From: Director General, Animal Husbandry & Dairying, Haryana, Panchkula.

To: 1. Chief Superintendent, GLF, Hisar.  
     2. All Deputy Directors, Animal Husbandry & Dairying/Intensive cattle Development Project in the State.  
     3. Deputy Director, State District Diagnostic Laboratory, Sonepat.

Subject: Advisory regarding Incidence of Glanders in the State.

Memo: Your kind attention is invited towards the confirmation of Glanders disease in 2 cases in Yamuna Nagar and 3 cases in Sonepat district. All the necessary steps like necessary precautions and zoo-sanitary measures are required to be undertaken immediately to prevent spread of the disease. All the procedures/modalities are to be followed as required under the provisions of "The Prevention and Control of Infectious and Contagious Diseases in Animals Act, 2009", a copy of which is enclosed for ready reference. In addition, minutes of the meeting of expert group on Glanders held on 26 June, 2007 at Krishi Bhawan, New Delhi under the Chairmanship of Animal Husbandry Commissioner are also enclosed for information and necessary guidance to suitably handle the situation. Further, an advisory has been devised and enclosed herewith which is to be followed for all the necessary steps to be undertaken and required surveillance.

You are further requested to keep in touch with the State District Diagnostic Laboratory, Sonepat for necessary guidance regarding sampling/surveillance etc. and follow instructions issued by them in this regard.

Please treat it as MOST URGENT.

Encl. - As above for Director General, Animal Husbandry & Dairying.

A copy is forwarded to Director, National Research Centre on Equine, Hisar for information.

for Director General, Animal Husbandry & Dairying Haryana, Panchkula.

Endst. No. AH-2 Date: 26 June 2007

A copy is forwarded to PS/PSAH for kind information of worthy Principal Secretary to Government of Haryana, Animal Husbandry & Dairying Department.

for Director General, Animal Husbandry & Dairying Haryana, Panchkula.

Endst. No. AH-2 Date: 26 June 2007
Glanders

Glanders is an infectious, highly contagious and usually fatal disease that is caused by the bacterium *Burkholderia mallei*. Glanders is primarily a disease affecting horses. It also affects donkeys and mules and can be naturally contracted by other mammals. This disease is characterized by serial development of ulcerating nodules that are most commonly found in the upper respiratory tract, lungs and skin. The disease is zoonotic and the organism is infectious for humans, with a high fatality rate in untreated septicaemia cases. The causative organism is present in nasal exudates and discharges from ulcerated skin of infected animals.

**Clinical sign of Glanders are as follows:**

After an incubation period of 3 days to 2 weeks, acutely affected animals usually have septicaemia, high fever (as high as 106°F), weight loss and subsequently, a thick, mucopurulent nasal discharge and respiratory signs. Three forms i.e. Nasal, Pulmonary and Cutaneous forms of Glanders are recognized and an animal may be affected by more than one form at a time. Inflammatory nodules and ulcers develop in the nasal passages and give rise to a sticky yellow discharge. Stellate scarring follows upon healing of the ulcers. The formation of nodular abscesses in the lungs is accompanied by progressive debility, coughing and may also be accompanied by diarrhoea. In the Cutaneous form along their course, which then ulcerate and discharge yellow pus. Nodules are regularly found in the liver and spleen, leading to wasting and death. Following steps are to be taken up for minimizing the spread of disease.

<table>
<thead>
<tr>
<th>Dos</th>
<th>Do nots</th>
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</thead>
<tbody>
<tr>
<td>1. Isolate the animal suspected for showing above symptoms</td>
<td>Do not mix sick and healthy animals</td>
</tr>
<tr>
<td>2. Keep feeding and watering trough separate for sick and healthy animals.</td>
<td>Do not share feeding/watering troughs between healthy and suspected sick animals</td>
</tr>
<tr>
<td>3. Bury the left over feed/fodder rejected by the sick animals</td>
<td>Do not throw in open, the, left over feed and fodder left by the sick animals.</td>
</tr>
<tr>
<td>4. Restrict the movement of sick animals</td>
<td>Immediately move the sick animals to designated isolated place.</td>
</tr>
<tr>
<td>5. Separate persons should handle sick and healthy animals.</td>
<td>Do not allow the same person to handle sick and healthy animals.</td>
</tr>
<tr>
<td>6. wash your hands with soap and water every time handling suspected animals/feed fodder, water through, etc.</td>
<td>Do not touch eatables without wasting hands properly.</td>
</tr>
<tr>
<td>7. Recovered animals if any be kept isolated till disposal.</td>
<td>Do not mix up the recovered ponies with the healthy stock.</td>
</tr>
<tr>
<td>8. Bury the dead animal deep underground at the designated place.</td>
<td>Do not open the carcasses of dead animals.</td>
</tr>
<tr>
<td>9. All sheds be disinfected with suitable disinfectant.</td>
<td>Do not keep healthy stock in sheds used by sick animals.</td>
</tr>
</tbody>
</table>
10. Keep close watch for symptoms like nasal and eye discharges, respiratory distress and skin sores. Do not touch eyes/nasal/wound discharges. These may contain disease Bacterium

