**INFECTIOUS DISEASES**

**1. BACTERIAL DISEASES**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the disease | Species affected | Symptoms | Age group affected | Season | Measures to be taken |
| 1. Anthrax | Cattle, Sheep, Goat, Horse, Pig, Camel, Elephant, Tiger and in Dog. It is zoonotic so man may get infection. | 1. Elevation of body Temperature (104-108 degree F).  2. Refuge to eat and development of Bloat.  3. Extremely depressed.  4. Pulse and respiratory rate accelerate extremely.  5. Muscular tremor.  6. Oedema under neck, brisket region, thorax, abdomen and flank. 7. Following death there is oozing of blood from natural orifices. | All age group of animals are affected. | All seasons. | 1. Immediately contact to the nearest Veterinarian.  2. Regular vaccination. |
| 2. Haemorrhagic Septicaemia (Gal Fula) | 1. Cattle & buffaoes are most susceptible.  2. Sheep, goat, pig and horse may acquire the disease in lesser extent.  3. Rabbit and mice are highly susceptible. | 1. Elevation of body Temperature (104-107 degree F) with concurrent shivering.  2. Profuse salivation, lacrimation and nasal discharge.  3. Conjunctivitis and visible mucous membrane assume deep red colour.  4. Sharp drop in milk yield.  5. Abdominal pain, severe diarrhea and dysentery.  6. Localization of oedema in the subcutaneous pocket of head, neck, dewlap and brisket. | Age group of 6 months to 2 years. | In all seasons. | 1. Immediately contact to the nearest Veterinarian.  2. Regular vaccination |
| 3.Brucellosis | Cow, Buffalo, Goat, Sheep, Horse, Dog, Cat, Fowl, Guineapig, Rabbit. | 1. Abortion- after six months of pregnancy.  2. Greyish white muco purulent discharge from vagina.  3. Retention of foetal membrane.  4. Mastitis may also occur.  5. In male animal epididymitis and orchitis develops.  6. Bulls lose sexual desire and remain infertile. | Animal is more susceptible while attaining breeding age. | In all seasons | 1. Hygeinic disposal of uterine discharge, foetus, foetal membranes are must.  2. Contaminated premises should be cleared and disinfectant.  3. Pregnant animal if newly brought should be kept isolated till calving.  4. Calving should be attended with all hygienic precaution.  5. Immediately contact nearest Veterinarian. |
| 4.Tuberculosis(TB) | Cattle, Buffalo, Goat, Sheep, Horse, Elephant, Dog, Cat, Fowl, | 1. Emaciation in spite of provision of optimum nutrition.  2. Difficulty in breathing, painful dry cough.  3. Abdominal pain, diarrhea and bloat.  4. The faeces is coated with mucus, pus and sometimes blood.  5. TB in udder results in formation of small nodules in mammary tissue.  5. Diurnal variation of body temperature. | All age group | In all seasons. | 1. Contact to the nearest Veterinarian.  2. Keep the diseased animals away from the healthy animal.  3. Feeding & watering trough, milking pans should be cleaned and disinfected.  4. Floor of the barns should be properly cleaned and disinfected. |
| 5. Paratuberculosis (Johne’s diseases) | Cattle, Buffalo, Goat & Sheep, | 1. The affected animal shows intermittent or continuous diarrhoea.  2. Faeces is dark in colour and contain bubbles.  3. The animal become emaciated, weak, take less food & water, colour of the hair become fade, skin become loose in the dewlap, brisket and intermandibular space. | All age group | In all seasons | 1.Examination of faecal sample in enzootic area at 6 months interval  2.Affected animals are kept away from the healthy ones  3.Faeces must be removed and heavy lime dressing are to be done to kill the bacteria  4. Proper disposal of the dung as it is the main source of infection.  5. Surroundings and utensils should be cleaned and disinfected thoroughly.  6. Consult nearest doctor immediately. |
| 6.Leptospirosis | Cattle, Buffalo, Goat, Sheep, Horse, Donkey, Dog, Cat,& pig | 1. High rise of body temperature, accompanied by anorexia, haemoglobinuria (blood in urine), dyspnoea, icterus, and abortion.  2. Milk of affected animal may be red due presence of blood.  3. Abortion and still birth occur in 5-9 month pregnant cattle.  4. Conjunctivitis may develop. | All age group | In all seasons | 1. Strict sanitary measures should be adopted in the farms.  2. Infected animals should be separated from the herd.  3. Drinking water, feeding trough, stored feed should be avoided from contamination from urine of animals.  5. Rodent is the main carrier so control of rodent is very important.  6. Contact the nearest veterinary doctor. |
