and disinfected ones,central walk passages also cleaned with phenyl.

Floor space requirement per bird----

Age(weeks)--floor space per bird in cm square for light breed and heavy breed-----0-8--700 and 700,9-18—950 and 950,18-20—1900 and 2350,21 and above—2300-2800 and 2800-3700.

Feeder and watering space requirem—contd.

Judjing for selection or culling of chicken—

Body part	layers
Comb and wattles	large,red,glossy,warm And ful
Eye	bright

Vent -large,dilated,oval and moist,pubic bones—2-5 fingers spread between keel and pubic bones,abdomen-enlarged ,soft and pliable;skin-soft ,thin, loose and silky

Body parts-non layers=eyes-dull; comb and wattles-small,pale,dry,shrunken,scaly and cold; vent-small,contracted,round and dry;pubic bones-less than 2 fingers spread;abdomen-contracted , hard and fatty; skin-thick,dry,underlaid with fat.

Night culling is desirable if more than 10-15 % birds are to be removed.items required for culling are a wire corral or gate to corner the birds,a culling coop or catching crate to hold the discarded birds and a wire catching hook to catch the birds;poor producing birds are separated from the fock and kept isolated in the culling pen,those are marketed then as per need.a poor layer will be overactive,comb will be pale / shrunken and misshaped ,wattles will be of bad appearance ,it will have less femine character,vent will be dry and small and less rounded ,less angular body etc.good layer will be having femine character ,attractive combs and wattles bright red and well developed , vent will be moist oval and large ,more angular body.

Some tips to improve the economic return from a layer farm—there should be frequent culling and slaughtering of poor laying and non laying birds.there is more profit in broiler production as compared to layer production.

Vets diary

For maximum return—deep litter system is beneficial,warm temperature/ environment gives more production,dressed broiler should be marketed,defferent body parts of bird should have different packing with different price rates,meat packets should be sterilized properly for long duration storage,total in and total out system should be followed with single age group at one time, foot dips filled with antiseptic solution is necessary, feather – meals,blood meal etc. should be prepared from wasting by products.various stock books and registers are maintained at the poultry farm—1) register for noting how much feed is in balance,how much was prepared and what was total at that day;2)register for different ingredients with information of balance ingredients,new purcahased ,total and supplied for manufacturing of feed,present rates of ingredients are also recorded time to time in this register;3) a treatment register; 4)a vaccination register;5)a farm operations register;6)a egg production and marketing register; 7)a broiler production and marketing register; 8) a farm equipment purchase etc.,farm- electric register.

