



EpiNET.India



ICAR-NIVEDI

Animal Disease Information
e-bulletin

Vol. 2 Issue 7 June 2015.

Contents

- ⇒ Top ten diseases reported
- ⇒ Spatial distribution of diseases
- ⇒ Diseases under Control programme
- ⇒ News
- ⇒ Epidemiological concept

The top ten diseases reported during April - May, 2015 are Anthrax, Babesiosis, Black quarter, Enterotoxaemia, Fascioliasis, Foot and mouth disease, Haemorrhagic septicaemia, Peste des petits ruminants, Sheep and Goat pox and Classical swine fever. The following Pie chart shows the top ten diseases reported during April to May, 2015 (Fig 1).

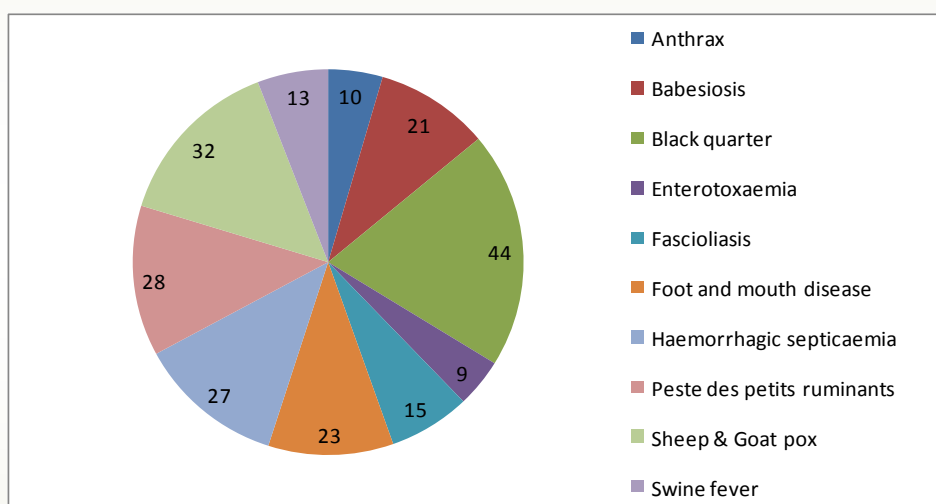


Figure 1: Top ten diseases reported during April-May 2015
(Numbers in chart indicate outbreaks)

Published by :
Dr. H. Rahman
Director
ICAR-NIVEDI

Contact:

National Institute of Veterinary
Epidemiology & Disease Informatics
Phone: 0091-80-23093110/23093111
Email: epinetnivedi@gmail.com

Anthrax has been recorded from four states involving six districts. Maximum number of outbreaks has been recorded in Orissa state. Karnataka, Tamil Nadu, and West Bengal also reported the disease (Fig 2). **Babesiosis** has been recorded from three states involving four districts. Maximum number of outbreaks has been recorded in Puducherry state. In addition, Rajasthan and Tripura states reported the disease (Fig 2). **Black quarter** has been recorded from 11 states involving 22 districts. Maximum number of outbreaks has been recorded in Karnataka state. The other states that reported BQ are Andhra Pradesh, Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, and West Bengal (Fig 2). **Enterotoxaemia** has been recorded from two states involving six districts. Maximum number of outbreaks has been recorded in Andhra Pradesh and Karnataka states (Fig 2).

