

PASHUPALAK CALENDAR

NAMSAI DISTRICT, ARUNACHAL PRADESH



Published by:
Director

ICAR-National Research Centre on Yak

Dirang-790101, West Kameng District, Arunachal Pradesh

An ISO 9001: 2015 Certified Institute
In Collaboration with

Krishi Vigyan Kendra, Lohit

in Namsai District, Arunachal Pradesh

FIRST A.I. CALF INSEMINATED WITH FROZEN SAHIWAL BULL SEMEN (AGE-1.5 YRS)



Source:

Text book of Animal Husbandry. Eighth Edition, Oxford & IBH Publishing Co. Pvt. Ltd, N Delhi
Technology Inventory for Livestock and Poultry Production in North East Region. ZPD Unit, Zone III,
Indian Council of agricultural Research, Barapani, Umiam, Meghalaya.

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JANUARY

- ❖ Sever cold during whole Month, therefore all necessary steps to be taken to protect livestock from this inclement weather.
- ❖ During night all types of animal viz.cow, buffalo, goat, pig and poultry should be provided covered and enclosed shelter with proper bedding material to avoid cold from ground.
- ❖ High milk yielder cow, calf and bullocks should be proved a covering of gunny bag to prevent from cold.
- ❖ Sever cold reduces milk yield. Extra ration may be given to maintain the milk yield in lactating cow.
- ❖ Wild grass, rice straw, dry leaves may be used as bedding material during night.
- ❖ Supplementation of locally available *Shatavari* herb root powder @50 to 100g/day/cow will be helpful to maintain milk yield in lactating crossbred cow.
- ❖ Mineral mixture and salt supplementation should be continuing as usual.
- ❖ Plenty of green fodder should be available for lactating cow.
- ❖ Goat should not be allowed grazing during early morning and late evening.
- ❖ Goat and their kid should be provided a covering of jute bag to prevent from cold.
- ❖ Slated floor housing (Chaong ghar type) is most suitable housing for goat during winter season. Bedding material works as insulator and prevent heat loss from the body, thus helpful to keep body warm.
- ❖ Ecto- parasite infestation during winter is a common problem in goat and other small animals. All animal of the flock should be deworm and disinfect with suitable disinfectants.
- ❖ Less availability of green grass, therefore supplementary green fodder is essential for better growth rate.
- ❖ Low ambient temperature is very harmful for new born piglets. Alternative heating arrangement for farrowing sow and their new born piglet is necessary to avoid piglet mortality due to hypothermia.
- ❖ During winter season hypothermia is main cause of mortality of piglets, therefore pregnant sow should be accommodated in enclosed pen with nesting materials.
- ❖ Since duration of sunshine reduced, artificial light during night is necessary for laying bird (16hrs).
- ❖ Maintain optimum temperature for new chicks.
- ❖ Avoid dumpiness in poultry pen.
- ❖ Contagious pleuro pneumonial (C.C.P.P) is very fatal disease of goat during winter season.
- ❖ Vaccination of Goat by Contagious pleuro pneumonial vaccine. First vaccination of kid should be done at the age of 6 month.



FEBRUARY

- ❖ As severe cold persist, all measures mention in the previous months should be followed up.
- ❖ During night all types of animals *viz.* cow, buffalo, goat, pig and poultry should be provided covered and enclosed shelter with proper bedding material to avoid cold from ground.
- ❖ February month belongs to main calving season for cow. During calving and after calving proper care should be taken.
- ❖ Feeding of first milk of mother (Colostrum; yellow milk) to new born should be within 0.5 to 2.00 hours after birth.
- ❖ Check for naval ill/ calf score in new born calf.
- ❖ Respiratory disease (Pneumonia) is a major cause of calf and kid mortality during winter season, therefore, calf and kids should be protected from cold.
- ❖ Deworming of new born calf at day 3 and 21 with piperazine @ 200-300mg/kg body weight especially against ascariasis thereafter, every three month.
- ❖ Maize stover effectively store as dry fodder for lean period



MARCH

- ❖ Moderate and pleasant weather during the Month.
- ❖ Plenty of green fodder should be available.
- ❖ Preparation of silage from available green fodder for lean period.
- ❖ All animals should be dewormed before vaccination including poultry.
- ❖ Cow shed/Goat shed/Pig sty should be well prepared to save animals from pre-monsoon rainfall.
- ❖ Time for sowing of summer season fodder crop viz. maize, cowpea, sorghum etc. may be done in this month as and when proper moisture is available in the soil. For obtaining continuous supply of green fodder, split the fodder area and sowing each at 20 days interval.