SHEEP FARM- NAGWAIN----

Nagawain farm has conductive agroclimatic condition and natural endocoments an d provide ample scope and potential for rearing sheep in this area; the total sheep population in h.p. is as sper 1992 census 1074345 as compared to 913918 in 1956.from this above value ,it seems that there is a supply of sheep breed like rambouvillet ,soviet merino,polimorth hoggets and rams to progressive sheep breeders in the Pradesh to improve the quality and quantity of wool of indigenous sheep breeds viz. gaddi and rampur bushahari.around 500 male hoggets are given to sheep breeders every year for breeding purpose which becomes 15 % of total cross bred sheep population.aims and objectives for opening a ram centre---sheep breeders who mainly come from the weaker sections of the society are to be provided with increased opportunity to improve their income; to improve the genetic potential of sheep population for improved productivety; to establish sheep breeding as a commercially usably livestock industry In the state;to provide ancillary services like health care,training rams of breedable age and extension facility; to produce superior wool in large quantity; to increase the contribution of sheep husbandry sector as a critical source of income to state.location—it is proposed to convert the existing breeding farm nagwain district mandi ento a ram centre with 200 rams ,stall should be mde available for this ram centre from the existing sheep breeding farms of department.establishment of the extension centre and extension activitees—the wool produced have adequate staple length is required by the woolen industry,the 5 proposed sheep and wool extension centres shall be located at-sangla,jari in distt. Lahoul spiti, udaypur in lahul spiti,bharmour,suranpur ie. Area panchayat bharmour.ram sheds to house 30 rams-200 square meter along with staff quarters required to be constructed at patlikuhl of kullu, kandwari distt. Kangra.distt. wise sheep population as under census of 1992----bilaspur-24615,chamba-258490,hamirpur-49498,kangra-155432,kinnour-57720, kullu-100835,lahul spiti-42766,mandi-196041,shimla-126531,sirmour-27616,solan-19713,una-6008,total=1074345.deworming –since this centre is containing rams used for breeding purpose for improvement of local sheep breeds so the animal should be healthy and free from worm load.dewouming of ram is done after every 30 daysinterval;this time ,deworming was done by closental ie. 15 % oral solution as zycloz of agrovet cadila health care; dosage of closental—sheep and goat- 1 ml/15 kg body weight for fasciola spp. And 1 ml/ 20 kg body weight for other endo and ectoparasites;each ml has closental=150 mg and @ 10 mg / kg.dipping for control of ectoparasites—dipping of rams for saving them from ectoparasites is done at every 2 months interval ; dipping is done with butox @ 1ml / litre ie. 1 litre in 1000 litre of water tank; before dipping , they are given adequate drinking water;after dipping , they are kept in sunshine for drying.housing—house for rams ia of concrete ; floring is wooden slits with 2 inch wide frames and spaces in between of half inch width for droppings to pass and to be collectd in under floor store for use in future;ventilation and enterance is north to south wards; dip is at the south end of the house.house is provided with wooden ceilig ie. Card board type . hay racks are provided inside for feeding and feeding troughs outside the house.watering troughs are outside the house at north side . conc. Feed troughs u- shaped long channels ie. 4 inches long and 1 inch wide resting

on > shape stands on both ends , these are portabkle .mangers are also on floor along length of partition about 2 inch wide.housing space is 100 feet into 30 feet for 200 rams ie. 15 square feet per ram. There are 4 partitions at 25 feet length interval . 50 rams are housed in this space of 25 feet x 30 feet . partitions are about 4 inch hight and made of wooden frames with space in between and a door inside each partition.

Routine work—summer-1- rams are left out for grazing at 7 am 9 am in the morning and brought back to at 11 am and kept housed between 11 am upto 1 pm and then again brought to Pasteur upto 5 pm and brought and brought back at 5 pm and then onward kept inside upto next morning . 2- in the mean time when the ram are grasing , cleaning of house is done.3- conc. Feeding @ 400 g / ram / day in two divided dozes ie. Morning and evening.

Winter=== 1- rams are left out for grazing at 9 am in morning upto 1 pm and then housed back ,again left to grazing at 3 pm to 5 pm ; 2- rsst of schedule is like summer;3- dipping every 2 months interval ,dewoeming at evetry 1 month interval , vaccination is carried out against fmd only at every 6 months interval .various medicines used at farm---- albendazole suspension,oxyclozanide ,triclamar,ivermectin oral, disinfection—kohrsolin- th is broad spectrum ,bactericidal,sporicidal,fungicidal,tuberculocidal,virucidal;used for regular disinfection at doze of 500 ml in 50 litre water- wet surfaces and mop or low pressure sprayer for contact period of 30 minutes.

Sanitation of water for rams—it is carried out with sokeena – ws and is very effective to prevent water born infections of bbaccterial and fungal origin and reduces chances of veral born infections, dosage- 1 ml of sokeena- ws in 10 litres of drinking water or 5000 ml in 5000 litres daily; each 100 ml contains didecyl methyl ammonium chloride= 1 g. bacteria killed—salmonella, pasterella , haemophilus, e. coli.

General inspection of layout plan of the rabbit farm and other accessories like cages,feeders,waterers, feed stores,laboratory,shearing room etc; watering is done at 9:30 AM along with neccessory medication mixed in water ,cleaning of bottles heavily infested with planktons using nirma posder ,bottttttl e, brush and condys lotion;feeding of rabbits is done at 11 o clock ; necessiry medical services to sick rabbits are povided from 11.30 to 1 pm;lunch break is given from 1 to 2 pm ; watering at 9.30 am ,4 buckets of 75 litres each were filled with tape water for 200 rabbits and 20 ml of liv 52 was added to each bucket ,300 ml of medicated water was used for each rabbit; then flushing of the ears of the affected rabbit with 2 % h2o2 and then asd with betadine and application of chloromyceftin ear drops ,similarly asd with betadine at alopetic sites and application of charmil cream ;dependal at doze 1/ 2 tablet and neblone 1 g given to rabbits affected with diarrhea. Clipping of hairs matted with faeces.injection ivermectin – 0.1 ml per rabbit against suspected mange.feeding rabbits each with 80-120 g of palleted feed.