11. Personnel having wounds, scratches and abrasions on hands should never handle sick animals. Do not handle animals if you have small cuts or wounds on hands & arms.

**Destruction of the infected animal:**

Carcasses of animals may be disposed of either by burial or burning immediately to prevent the spread of the disease. If euthanasia is to be performed, the use of Pentobarbital or a Pentobarbital combination or Magnesium Sulphate could be used.

Burning is preferred, but method of burial could also be adopted. For burial, a suitable site away from streams, rivers, canals or other water supply is to be selected. A pit of minimum 8 ft. deep is to be made. The area requirement is about 3 Sq. Yards. The dead animal is put into the pit with feet upwards which are normally folded. The carcass is covered with quick lime followed by filling of the pit. The burial area is fenced so that stray dogs do not scavenge.

**Disinfection of the premises:**

All affected areas including stables, water and feeding trough, other fittings are disinfected by use of blow lamps or by burning soiled hay and all contaminated disposable equipments and other materials, should be disinfected by using suitable disinfectants. Vacation of stables soon after the detection of first Glander case should be adopted. Personnel in close contact with the diseased animal should follow high standard of personal hygiene and strict antiseptic measures.

**Surveillance of disease:**

Surveillance should aim at:

a) Detecting the foci of the disease and
b) Estimating rate of prevalence in a population.

Extensive surveillance by the Veterinary Surgeons in the various villages/ talukas/ districts of the State need to be carried in the States. The clinical cases affected and in contact equine should be segregated appropriately and dealt as per "The Prevention and Control of Infectious and Contagious Diseases In Animals Act, 2009". Surveillance should include physical examination and sero testing depending upon the facilities available.
Advise for surveillance of in-contact animals

The in-contact animals should be kept under physical inspection and sero surveillance for a period of two months. All positive reactors showing clinical picture, positive on CF test need to be eliminated. The details of districts/Taluka indicating the total strength of horses are to be prepared of the affected districts. Mapping of routes of horses/equines around 25 kms. From the nuclei of infection is to be worked out and on defined routes where movement of horses is in vogue need to be monitored or clinical examination by Veterinary Surgeons. The topographical details of districts need to be drawn and strength of horses/equines is recorded.

a) Sampling of the in-contact animals is to be done as follows:

<table>
<thead>
<tr>
<th>Horses/mule/donkeys</th>
<th>I. 100% -5 km around the nuclei of infection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II. 20% -5 km above to 25 km. Around the nuclei of infection</td>
</tr>
<tr>
<td>Throughbreds</td>
<td>I. 100% related to all horse including race horses irrespective of the distance in State</td>
</tr>
<tr>
<td></td>
<td>II. 100% in all organized equine establishment</td>
</tr>
<tr>
<td>Studs</td>
<td>I. 100% yearlings and 100% foals</td>
</tr>
<tr>
<td></td>
<td>II. 20% mares and stallions at the Studs</td>
</tr>
</tbody>
</table>

b) Extensive physical surveillance of districts around 50 km from the nuclei of infection is to be carried out.

Banning on movement:

Movement of all horses / equines is to be restricted for 3 months from the last destruction of positive reactor horse. After 3 months based on physical examination and serological test results, the need for restriction on further movement of horses is to be decided by the State Department. If no case of Glanders is reported after six months, movement can be allowed based on sero negativity by complement fixation test. Restriction on movement should include restrictions on animal fairs dealing in equines.