Package and practices for summer season green fodder crop:

Name of the Crop of the summer season	Sowing Time	Variety	Seed rate (Kg/ha)	Fertilizer and Manure (Kg/ha)			Harvesting time (DAS)	Fodder Yield (t/ha)
				N	P	K		
Maize	March-May	African Tall	60	120	60	40	45-60	60-70
Sorghum	March-May	CSH 24 MF, Pant Chari-6, Pant Chari-9	10-15	120	60	60	45-60	50-60
Cowpea	March-May	Type-21, Bundel Lobia-1, Bundel Lobia-2	25-30	120	60	-	60	40-50



APRIL

- ❖ If deworming is not done yet, it must be completed in this month.
- ❖ Before monsoon season, proper maintenance of roof in livestock shelter should be done.
- ❖ Heat symptom of animals should be observed regularly to breed the animals at proper time.
- ❖ Matting should be done at 12 -18 hours after initiation of heat.
- ❖ Pregnancy diagnosis should be conducted at regular intervals.
- ❖ Anoestrus cow should be treated to get a calf in every year.
- ❖ Offers two to three times water in a day.
- ❖ Plenty of water should be available in the animal shed.
- ❖ Iron supplementation should be provided to the new born piglets at day 4 and 14 of age.
- ❖ Vaccinate the animals to protect seasonal disease.

Name of disease	Adult Cow/Buffalo	Adult Goat	Repeat
Foot and Mouth Disease (FMD)	Calf: First dose at 4 months and above, Booster 1 month after 1 st dose	Kid: First dose above 6 months	Every 6 months
Haemorrhagic septicaemia (HS)	Calf: First dose at 6 months and above	Kid: First dose above 6 months	Annually
Black Quarter (BQ)	Calf: First dose at 6 months and above	Kid: First dose above 6 months	Annually
Anthrax	Calf: First dose at 4 months and above	Kid: First dose above 6 months	Annually
Goat Pox	-	Kid: First dose above 6 months	Annually
Enterotoxaemia	-	Kid at 6 month and Adults	Annually

Vaccination schedule for Poultry			Vaccination schedule for pig		
Disease	Age and booster doses	Route	Disease	Age and booster doses	Route
1 day	Marek's	I/M	Swine erysipelas	3-4 weeks, repeat 3-6 weeks later and after that every 6-9 months	s/c
5-7 days	Rani Khet (Lasota/ F)	O/n	Swine fever	6-8 weeks, after that annually	s/c
10-14 days	IBD	Drinking water	FMD	6-8 weeks, repeat every 6-9 months	i/m
24-28 days	IBD	Drinking water	Tetanus	4-6 weeks, 12 weeks and annual	s/c or i/m
6th week	Fawl pox	Wing web	HS	6-8 weeks, repeat every 6-9 months	s/c
8th week	Ranikhet	S/C	BQ	6-8 weeks, repeat every 6-9 months	s/c or i/m
16-18th week	Ranikhet	S/C			



Vaccination schedule for Cattle and Goat:

MAY

- ❖ In this month care need to be taken to prevent diseases caused by hot weather
- ❖ Due care need to be taken to prevent spread of diseases caused by mosquito, flies, ticks etc.
- ❖ If vaccination is not completed it must be completed by this month.
- ❖ Regular examination of animals to ensure the occurrence of disease like FMD, HS and BQ.
- ❖ Animal infected with Foot and Mouth Disease (FMD), Haemorrhagic Septicaemia (HS) and Black Quarter (BQ) should be segregated from healthy herd until its recovery.
- ❖ Mouth and hoof of animal must be clean with 1% solution of $KMNO_4$ (Potassium permanganate).
- ❖ Poultry shed should be maintained optimum temperature to prevent from heat stress.
- ❖ Plenty of water should be available in the pen.
- ❖ Preventive dose of anti-coccidiosis and antibiotics should be given for poultry.
- ❖ Maize and sorghum fodder crop should be cut at 40 to 50 days after sowing.
- ❖ Cowpea fodder crop should be cut at 60 days after sowing.
- ❖ Clean, complete and dry milking is recommended to prevent from mastitis.
- ❖ To prevent occurrence of moisture born diseases make adequate arrangement for water drainage and keep the shed dry.
- ❖ Proper management for preventing/reducing environmental stresses especially in Rabbit production.
- ❖ Against coccidiosis in Rabbit provide 1 ml Amprolium solution(9.6% amprolium) in 1 lt of water for 5 days.