Breeding in rabbit-female was brought into the cage of male ,lardosis posture of female is self occurring if she is in heat ie. She raises her hind quarter and allows male to mount her;after successful mating, the male makes a cry and falls down suddenly ;all females are tried daily .males having good libido ,large testicles and good body characters are choosen for breeding.drugs for rabbitoryyy—hydrogen peroxide 400 ml rs. 18 ,rabbit pellets of hindostan lever limited are best and easily available, gentamicin and penicillins are harmful to rabbits, best antibioitics for rabbits are quinolones.

Special points to remember during rabbit farming—vantillation is highly essential for which half upper wall can be made of wire guage, kachcha floor is better in the sense that it absorbs urine etc. and reduces moisture / humidity of air but chances of infection can be there in this;slope of floor upon which droppings and urine fall and also slope of drains should be optimum for easy flow of urine etc.; cages,waterers , feeders, and bottles should be washed at every fortnight interval; cages, feeders, waterers are heat disinfected by using blowers ie. Stove system; bottles are rinsed with condys lotion after washing with detergent.features of angora rabbit—at 5-6 months able to breed; useful age from economic point of view= 4 years;male to female ratio= 1 to 4; gestation period= 30 days; no. of parturitions per year= 5 or 6; average litter= 6 kits; annual

wool production=800-1000 g; price rate of wool=700 rs/ kg; dimension of cages—for breeding=60x60x35 cm, for youngs and wool producers=60x40x 35, nest nbox=36x36x30 cm;required climate and temperature—temp.=7-28 degree celcius(best=20), relative humidity=less than 70 %.female rabbits if not if not properly nourished with feed and water can eat its offsprings. Female rabbit is brought into the cage of male rabbit.nest is kept inside the cage at 25th day of mating,coconut fibres should be kept inside to make cushin by her. At 29-30th day oxytocin can be injected for induced parturition. Weaning is done at 3-4 weeks after kindling in which female is removed and kept in separate cage.kits are remained together for 3-4 weeks and afterwards separate cage is provided for each kit. Feed formula of angora—maize=40 %, groundnut cake=25 %, rice broken/ chura=28, molasses=4, mineral mixture=1.5, vitamin premix= 0.5 %,salt =1 %.feeding of angora---- an adult rabbit eats 2-3 times in a day and more eating at sunset and before sunrise; daily feed intake of an adult rabbit=160 g, daily feed intake of pregnant and milking doe=260 g . feed intake reduces/ increases with increase/ decrease in temperature.one adult rabbit drinks 350 ml water daily.rabbit feed ie. Parts per kg feed—protein ie. C.p.=15-17 %, fibre ie. C.f.=14 %, fat= 2 %, tdn= 600 g, digestive energy=2600 kilocalory,minerals= 1.7 %,vitamins- a=6000-8000 i.u.,e=20-40 mg, d=600-800 i.u.,k=2 mg, choline=1500 mg, niacin=500 mg, biotin=25 mg, ppyridoxine=300 mg, aminoacids-lysine=1 %, arginine=0.6 %, mithionine and cystine=0.7 %. One week before weaning,female is put into cage of male for mating.greens like zai, oat etc. are provided in the morning and pelles in the evening ,greens are tied in the wire of cage from top which is eaten by rabbit. No sudden change in feeding is to be done. Rabbits need sixteen hours light so arrangement of tube light or bulb should be done.removal of feeders from cages and emptying its feed pellets into a bag for reuse and removing out the powdered feed into drain. Washing of feeders and waterers in the bucket containing detergent dissolved in water then blowing with blow lamp to dry and fix as were earlier.washing of bottles and fixing them as already after filling with water.mass medication of rabbits is done in drinking water,injectables are not preferred, for single rabbit medicine is dropped with syringe into waterer. Sexing of rabbits is done at 1-2 weeks of age. Regular removal of ear crusts is important to avoid infection.as far as possible,avoid mishandling the rabbit and examine them for health,ailment etc. from outside.do not make noise inside the rabbit farm.foot bath—dip of phenyl is essential at enterance door for disinfection. Rabbit farm should be easily accessible to road but away from crowding and markete etc.