| 7.Listeriosis | Cattle, Buffalo, Goat, Sheep, Horse, Donkey, Dog, Cat, pig, bird, fish | 1. Dull, depression, diarrhea, with high rise of temperature.  2. Unilateral facial paralysis and drooling of saliva.  3. Paralysis of pharynx death occur due to respiratory failure.  4. Infection in early pregnancy leads to abortion. | All age group | In all season | 1. Litters and bedding materials of infected animals should be burnt.  2. Contact the nearest veterinary doctor. |
| 8.Colibacillosis(Calf scour) | Cattle | Marked prostration, profuse diarrhoea, high rise of temperature, anorexia, dull and depression, stiffness, sunken eyes, tucked up abdomen and rough hair coat. | Calves of 12 hours to 14 days of age | In all season | 1. Oral rehydration with ORS.  2. Calves should be kept clean and disinfected.  3. Calves should be allowed to suck colostrums for first 4 days.  5. Immediately contact nearest veterinary doctor. |
| 9.Salmonellosis | Cattle, sheep, horse, fowl, rodent and dogs | 1. Effected adult animal shows anorexia, depression, high temperature, profuse watery faeces mixed with blood clot and mucus  2. Frequent defecation accompanied by abdominal pain.  3. Gradually initial temperature drops to subnormal temperature. | All age group | In all seasons | *1. Calving should be done in a clean place.*  *2. Calves should be fed with colostrums at least for 4 days.*  *3. Overcrowding should be avoided.*  *4. Animals should be fed with clean water.*  *5. Immediately contact nearest veterinary doctor* |
| 10 Actinomycosis (Lumpy jaw) | Cattle, pig, dog and horse | 1. Lesions appears like hard painless circumscribed protuberance at the level of central molar teeth of the mandible or maxilla.  2. In some cattle large granulomatous mass appear on the surface of the jaw followed by development of sinus tracts.  3.The granules are yellow to white in colour and the discharge are thick , mucoid , yellowish purulent exudates  4. Mastication is effected and there is impairment of digestion resulting in loss of general health.  5. There is foul breath from the mouth.  6. Excess salivation and difficult in deglutination. | Age of 2-5 years in cattle is more susceptible. | In all seasons | 1. Infected animals should be kept isolated.  2. Soft succulent feed should be provided.  3. Contaminated material should be removed.  4. Contact nearest veterinary doctor. |
| 11.Actinobacillosis(wooden tongue) | Cattle, Buffalo and Sheep | 1. Tongue is affected and appear wooden.  2. There is drooling of saliva and difficulty in mastication.  3. Affected animal is unable to eat so there is progressive weight loss.  4. Tongue is protruded swollen and hard, and also signs of ulceration at different parts of the tongue.  5. Loud snoring sound is produced | Age of 2-5 years in cattle are more susceptible | In all seasons | 1. 1.Infected animals should be kept isolated.  2. Soft succulent feed should be provided.  3. Contaminated material should be removed.  4. Contact nearest veterinary doctor.  5. Handling of infected should be done with adequate care as the disease may transmit to man. |
| 12. Campylobacteriosis (Epizootic abortion) | Cattle, Buffalo and Sheep, Goat | 1.Abortion occurs between 4-7 month of pregnancy  2.During heat mucopurulent discharge from vagina | Sexually mature animals | In all seasons | 1. A.I should be preferred in infected herd.  2. Infected bulls should be kept away from the herd.  3. Contact nearest veterinary doctor. |
| 13.Foot rot | Cattle, Buffalo ,Sheep,Goat,and pig | 1. Lameness, elevation of body temperature, anorexia, loss of body weight, milk yield decrease, Skin in between hoof shows ulcers, effected animal kicks the ground and reluctant to move. | All age group | In all season | 1. The effected animals should be kept indoor on dry and smooth surface.  2. Isolate the infected animal.  3.Contact nearest veterinary doctor |