Procedure for declaration of freedom from disease:

OIE guidelines need to be adopted for this purpose. Clinical examination / rising and failing titre by CFT be followed by the second test after one month. If all the horses are found negative, another test should be done within three months from the first testing. Minimum of three test in the first three months be followed by another two test within next six months are to be conducted. If all the tests are found negative, the outbreak could be considered free from infection.
Strategy for routine check up of horses:

Govt. Veterinary Hospitals in the State having reported isolated cases or sporadic outbreak of Glanders should be alerted for routine check-up for horses in the area. Suspicious case of Glanders based on clinical examination should take necessary steps for confirmation of the disease by the following agencies:

1. National Research Centre on Equines, Sirsa Road, Hisar.
2. Central Military Veterinary Laboratory, Meerut.

Samples to be collected for confirmation:

In general, following samples are to be collected and sent to laboratory for diagnosis of Glanders:-

i) Swabs of the exudates from the nostrils.
ii) Section of nodular lesions/ lymphnodes
iii) Air dried smears of exudates.
iv) A paired Serum samples.

Material is to be submitted to the State Disease Diagnostic Laboratory, Sonepat.

All the procedures/modalities as provided under "The Prevention and Control of Infectious and Contagious Diseases In Animals Act, 2009" shall be followed strictly.

Note:- I State Disease Diagnostic Laboratory, Sonepat shall be duty bound to further circulate supplementary advisory/guidelines, if required, and latest updates for proper methods of collection and dispatch of clinical samples for diagnosis of Glanders.

II All the District Deputy Directors shall remain in close contact with District Administration, Police authorities, District Health Authorities, Local Bodies and State Disease Diagnostic Laboratory, Sonepat regarding incidence of Glanders for all the necessary assistance as and when required.
An Act to provide for the prevention, control and eradication of infectious and contagious diseases affecting animals, for prevention of outbreak or spreading of such diseases from one State to another, and to meet the international obligations of India for facilitating import and export of animals and animal products and for matters connected therewith or incidental thereto.

WHEREAS economic losses due to infectious and contagious diseases of animals are enormous in the country with some of these diseases constituting a serious threat to the public;

AND WHEREAS many of such animal diseases can be largely prevented by judicious implementation of vaccination programmes or by taking other appropriate and timely measures on scientific lines;

AND WHEREAS such measures are necessary to facilitate the import and export of animals and animal products and to keep in tune with international practices;

AND WHEREAS it has been realised that the prevention, control and eradication of infectious and contagious diseases of animals from India has to be tackled on a national basis so as to avoid adverse impact of such diseases on the economy of the country and for this purpose harmonise the control procedures and to prevent inter-State transmission of animal diseases;

AND WHEREAS the national level handling has to be done with the active involvement of the State Governments, particularly in regard to the precautionary measures required to...
be taken within their jurisdiction in respect of certain infectious and contagious diseases and the regulation of movement of animals outside their respective areas by timely adoption of appropriate measures;

AND WHEREAS India is a Member Country of the Office International Des Epizooties, Paris and it is necessary to implement the general obligations, decisions and recommendations of the said Organisation and abide by the International Animal Health Code stipulated by the said Organisation;

BE it enacted by Parliament in the Sixtieth Year of the Republic of India as follows:—

CHAPTER I
PRELIMINARY

1. (1) This Act may be called the Prevention and Control of Infectious and Contagious Diseases in Animals Bill, 2009.

(2) It shall come into force on such date as the Central Government may, by notification, appoint; and different dates may be appointed for different States or for different areas therein as well as for different provisions of this Act, and any reference in any such provision of this Act to the commencement of this Act shall be construed in relation to any State or area or provision as a reference to the coming into force of this Act or, as the case may be, of that provision, in such State or area.