FISH FARM MANAGEMENT

Preparations of ponds—water is drained out of pond,pond is dried in sun ,manure is sprinkled and then left as such for 15 days;on 16th day white lime is sprinlkled and then pond is filled up with water, rate of lime is 250 kg/ha.liming—optimum ph is 6.5-8.5,liming is done to eradicate harmful insects,microbes and to provide calcium to growing fish and keep water ph alkaline,alkaline ph increases growth of phytoplanktons.manuring—to enhance growth of zoo and phytoplanktons ; two types-organic-increases growth of phytoplanktons,inorganic-incresase growth of zooplanktons ;here fym is used at rate 2 kg /m2 area . atocking –in our farm ie. Hpkv,semiintensive system is used ;so 15000 fingerlings / hectare water is used ;in composite fish farming comman carp, grass carp and silver carp are used in ratio of 3 to 2 to 1.determination of feed and feeding schedule—feeding is done at rate 2 % of body weight but feeding depends upon water temperature,size of fish and depth;usually during ferst month if the temp. is more than 20 degree celcius ,the feed is given at 6 % but reduces in 2nd and third month ;upto 30 degree celcius ,feeding efficiency increases but decreases thereafter; below 5 degree, feeding efficiency decreases.zoonotic diseases of fishes—if 1 ml of watrer contains 10 to power 4 bacteria then it will penetrate fish muscles which has serious p.h. consenquences ; bacteria like e. coli, enterobacter , salmonella cloacae are

Found in fishes harvested from sewage polluted water.salmonellosis-salmonella in fresh water / marine fish normally associated with faecal contamination of water with salmonella and shigella are found in fish taken from highly polluted water, salmonella typhae and s. paratyphae can cause