| 14.Black Quarter( | Cattle, Buffalo, Sheep, Goat | 1. Rise in body temperature, anorexia, stiffness or lameness of one of the leg.  2. Muscles of thigh, buttock, neck, lumber and sometimes in jaw become swollen dark in colour and become spongy.  3. On pressure affected muscle gives crackling or crepitating sound.  4. There difficulty in breathing increase pulse rate.  5. Patient dies within 12-48 hours. | Age between 4 month to 2 years | In all season | 1. All animals should be vaccinated.  2. Contact nearest veterinary doctor immediately. |
| 15.Mastiris | Lactating animals | 1. Udder is swollen, hard and Painful.  2. Milk becomes yellow or brown fluid mixed with clots.  3. Affected animal shows high rise of temperature.  4. One quarter or entire udder may be affected. |  |  |  |
| 16.Contagious Bovine Pleuropneumonia (CBPP, Lung plague) | Mostly in cattle, occasionally in Buffalo, Yak, Deer. | High rise of temperature, anorexia, cough after work, reluctant to move, grunting sound during expiration, nasal discharge, drooling of saliva, dropping milk yield. | All age group. | All seasons. | 1. Affected animal should be kept away from healthy animals.  2. Contact immediately nearest Veterinary Doctor. |
| 17. Contagious Caprine Pleuropneumonia (CCPP) | Sheep and Goat. | High rise of temperature, anorexia, dry painful cough, reluctant to move, nasal discharge, dullness, depression. | All age group | All season. | 1. Affected animal should be kept away from healthy animals.  2. Contact immediately nearest Veterinary Doctor. |

**2. VIRAL DISEASES**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the disease | Species affected | Symptoms | Age group affected | Season | Measures to be taken |
| 1.Foot and mouth Disease (FMD) | Cattle more susceptible, Buffalo, Sheep, Goat, Deer, Pig Camel are also susceptible | High rise of temperature, Depression, Anorexia, reduction in milk yield, followed by appearance of vesicles in the oral cavity, inter digital space and sometime in udder. Drooling of foamy, roapy salivation and protrusion of tongue occur. Vesicles may rupture due to jaw movement. The animals refuse to eat due to pain in the oral mucosa. Similar lesions in the feet appear in the junction of the hoof and skin. Vesicles may appear in the teat leading to mastitis. | All age group | All seasons | 1. Vaccination should be done twice in a year.  2. Affected animal should be kept isolated.  3. Antiseptic mouth wash with potassium permanganate, sodium carbonate, boric acid, and glycerin may be applied over mouth lesions, foot lesions as well as in udder lesions.  4. Consult nearest veterinary doctor immediately. |
| 2.Rinderpest(Cattle plague) | Cattle, occasionally in pig. | Mark rise of temperature, dullness, depression, anorexia, drop in milk yield, retarded rumination, and photophobia. Muzzle is dry and there is profuse nasal and lacrimal discharge.At the beginning there is passing of watery dark large volume of faeces containgmucus and blood. Later animal will pass dry hard faeces coated with mucus and streaks of blood. Eye becomes red. Pregnant animal may abort. | All age group | All seasons | 1. Yearly vaccination  2. Affected animal should be separated from healthy ones.  3. Contact nearest veterinary doctor. |
| 3.Bovine Viral Diarrhoea (mucosal disease) | Cattle | In acute form, there is high rise of temperature (1060 F), anorexia, depression, polypnoea, tachycardia and polydipsia. Nasal discharges and moist coughing, muzzle rough, dry and signs of conjunctivitis. Corneal opacity may also develop. In mild form, fever is of short duration with loss of milk yield, transient diarrhea and infrequent mouth lesion. In sub acute chronic form, there is retarded growth, loss of body weight, emaciation, rough skin coat and intermittent diarrhoea. | Cattle of all ages but incidence are more in 6 to 24 months of age. | All seasons, but higher incidence is observed during rain and winter. | **1.** All affected animals should be isolated during an outbreak.  2. All sorts of hygienic and sanitary measures are to be adopted to inhibit further spread of virus.  3. There is no amenable treatment against this virus infection, so modified live virus vaccine has been suggested to control the disease. Vaccine should be used after 6 months of age and not to be used in pregnant cattle.  4. Contact nearest vet. |