Table 1: State wise disease reports for April-May, 2015

State	Diseases reported
Andhra Pradesh	Black quarter, Enterotoxaemia, Peste des petits ruminants
Arunachal Pradesh	Fascioliasis
Assam	Black quarter, Fascioliasis, Haemorrhagic septicaemia, Peste des petits ruminants, Swine fever, Theileriosis, Trypanosomiasis
Bihar	Black quarter, Swine fever
Daman and Diu	Foot and mouth disease
Gujarat	Haemorrhagic septicaemia
Himachal Pradesh	Peste des petits ruminants
Jammu and Kashmir	Sheep & Goat pox
Karnataka	Anthrax, Black quarter, Enterotoxaemia, Foot and mouth disease, Peste des petits ruminants, Sheep & Goat pox
Kerala	Foot and mouth disease, Haemorrhagic septicaemia, Peste des petits ruminants, Trypanosomiasis
Madhya Pradesh	Black quarter, Haemorrhagic septicaemia
Maharashtra	Peste des petits ruminants
Manipur	Black quarter, Fascioliasis
Meghalaya	Black quarter, Foot and mouth disease, Haemorrhagic septicaemia, Swine fever
Mizoram	Swine fever
Nagaland	Brucellosis
Orissa	Anthrax, Black Quarter, Swine Fever, HS
Puducherry	Babesiosis, Fascioliasis, Sheep & Goat pox
Punjab	Foot and mouth disease
Rajasthan	Black Quarter, Babesiosis, FMD, HS
Tamil Nadu	Anthrax, Black Quarter, Sheep & Goat pox, PPR
Tripura	Babesiosis, Brucellosis, Sheep & Goat pox, Swine fever
West Bengal	Anthrax, Black Quarter, HS, PPR, Theileriosis