typhoid and paratyphoid fever and septicaemia in human body; Edward siella tarda—gastroenteritis,endocardditis, meningitis, and uti in human ,mainly found in cat fish; aeromonas hydrophilla-causes human gastroenteritis and eus ie. Epizootic ulcerative syndrome;clostridium botulinum-causes human botulism ,reported from denmark,found mainly in trout;cl. Perfringens-found in polluted water ,causes food poisoning and diarrhea, if yellow / green fluid-vibriosis.
4 f formula in fishery ie. Fixed- quantity,fixed – ingredients,fixed- time, fixed- place.dissolved oxygen ie.d.o.—for carp, it should be 5 to 12 mg/l; for cold water fish,8-14; so cold water fishes are reared in runnig water which decreases temperature of water and also fresh oxygen gets dissolved,also drop the water in pond from height so that oxygen mixes properly.water analysis – is done for-temperature, ph, d.o., to monitor productivity of water body and growth of fish,these parameters should be monitored weekly to maintain growth of fish.upto 20 degree celcius,maximum oxygen saturation is there,thereafter it decreases; above 20 degree celcius, max. o2 dissolved starts decreasing; below 10 degree,saturation is less; at our farm, temp. varies from 10 to 30 degree;best temp. for growth of carp is 17 to 25 degree;for cold water fish eg rain bow trout the best temp. is 10- 15 degree but can survive in 5-15 degree.ph—it was measured ph meter; alkaline ph is best for growth, optimum ph is 6.5-8.5 ,acidic ph affects growth and breeding of fish and fish can not tolerate below 4 and above 9 ;if acidic water,then liming is done at rate 25 g/ m2 of water area; in alkaline and sandy soil, no liming is done.
Fish diseases----fungal—saprolegniasis ie. Water mould disease-hyphae penetrate upto dermis,treatment-3% nacl or 5ppm kmno4 or 5% formaline for 3-5 minutes,method-dip/ bath/ injection (at base of dorsal fin)or below lateral line at caudal region; gil rot ie. Brachiomycis-mostly occurs at higher temperature with low water level and due to pollution;; bacteria diseases—ulcers- small wounds over the body ,falling of scales and the wound deepens so that muscles get exposed and death occurs,yersinia-enterocolitica- causes gastroenteritis ,appendicitis, arthritis and septicaemia etc., vibrio sp.-pathogenic to humans,v. hollisae- isolated from cat fish ,causes food born illness,kangawa positive,vibrio also haemolyses human rbcs,v. cholera- causes cholera, fin and tail rot – appearance of white line at margin of fin ;after some time, fin becomes fragile and well shed off so fish will die,caused by aeromonas spp.dropsy-only in golden carp ,accumulation of fluid in body cavity leading to abnormal swimming on palpation,hard to palpate.
Breeding time—end of march-golden carp, mid of april-comman carp.breeding of carps—two males and 1 female fish was put inside the breeding happa ie. In its inner compartment which was fixed inside pond filled with water using stones as sink and tying its lead ropes with khoontian , hydrilla or biuns tree branches were put inside and then left as such fasted for one night , next day these twigs were removed and kept in hatching happa; in our farm , breeding of comman carp and golden carp is done however below 20 degree celcius ,fish will not breed.
Selection and segregation of breeder---- selection out of adult breeding stock; qulalities of good breeders—large body size,thick seminal discharge in more quantity without any stain but white in colour ,fertility should be high;female should be large insize with abundant no. of eggs and with grayish colour, fecundity and fertility should be high,in real selection of fish is done from finger ling stage , fast growing with normal health and witout any scars on body is selected and is given proper diet upto maturing.
Segregation—done on first week of march,necessary to prevent chasing of male to female and so to get maximum of eggs and prevent injuries to fishes.
Estimation of fecundity—absolute fecundity=no. of eggs in ovary / kg ,relative fecundity=no. of eggs released / kg;initial average body weight before breeding= x g,final average body weight after breeding=yg,loss in body weight= x- y g= 102 g; 80 % of this loss is assumed to be voided in form of eggs,rest is due to excreta etc.,so body weight lost in form of eggs=80/100 into 102 =81.6 g, so 1. 6 g of eggs have= 446 no. of eggs so 81.6 g will have =446/ 1.6 into 81.6 =22746 eggs/ average size fish ie. 700 g fish has eggs=22746 so 1000 g fish will have eggs= 22746/ 700 into 1000 = 32449.4 eggs/kg fish.

Vets diary

Estimation of fertilization—weight of fertilized eggs=1 g ,weight of unfertilized eggs=0.6 g ,total weight of all eggs=1.6 g ,percentage of fertilization on weight basis=1/1.6 into 100 =62.5 % ,transparent eggs are fertilized and opaque are unfertilized.no. of fertilized eggs=377 , no. of unfertilized eggs= 69 , total no. of eggs=446; percentage of fertilization on no. basis=377/ 446 into 100= 84.5 %;average percentage of fertilization=73.51 %.feeding schedule is related with water temperature, it increases with increase intemperature,here schedule feeding is 2 % of total body weight;feeding should be done with hand,it is preferred over demand feeder of automatic feeder;with hand amount of feed can be regulated and also fishes can be checked for ant abnormality ,hand feeding is done 3 times daily;in small fish ,done after every 3 hours ;start feeding of fry stage at rate 6-8 % of body weight,2-3 % of body weight for finger lings. 2 % from march- may,3 % may to august,2 % sept. to October,1 % in November.from December to February, they do not take feed due to low temperature ie. Less than 15 degree celcius,fingerlings feed thrice daily, breeders feed twice daily.

Carp—sh. Be provided 35-40% protein rich feed ,fingerlings and breeders are geven 30 % protein feed.

Trout—fries-60 % protein,fingerlings-40-50 , growing stage-30-40, trouts are carnivorous.

When grass carp is stocked ,aquatic grasses such as duck weed , hydrilla, or chopped terrestrial grasses are provided in required quantities at rate 50 % of body weight as food.