JUNE

- ❖ Heat related diseases in animals that can be seen during this time are fever, dehydration, decrease in body salt, loss of appetite and decrease in productivity.
- ❖ Due to rise of temperature, the high milk producing animal should be kept under cool condition.
- ❖ To protect from direct sunlight/heat keep them in the shade of tree.
- ❖ Providing fan and swore to animals are beneficial to maintain the higher milk productivity of crossbred cow.
- ❖ Frequent wetting due to rain should be avoided for goat.
- ❖ Appropriate heat stress management is also necessary for pig.
- ❖ Plenty of water should be made available in the pen.
- ❖ Preventive dose of anti-coccidiosis and antibiotics along with anti-stress agent should be given.
- ❖ Sowing of maize crop for the month of August
- ❖ Regular examination of animals for occurrence of disease like FMD, HS and BQ.
- ❖ Animal affected by FMD, Haemorrhagic Septicaemia (HS) and Black Quater (BQ) should be segregated from healthy herd until it cure.
- ❖ Mouth and hoofs of animal must be clean with 1% solution of $KMNO_4$ (Potassium permanganate).
- ❖ Pregnancy diagnosis should be carried out to find out the non-pregnant animals and then treat accordingly.
- ❖ Draught animals should be allowed to work at early in the morning and rest in a shaded and airy spot during afternoon.
- ❖ Time for sowing of rainy season fodder crop viz. maize, cowpea, sorghum, rice bean etc. may be done at this time as proper moisture is available in the soil. For obtaining continuous supply of green fodder, split the fodder area and sowing it at 20 days interval.

Package and practices for rainy season green fodder crop:

Name of the Crop of rainy season	Sowing Time	Variety	Seed rate (Kg/ha)	Fertilizer and Manure (Kg/ha)			Harvesting time (DAS)	Fodder Yield (t/ha)
				N	P	K		
Maize	June - July	African Tall	60	120	60	40	45-60	60-70
Sorghum	June - July	CSH 24 MF, Pant Chari-6, Pant Chari-9	10-15	120	60	60	45-60	50-60
Ricebean	June-July	Bidhan Rice Bean-2 (KRB 4), BIDHAN-1, Shyamalima	45-60	20	40	30	60	35-40
Transplanting of perennial grass								



Setaria perennial grass



Maize Sown at interval

JULY

- ❖ As in the month of June, all effort is to be continued to protect animals from the hot and humid weather.
- ❖ Made adequate arrangement to protect the animals from heavy rains and floods.
- ❖ Keep the floor always clean and dry condition.
- ❖ Make arrangement for proper ventilation in poultry house.
- ❖ Keep the litter material dry and change it periodically to avoid ammonia toxicity.
- ❖ Protect from direct sunlight/heat keep them in the shade of tree.
- ❖ Providing fan and swore are beneficial to maintain the higher milk productivity of crossbred cow.
- ❖ Frequent wetting due to rain should be avoided for goat.
- ❖ Appropriate heat stress management is also necessary for pig.
- ❖ To prevent from heat stress, optimum temperature should be maintained
- ❖ Plenty of water should be available in the poultry pen.
- ❖ Preventive dose of anti-coccidiosis and antibiotics along with anti-stress agent should be given.
- ❖ If animals do not have access to green fodder, they should be given vitamin A injection to overcome its deficiency.
- ❖ Feed containing essential vitamins, minerals and salts should be fed to animals.
- ❖ Prevention from Bloat in Goat, Cow and Pig.
- ❖ Prevention from drinking of water from low and marshy land containing snails.



AUGUST

- ❖ Made adequate arrangement to protect the animals from direct exposure to sunlight.
- ❖ Clean, complete and dry milking is recommended to prevent occurrence of mastitis.
- ❖ A lot of green fodder is available at this time, hence, to protect animal from problems associated with excess grazing, restrict the time that they span on pasture.
- ❖ Utilize the excessive green fodder for Silage preparation for future use.
- ❖ Carcasses of dead animals must be removed from grazing areas to prevent the spread of diseases.
- ❖ Carcasses of animal must be disposed by burying in deep soil.
- ❖ Balance feeding of cow/buffalo with mineral mixture (30 to 50g/day) to increase milk productivity and enhance immunity.
- ❖ Keep the floor of shed clean and in dry condition.
- ❖ Protect animal from ecto-parasites. Proper medication and preventive measurement should be taken.
- ❖ Make arrangement for proper ventilation in poultry house.
- ❖ Keep the litter material dry and change it periodically to avoid ammonia toxicity.
- ❖ Frequent wetting during the rain should be avoided for goat.
- ❖ Deworming of all domestic animals.



SEPTEMBER

- ❖ Castration of male calf at the age of six month. Clean, complete and dry milking is recommended to prevent from mastitis.
- ❖ To prevent occurrence of moisture born diseases make adequate arrangement for water drainage and keep the shed dry.
- ❖ Animal affected by FMD should be kept in a separate enclosure so that they do not infect the health ones. If FMD is prevalent in that area, do not let yours animals come in contact with the infected ones.
- ❖ Calf should not be allowed to drink milk from mother affected with FMD.
- ❖ Ensure the fodder kept area is dry.
- ❖ If there is adequate quantities of green fodder still available after feeding the animals the extra fodder must be sun dried and stored for lean period.
- ❖ Protect the animals from the rise and fall of temperature.
- ❖ Heat symptom should be observed in non-pregnant cow.
- ❖ Animals should deworm with suitable anthelmintics.