| 4. Malignant Catarrhal Fever(Bovine malignant catarrh) | Cattle and buffalo, inapparent infection in sheep and goat. | The disease is characterized by dullness, depression, anorexia and high rise of temperature ranging from 105-1080F, ocular and nasal discharge. There is increase of pulse and respiratory rate and difficulty in breathing. Muzzle may turn dry and dry nasal secretion may stick to muzzle. Occular lesions may lead to blindness. In some cases, constipation is followed by profuse diarrhea. There may also be incoordination, leg weakness, head pressing, paralysis, convulsion, involuntary eye movement and excitability. Superficial lymph glands are swollen and haematuria may be noted in female cattle. | All age group | All season | 1. No effective treatment is found. Only secondary bacterial infection can be treated.  2. Separation of cattle from sheep is suggested.  3. Contact nearest vet |
| 5.Vesicular Stomatitis | Cattle, pig, horse and human beings may be infected(it can be enlisted as zoonotic disease) | High rise of temperature, vesicles are seen on the mucous membrane of the mouth and tongue. Animals become unable to eat with bloody/frothy salivation. Appearance of lesions on teat and udder leads to decrease milk yield, may lead to mastitis. Foot lesions may be seen and in pig, lameness is prominent. | In all age group, only in case of cattle, calf under one year of age is resistant than adult. | All season. | 1. Contact nearest vet  2. Symptomatic treatment with adequate clean water and non-fibrous soft feed.  3.Isolation of infected animal and hygienic measures |
| 6.Ephemeral Fever(Three days sickness) | Cattle and water buffalo | High rise of temperature, stiffness, lameness, muscular tremor with spontaneous recovery within 3 days (generally). Shivering, muscle trembling, arched back condition, anorexia, salivation, nasal secretion, lacrimation are noticed | Age group in cattle ranges from 6 months to 2 years. | All season | 1. Contact nearest vet  2. Symptomatic treatment  3.Good care and nursing |
| 7. Infectious bovine rhinotracheitis  (Red nose) | Cattle, goat, Swine and Water buffalo | Rise of temperature, anorexia, dyspnoea (difficulty in breathing), nasal and ocular discharge, animal may show open mouth breathing, the nasal mucosa become red hence termed as red nose disease. There may be pustular lesions on the vulva and vagina .There may be conjunctivitis. Sometimes affected animal may show in coordination, tremor, circling, falling coma and death. The pregnant cow may abort following infection. | In all age group | All season | Keep the affected animal away from the herd.  Consult nearest veterinary doctor. |
| 8. Pseudo Rabies  (Aujeszky’s Disease) | Cattle, Sheep, Goat, Pig, Horse, Dog and Cat. | Rise of temperature, Pruritis occur in eyes, nose, ears, lower jaw, chest, legs and in udder. There may be sweating and salivation. The animal licks the affected part. The affected animal will show excitement restlessness, bellowing, roll up and down, stumping on the ground, aimless staggering, aggressiveness and circling in either direction. | In all age group | All season | 1. Isolation of the infected animal should be made.  2. No specific treatment.  3. Contact nearest Vet. |
| 9. Swine Fever | Pig | High rise of temperature upto 1060F-107OF and may persist upto 8th day or till death. Dullness, depression, droopiness, anorexia, vomiting, constipation, severe diarrhoea (offensive), dehydration and loss of body weight are seen. Severely affected pigs may suck urine and water due to high temperature and dehydration.  There may also be birth of mummified, still birth and abnormal piglets. | All age group | All season | 1. Pigs affected should be kept restricted.2. In contact animal should not be sold in the market.3.All pigs in the farm should be kept under strict vigilance .4.Persons handling the affected pigs should not be allowed to handle the healthy ones.5 Vaccination annually with suitable vaccine to be done as routine schedule. |