Spatial distribution of diseases reported during April-May 2015

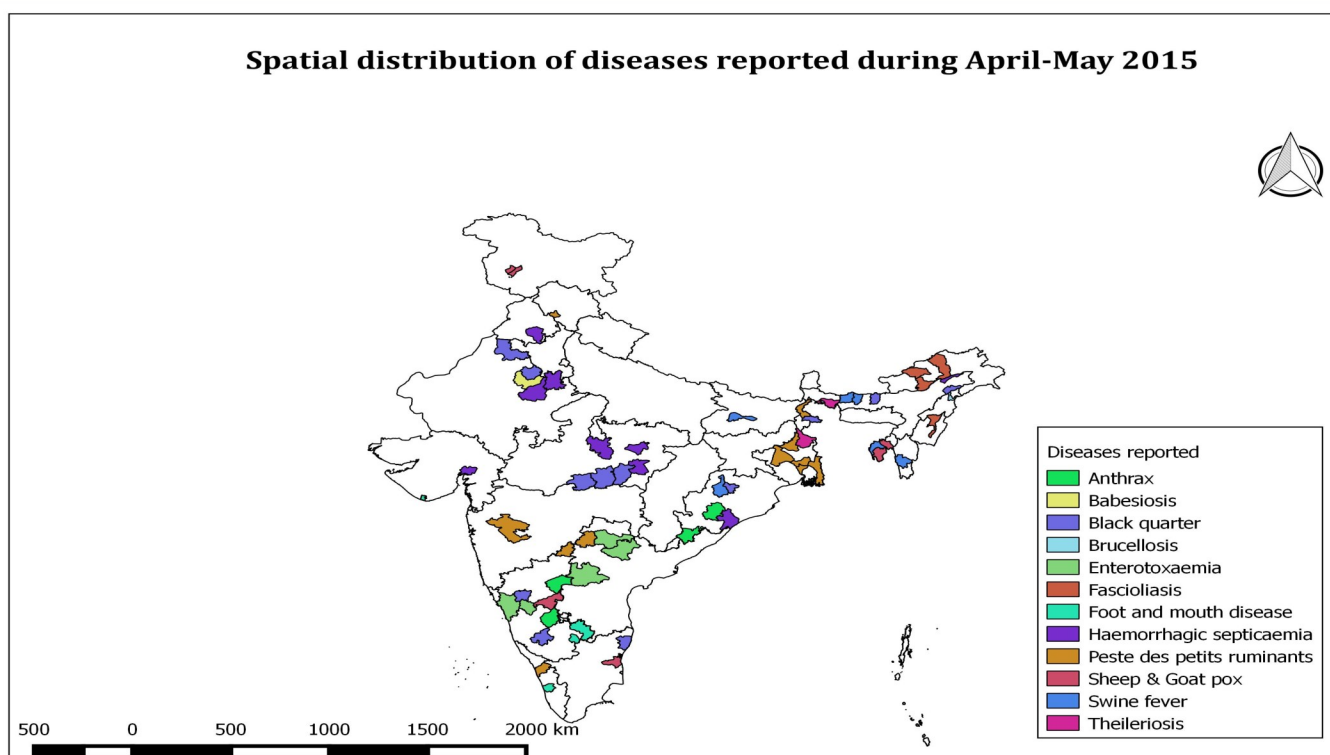


Figure 2: Spatial distribution of diseases reported during April-May 2015

Fascioliasis has been recorded from four states involving ten districts. Maximum number of outbreaks has been recorded in Arunachal Pradesh state. Assam, Manipur, and Puducherry are other states that reported the disease (Fig 2).

Foot and mouth disease has been recorded from five states involving 11 districts. Maximum number of outbreaks has been recorded in Meghalaya state. Karnataka, Kerala, Rajasthan, Daman and Diu also reported the disease (Fig 2).

Haemorrhagic septicaemia has been recorded from nine states involving 16 districts. Maximum number of outbreaks has been recorded in Rajasthan state. Kerala, Gujarat, Madhya Pradesh, Orissa, Punjab, Meghalaya, Assam and West Bengal are few other states that reported disease (Fig 2).

Peste des petits ruminants have been recorded from eight states involving 16 districts. Maximum number of outbreaks has been recorded in West Bengal state. The disease has also been reported from Andhra Pradesh, Assam, Himachal Pradesh, Karnataka, Kerala, Tamil Nadu, and Maharashtra (Fig 2).

Sheep and Goat pox has been recorded from five states involving ten districts. Maximum number of outbreaks has been recorded in Jammu and Kashmir State. Karnataka, Tamil Nadu, Tripura and Puducherry also reported Sheep and Goat pox (Fig 2).

Classical swine fever. has been recorded from six states involving ten districts. Maximum number of outbreaks has been recorded in Assam State. Bihar, Meghalaya, Mizoram Orissa, and Tripura are other states that reported disease (Fig 2).

News

Anthrax Scare near Hasanur: Even as the carcass of a 20-year-old male elephant that died of anthrax at Neerodai near Hasanur in the Sathyamangalam forest has been safely disposed, the Animal Husbandry Department is vaccinating cattle in the eight km radius as a precaution. The elephant that had died two days ago was buried on Monday in a 15-foot pit and the surface was burnt as a precaution to prevent spread of the disease to other animals. Alongside burning the surface of the spot of burial, a team also dug out half feet of the spot where the elephant was found dead, and sprinkled a mixture of turmeric and calcium, Hasanur Range Officer S. Palanisamy said. This is the second incident of elephant death due to anthrax. Last December, an adult elephant had died due to anthrax in Bhavani Sagar range (Vol. 04, No. 22, 28 May 2015)

500 Mithuns die in Arunachal district Over 500 Mithuns have reportedly died of foot-and-mouth disease (FMD) in the newly-created Kra Dadi district of Arunachal Pradesh. The All Arunachal Agriculture Horticulture Input Suppliers Registered Dealership Association, in a release, said Mithuns are dying every day due to FMD. It termed the outbreak an 'epidemic.' It urged the state veterinary department to send veterinarians and sufficient medicine to the affected areas to contain the disease. (Vol. 04, No. 18, 30 April 2015)

Telangana reports bird flu outbreak, culls poultry. The Telangana State government sounded a red alert after the highly pathogenic H5N1 bird flu virus broke out in Ranga Reddy district about 20 kilometers from Hyderabad. In the wake of the outbreak, the government swung into action and initiated a process to cull about 2 lakh birds within a 10 kilometer radius and also ban sale of poultry and eggs in Hayathnagar, the main town in the district and issued an advisory to Andhra Pradesh as well. The government also set up rapid response teams to help in the culling process. (Vol. 04, No. 16, 16 April 2015)