OCTOBER

- ❖ Starting of winter season, so get prepare to prevent from cold to the animals.
- ❖ Sowing of improve variety of cow pea and lobia for green fodder.
- ❖ Maize crop should be sown for fodder purpose.
- ❖ Cutting of sown perennial grasses (Napier/Seteria) should be done regularly. The field should be treated with required fertilizer, manure and compost from time to time.
- ❖ Due care should be taken to keep grazing pasture clean.
- ❖ The floor and wall of shed should be cleaned and coated with lime solution.
- ❖ Pregnant animals should be given additional feed at the last third part of pregnancy.
- ❖ Protect the animals from the rise and fall of temperature.
- ❖ Clean, complete and dry milking is recommended to prevent from mastitis.
- ❖ Time for sowing of winter season fodder crop *viz.* maize, jai, cowpea etc. may be done at this time as proper moisture is available in the soil. For obtaining continuous supply of green fodder, split the fodder area and sowing it at 20 days interval.

Package and practices for winter season green fodder crop:

Name of the Crop of winter season	Sowing Time	Variety	Seed rate (Kg/ha)	Fertilizer and Ma-nure (Kg/ha)			Har-vesting time (DAS)	Fodder Yield (t/ha)
				N	P	K		
Jai	Oct-Nov	Kent, Bundel Jai- 991, JHO-851	100	100	40	40	45-60	50-60
Cowpea	Oct-Nov	Type-21, Bundel Lobia-1, Bundel Lobia-2	25-30	120	60	-	60	30-40
Maize	Oct-Nov	Local	60	100	40	40	45-60	50-60



Jai (Fodder Crop)



Cowpea

NOVEMBER

- ❖ To protect animals from a sudden drop in temperature, keep the animals in a covered shed/ pen during the night.
- ❖ Periodic vaccination of FMD, HS and BQ must be done.
- ❖ Post monsoon deworming is essential for dairy and meat producing animals
- ❖ Essential minerals and vitamins should be supplemented to Non-pregnant cow and buffalo to return in heat.
- ❖ Due care should be taken to pregnant animals.
- ❖ Provide balance and laxative ration to cow 20 days before calving and after calving 20 days.
- ❖ Delay in calving or expulsion of faetus from the cow- veterinarians helps should be taken to avoid from the loss of calve or cow.
- ❖ Colostrum: (first yellow colour milk) should be feed to new born @ 1/10 of calf body weight in two to three equal quantity.
- ❖ Eating of placenta is not good for health of freshly calved cow. Therefore, adequate precaution should be taken to prevent from eating of placenta.
- ❖ Deworming of new born calf at day 3 and 21 with piperazine @ 200-300mg/kg body weight especially against ascariasis thereafter, every three month.
- ❖ Clean, complete and dry milking is recommended to prevent from mastitis.
- ❖ Sowing of winter fodder crops viz. Cowpea, Lobia as recommended.
- ❖ Maize crop should be sown for fodder purpose.
- ❖ Use bio-fertilizer for seed treatment for fodder crop.
- ❖ Collect rice straw and store effectively as dry fodder.



DECEMBER

- ❖ To protect animals from a sudden drop in temperature, keep the animals in a covered shed/ pen during the night.
- ❖ Periodic vaccination of FMD, HS and BQ must be done, if not given in previous month.
- ❖ Essential minerals and vitamins should be supplemented for growing calf and lactating animals.
- ❖ Leguminous fodder must be fed with dry fodder to avoid tympanitis/ bloat.
- ❖ Irrigation of cow pea and Jai should be done for higher green fodder yield.
- ❖ Maize crop should be cut at 40 to 50 days after sowing.
- ❖ Clean, complete and dry milking is recommended to prevent from mastitis.
- ❖ In the last month of pregnancy, the animals should be given injection of vitamin A and selenium to protect them from problem associated at the time of giving birth such as retention of placenta. Alternatively, 5-10g of lime or 70-100 ml of a mixture of calcium and phosphorus can be given to the animals daily.
- ❖ Milk processing is more beneficial than the selling of liquid milk. Extra milk may be processed as Paneer. Flow diagram of Paneer making at farmers'home : 5 Litre fresh milk → Boil → Removed from fire, cool to 70 °C → Add 1% lactic or citric acid slowly → Continuous Stirring → Wait till complete coagulation → drain off whey from coagulum using muslin cloth → Transfer milk coagulum with muslin cloth into a porous round pan and apply 10 kg weight on it for 15-20 min. → Remove weight and transfer the Paneer block in pasteurized water for 2 to 3 hr. → Paneer ready to use or packaging.