Fish disease diagnosis—it can be done by physical examination of fish/ or by observing the fish from a distance under natural conditions;diseased fish will show—it will be isolated and dull and will swim at top of water,abnormal swimming with rough and shedding of scales ,eyes sunken and it will rub its body against hard objects.prevention of fish diseases—by disinfecting the tank once in a month either by kmno4 or lime etc.

LIVESTOCK PRODUCT AND TECHNOLOGY----------

Cheese making—heated the milk upto 90 degree celcius with constant stirring,filtered it through fine cloth to remove burnt crusts,now added citric acid solution of strength 12 g per 100 g milk and mixed at once for even distribution; if clots are smaller then again add some citric acid with stirring until large clots appear;now keep it undisturbed for 2-3 minutes ,filter it through cloth ,squeeze the cloth to remove all the whey and press it on/ near wash basin with a metal plate to remove whey and keep a weight over it; after 15-20 minutes , dip the cheese pat in cold tape water for 10 minutes ;then transfer it to the 5 % comman salt solution and keep there dipped in for 15 minutes;now deep freeze it / keep in deep freezer chamber of refrigerator.

ANIMAL NUTRITION—

Priority areas of research in animal nutrition—1) improvement of natural grass lands / pasteurs by foliar application of urea, micronutrients,plant growth stimulants and by introducing improved species of legumes,grasses, and fodder trees for enhanced livestock production in the state.

2-development of complete feed systems by using fallen tree leaves,crop residues, and local grass hay

3-formulation of economic milk replacer from locally available feeds for prerumenant calves

4-formulation of specific mineral supplements and and multinutrient licks for growing calves,heifers,lactating cows ,grazing sheep and goats.

5- use of biotechnological tools for enhancing milk , egg, and meat production.

6- determining the nutrient requirements of angora rabbits, zersey, cross bred and other economic species of animals relevant to different agroclimatic zones of the state.

Salient research achievements—

Nutrient requirements-

-gaddi goats can be economically reared by feeding higher energy ie. 115% than recommended by nrc-1977;

-gaddi sheep can be reared as per nutritional recommendions of arc;

-broiler rabbits can be reared on higher planes of nutrition than the recommendations of nrc-1977;

-trouts can be economically reared on fish meal based palleted feeds.

Vets diary

Utilization of by products and wastematerials—
Kaenth- fruit meal (pyrus pashia),wild esebgoal plant meal ie. Plantago lenceolata,silk worm pupae, malt sprouts, water cress plant meal ie. Nasturtium officinale and amlora leaf meal ie. Rumex hestatus are suitable for poultry as substitutes at 10-15 % level for maize ,gnc,rice bran etc.
-apple pomace and kaenth fruit meal is suitable replacement for maize upto 33 % levels for cattle.
-kikua and white clover hay,suitable for broiler rabbits.
Biostimulants—
-novozyme sp-243 and poultry farmore are most economical at rae 15 g + 15 ml per quintal for egg production
-chq- 60 at rate 100 g / quital most economical for broiler production
-cattle farmore and anifeed are good milk stimulant at rate of 40 ml and 10 g per kg of feed for zersey cross bred cows
Enhancement of the nutritive value for low grade roughages—
-silage of green maize and oats with 1-2 % urea ie . dmb and 5 % molasses (fresh basis) a good basal ration for milking cows
-haylage with 2 % urea ie. On dry matter basis,and 5 % molasses on fresh basis is a good basal ration for dry animals
-urea ammoniation of wheat straw (4 % urea and 45 % moisture level) for 40 days a good basal feed for maintenance of dry cattttttttle.
-chapped hays,paddy straws can be rendered better basal feed for cattle by mixing 10 % molasses ,1 % urea, and 1 % mineral mixture.
Carrying capacity of grass lands/pastures—
-palampur zone-2
2-3 growing heifers /hectare/ annum by feeding extra concentrate to meet the dcp requirements or 1.31 animal unit/hectare/ annum or 6.55 sheep / hectare /annum
-phuttakhal zone-3
6.05 sheep/hectare./ annum without ex tra concentrate feeding or 1.21 animal unit / hectare/ annum
Bara bangahal zone-4-
3.18 sheep / hectare/ annum without extra concentrate feeding of 0.64 animal unit / hectare/ annum.
Fodder resources----
The local grasses of palampur ie. Zone 2 are inferior to those of phuttakhal ie. Zone 3 and bara bangahl ie. Zone 4.
Green oats and its silage is a good source of fodder for high milk production.
-the green kikuya grass is a good fodder to meet maintenance needs of animals.
-biul ,toot,maggar,robinia and leucaenia are good fodder tree leaves for cattle.
- local herbages chronically deficient in copper.
-palampur herbages are highly deficient in crude protein and energy.
-hpkv provides milk replacer for early stage.
UROMOL BRICKS—
Urea=10 %,molasses=30, maida=15,mineral mixture=15,sunflower/gnc/mustard=10, bran ie. Dorb=10, salt=10 % ;heating and stirring for 30-35 minutes ie. Of urea and molasses to avoid urea toxicity,then rest of things added; weight is 2.5 kg / brick.
Mineral mizture—
Dcp=57 % ,,lime powder ie . caco3= 10, salt ie. Nacl=30, mgso4+mnso4+ znso4+ cuso4+cocl2+ feso4+ ki=3%;all ingredients are of food grade.
Dog buiscuits—non veg. type-maida=55 kg,cakes ie. Soyaflax/gnc=30 , meat offel=10 , mineral mixture=5 kg; also 0.5 g of vitamins a,d,e,k and 1 g of b- complex and c ;we flush with nitrogen