Bird Flu in Manipur, culling of fowl starts Bird flu or avian influenza has resurfaced in northeastern state of Manipur and the culling of poultry fowl began on Monday, official said. Manipur Chief Secretary PC Lawmkunga told reporters: "Samples of sick poultry birds from the ICAR (Indian Council of Agriculture Research) poultry unit at Lamphelpat were found to contain H5 strain of avian influenza virus." Bhopalbased National Institute of High Security Animal Diseases has confirmed the outbreak of Avian Influenza at the poultry unit of ICAR. (Vol. 04, No. 17, 23 April 2015)

Ref: <http://www.saarc-rsu-hped.org/weekly-e-info>

Epidemiological concept of the month:

Prevalence: The total number of cases with disease existing in population

$$\text{Prevalence} = \frac{\text{no. of cases}}{\text{population size}}$$

Example: If there were 25 pigs which found to be positive for Classical Swine Fever in a farm that has total of 300 pigs then the prevalence of CSF in that farm is 8.33%

Incidence: The number of new cases reported in a population during given period of time.

$$\text{Incidence} = \frac{\text{no. of new cases reported in given time period}}{\text{population at risk}}$$

Example: If there were 24 pigs which found to be positive for Classical Swine Fever during 2014-15 in a farm that has total of 300 pigs then the incidence of CSF in that farm is 8%.

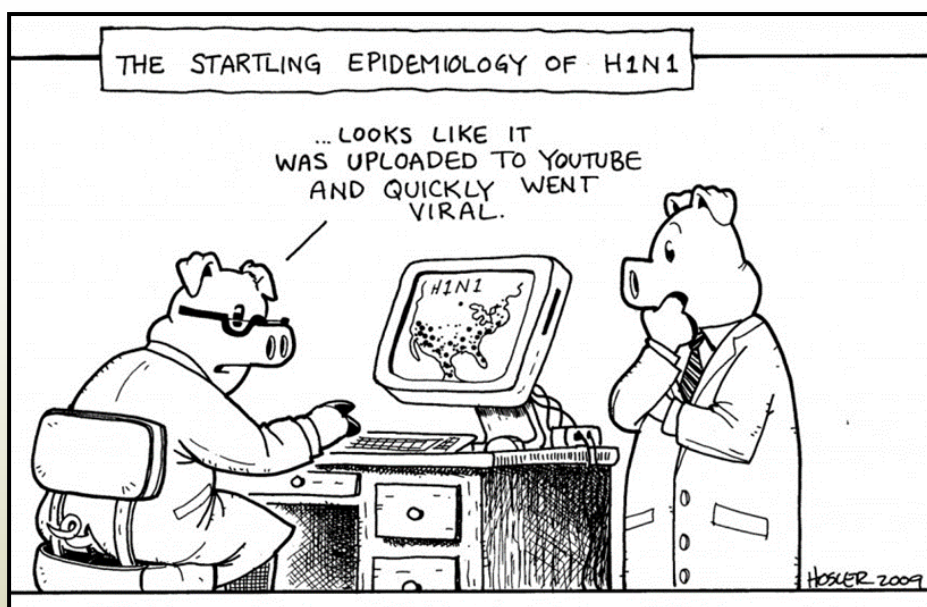
Mortality: The measure of number of deaths in a population

$$\text{Mortality} = \frac{\text{number of deaths}}{\text{Population size}}$$

Example: If there were 30 deaths due to Classical Swine Fever in a farm that has total of 300 pigs then the mortality rate due to CSF in that farm will be 10%

(Concepts taken from the text book "Veterinary Epidemiology" 3rd Edition, Michael Thrusfield, Blackwell Publishing and <https://www.health.ny.gov/diseases/chronic/basicstat.htm>)

Epidemiological cartoon



Cartoon source : <http://www.microbeworld.org/component/jlibrary/?view=article&id=1944>