| 10. Cow pox(Variola vaccine) | Cattle | Temperature is mild in nature, animal show anorexia, suspended rumination and depression. Udder is swollen, hot and sensitive. Typical pock lesions appear on the teat and udder and may be found on the face of the calf. In bulls , lesions appear on the scrotum and inside of thighs | All age group | In all seasons | 1. Application of antiseptic emollient in consultation with veterinary doctor will give good result.2. Affected animal should be isolated .Teat should be dipped in potassium permanganate before milking. |
| 11.Rabies | Cattle, goat, sheep ,pig are moderately susceptible. Dog , wolf, cat, jackal are highly susceptible | Affected animal show loss of appetite, sudden fall of milk yield, trembling or twitching of ears. There is paralysis of muscle of deglutination causing **excessive salivation** and grinding of teeth. **Affected cattle will bellow continuously**. | All age group | In all seasons | Affected animal should be isolated.2. If there is dog bite history vaccination should be done immediately in consultation with veterinary doctor. |

**3. PROTOZOAL DISEASES**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the disease | Species affected | Symptoms | Age group affected | Season | Measures to be taken |
| 1.Babesiosis (Tick fever) | Cattle | High fever, **anorexia**, depression, weakness.  Conjunctival mucosa become brick red in colour in initial stage and become pale in later stage. There is jaundice and hemoglobinuria(blood in urine) | 6-12 month of age | All season |  |
| 2.Theleiresiosis | Exotic cattle are highly susceptible | High rise of temperature, enlargement of regional superficial lymph nodes, increase in heart and respiratory rate, tense eye ball and lacrimation, nasal discharge and coughing, highly coloured urine in later stage, jaundice develop in some cases, urticarial lesions in skin. | All age group of exotic cattle and young calves of local cattle | Summer season | Control of tick population. |
| 3. Toxoplasmosis | Cattle, Buffalo, Sheep, Goat, pig, dog, cat, horse | High rise of temperature and enlargement of lymph nodes are important clinical features | All age group | All season | Toxoplasmosis is a zoonotic(man to animal and animal to man) disease, hence affected animal should be handled carefully and should be kept away from healthy ones. |

**4. FUNGAL DISEASES**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the disease | Species affected | Symptoms | Age group affected | Season | Measures to be taken |
| Dermatophytosis (ring worm) | Cattle, Buffalo, Sheep , Goat, pig, dog, cat, horse | The affected area become red, hair over the area falls, the area is circular and has a tendency to extend. There is development of crust and the lesions mostly develop in head area, dewlap, around the eyes neck and in ears. | Young animal are more susceptible | Summer and rainy season with high humidity | 1.The affected animal should be kept away from the healthy ones.2.The utensils, grooming materials, feeding trough, etc. should be properly cleaned 3.The animal handler should wash their hands properly before handling the healthy ones. |
| Fungal Mastitis | Cattle and buffalo are mostly affected | Affected quarter is swollen and enlarged. Secretion becomes watery. Temperature rises, reduction or stoppage of milk yield, subcutaneous edema in the periphery of the udder. | Older animals are more susceptible | Hot humid season | 1. Affected animal should be kept away from healthy ones.  2. Milker after milking diseased animal should clean hands before milking healthy ones.  3. Feeds with fungal contamination should be avoided.  4. Milking should be done at regular interval.  5. Consult nearest doctor at the earliest |
| 3. Aflatoxicosis | Cattle , Buffalo, Birds, Sheep , Goat, Pig | Dullness, diarrhea, emaciation, ascitis, anemia and icterus(yellowish colouration of the skin) and nervous symptom occur in the cattle | All age group of animal may be affected | More in hot ,humid climate | 1. Feed should be examined for fungal growth.2.Old feed should be avoided.3. Storage of feed should be done in dry condition. |