gas or spray of glucose after drying to prevent growth of harmful organisms;all ingredients powdered and then flushed momentarly and packed.

Urea molasses treatment—

70 kg of any dry fodder –chaffing ie. Maize stovers,paddy and hay + molasses=2-3 kg+urea=100g +mineral mixture=200 g;100 g urea dissolved in ½ litre of water , addd 200 g of mineral mixture,transfer to 1 kg of molasses- make it 6 litre with adding 4.5 litre water-spray it eith sprayer on 70 kg of dry straw etc.,can be fed ad lib.

Ammoniation—

40 days are required, 100 kg of roughage, 4 % urea and 35 litres of water;mix 4 kg urea in 5-6 litres water and make to 35 litres with water ,spray on roughage after chaffing;dump in pit,wooden box or polythene to create anaerobic growth;open after 40 days;before offering to animal , keep open to remove ammonia.

Silage—100 kg straw,5% molasses, 1 % urea,chaff it; 4.5 feet x 4 feet x 3 feet is silo pit size for 500-600 kg silage,black polythene shete due to its cheapness,30-35 % dry matter;make 6 inch layer-press it – give one spray of above-make another 6 inch layer-press-spray and like wise;make cone shape above ground ie 1.5 to 2 feet above ground at centre of cone-put dry straw over it-polythene covering-soil ie . wet soil covering;colour is golden yellow with fruity smell.

The probiotic concept----

The beneficial and neutral bacteria of the git can not compete with pathogenic bacteria as effectively during stress and consequently their number decreases. The probiotic concept is a numbers game where billions of probiotic colony forming units ie. Cfu s takeover and become the prdominant species within git

How probiotics work—compe titive exclusion—by attaching to specific sites on the intestinal wall ie. Microvilli , proniotic bnacteria previent other bacteria from adhering in the same place

Produce lactic acid—lactic acid decreases the surface ph of the intestinal wall , inhibiting other bacteria such as gram negative e.coli.

Produce hydrogen peroxide—it acts as powerful bateriacidal agent.

Probiotic concept—feeding arge amount of microbes to combat negative effect of stress.

To improve copper deficiency in h.p.—nitrogen at rate 40 kg/ha or cuso4 @ 2.5 kg / ha in pasterus as spray or grow seteria,fescue,clovers , babul, tut , biul,robinis, kachanar.guinea grass and green panic—fruitless to grow.

SLAUGHTER HOUSE –SHIMLA

Cysts inside lungs and liver (cysts should not be ruptured)-affected part is discarded.;infracted-affected portion is discarded;piny minute abscesses-whole liver is discarded;haemorrhagic liver and lung-affected part is discarded;tumourous growth in liver-whole liver discarded; clay pipe/pipe stem appearance of liver along with worm inside parenchyma-whole liver discarded;cheesy pus inside right popliteal lymph node-whole right quarter discarded;minute pus filled abscesses on lungs –whole lungs discarded;fibrous attachment ie. Opaque on inside rib cage (other wise it is transparent)-affected part discarded;traumatic haemorrhages on rib cage and legs-affected parts discarded.

Time of daily observations=7:45 to 11 am .

Cysts on lungs and liver-affected part discarded;tumorous spleen ie. Bulging on one end-spleen discarded;haemorrhages /hyperemia at corticomedullary junctions of kidneys-kidneys discarded,calcification of edges of cut sections of testes observed ie. Were saw like roughening of edges- whole testes discarded;milliary tuberculosis on liver/ lungs ie. Small pin head size calcified nodules diffusely distributed-whole lung discarded.

Observations—biceps brachii and ---- muscles were cut at the medial side of knee joint and hock joint respectively to observe for if any pomegranate seed like structures ie. Cysts sticking to te muscles; base of tongue also observed for such type of cysts; masseter muscles were also cut transversally to observe cysts;note-absence / presence of cysts in leg muscles alone can determine acception / rejection of whole pig carcass.goat---- lungs—nodular growth and cyst-lungs

rejected,liver-- fibrous layer-affected area discarded,liver—cirrhosis and enduration-whole liver discarded.
General procedure for inspection of lymph nodes---- popliteal—on posteromedial aspect of thigh muscles ,observed by reflecting the two muscle bellies away;prefemoral—on junction of hind leg with body;suprascapular—on anterio dorsal aspect of scapula.
Hard nodular growth on ribs denote bone form of tuberculosis.
Cysticercus tenuicollis ie. Bladderworm with single scolex is found in lungs and liver.cysticercus cellulosae is found in different / many body muscles of pigs. Pig carcase is scalded before dressing in hot water to remove superficial keratinized layer,its skin is edible.pleura and peritoneum is examined for any growth ie. Nodular, fibrous attachments and haemorrhages ,such parts are discarded away.miliary tuberculosis was also present on liver.in pig, blood removing ie. Exsanguinations was done by heart puncture from jugular furrow downwards.fasting is done for 6-7 hours in small animals and 12-24 hours in large animals so that toxins produced by digestion and absorption are diluted and eliminated till that time; water is withheld from 12 hours in both small and large animals.for v.g.- papa stain is there.in postpartum anestrous—receptal has same efficiency as lugoles iodine paint- a research by hpkv- students.go for multivitamins and laxatives during vincristicin- treatment.
BITCH----
Proestrous—large and small intermediate cells mainly,very less parabasal cells ie. 5-30 %, large intermediate cells and superficial cells=5-25 %;estrous—75-90 % cornified/ superficial cells, no wbc ,disappearance of wbc-ovulation occurred 24-36 hours after disapp.,no parabasal cells ,variable no. of rbcs ,estrus being the best time for mating.
Metestrus—start of metestrus-few no. of superficial cells at end of metestrus,few superficial cells mainly large intermediate cells
Diestrus—mainly parabasal cells.
Intermediate cells—small cells with large nucleus,rounded,definitive,angular cell,irregular shape of cell and typical nucleus.parabasal cell—oval cell,oval and large nucleus.non parabasal cells—angular cells of different shapes,mainly oval but other shapes of nucleus too,small nucleus.
Superficial cells—non nucleated,increase in size of cell;
Parabasal cells less+rbc s + nonparabasal cells increased—proestrus.
More than 70 % of cells are nonnucleated,cornified and larger ,absence of or very few rbc s with no neutrophils, we may find 1,2,3,4 parabasal cells—right time of mating of estrus;ovullllllation-picture same but neutrophils appear.
Metestrus—superficial cells and nuclear cells increases and parabasal cells increasing.
(Degree forenheight – 32)/ 180 =degree celcius/ 100.

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