2. In this Act, unless the context otherwise requires,—

(a) "animal" means,—

(i) cattle, buffalo, sheep, goat, yak, mithun;
(ii) dog, cat, pig, horse, camel, ass, mule, poultry, bees; and
(iii) any other animal or bird as the Central Government may, by notification, specify;

(b) "Check Post" means any place established as such by the Director to carry out checking of animals for the purpose of this Act;

(c) "Competent Officer" means any person or officer of the Government notified as a Competent Officer under section 17;

(d) "compulsory vaccination" means vaccination of any animal against any scheduled disease in respect of which vaccination is made mandatory under the provisions of this Act;

(e) "controlled area" means any local area which has been declared as such by the State Government under sub-section (1) of section 6;

(f) "defective vaccine" means any vaccine which is expired, breach in seal, contaminated, improperly stored, unlabelled or with mutilated label;

(g) "Director", in relation to a State, means any officer in charge of the Department of Animal Husbandry or Veterinary Services, or both, notified by the State Government as such for the purpose of this Act;

(h) "free area" means any controlled area which has been declared as such under sub-section (5) of section 6;

(i) "infected animal" means an animal which is infected with any scheduled disease;

(j) "infected area" means an area declared as such under section 20;

(k) "notification" means notification published in the Official Gazette;

(l) "prescribed" means prescribed by rules made under this Act;

(m) "publication" includes propagation of information through the media or newspaper or any other mass media and the means of local communication such as declaration in loud voice and by beating drums in the area;

(n) "Quarantine Camp" means any place declared to carry out quarantine of animals and birds for the purpose of this Act;

(o) "scheduled disease" means any disease included in the Schedule;

(p) "Veterinarian" means a person having a recognised veterinary qualification who, under the law for the time being in force, is allowed to treat animal diseases;

(q) "Veterinary Officer" means any officer, appointed as such by the State Government under clause (b) of section 3;

(r) "Village Officer", in relation to a village, means any person who is authorised or designated as such in accordance with the qualifications prescribed by the State Government.
CHAPTER II
CONTROL OF SCHEDULED DISEASES

3. The State Government may, by notification, appoint—
   
   (a) such number of persons, as it deems proper, to be Veterinarians to undertake inspection and specifying the local limits of their respective jurisdiction; and
   
   (b) such number of Veterinarians, as it deems proper, to be Veterinary Officers, who shall exercise their powers and discharge their duties within the local limits of their jurisdiction as may be specified in the said notification.

4. (1) Every owner, or any other person, non-governmental organisation, public bodies or the village panchayat, in charge of any animal which he or it has reason to believe to be infective of a scheduled disease shall report the fact to the Village Officer or village panchayat in-charge, who may report the same in writing to the nearest available Veterinarian.

   (2) The Village Officer shall visit the area falling within his jurisdiction for reporting any outbreak of the disease.

   (3) Every Veterinarian shall, on receipt of a report under sub-section (1), or otherwise, if he has reason to believe that any animal is infected with a scheduled disease, report the matter to the Veterinary Officer.

   (4) Where in any State there is any occurrence of scheduled disease in relation to any animal, the Director shall send an intimation to the Directors of the States which are in the immediate neighbourhood of the place where there is such occurrence, for taking appropriate preventive measures against the spread of the disease.

5. (1) Every owner or person in charge of an animal, which he has reason to believe is infective of a scheduled disease, shall segregate such animal and have it kept in a place away from all other animals which are healthy, and take all possible steps to prevent the infected animal from coming in contact with any other animal.

   (2) The owner or other person in charge of, or having control over, the animal referred to in sub-section (1) shall confine that animal and prevent it from grazing in a common place or to drink water from any common source including a vessel, pond, lake or river.

   (3) All other infected animals shall be segregated by the Municipality, Panchayat or other local administration.

6. (1) The State Government may, with the object of preventing, controlling or eradicating any scheduled disease, by notification, declare any area to be a controlled area in respect of any scheduled disease affecting any species of animal and any other species that may be susceptible to the disease specified in the said notification.

   (2) The State Government shall also cause the substance of the notification issued under sub-section (1) to be published in a local newspaper in the vernacular language and by declaration in loud voice and by beating drums in the area.

   (3) Where a notification has been issued under sub-section (1), all animals of the species in the controlled area shall be subjected to compulsory vaccination against that disease, and be subjected to such other measures against the disease, in such manner and within such time as the State Government, may, by public notice, direct.

   (4) The State Government shall make available necessary vaccine and it shall be obligatory on the part of every owner, or the person in charge of an animal which is required to be vaccinated under sub-section (3), to get the animal compulsorily vaccinated.

   (5) Where the State Government is satisfied, on a report received from the Director or otherwise, that, in any controlled area, any of the scheduled diseases affecting any species of animal is no longer prevalent, it may, by notification, declare the area to be a free area in respect of that disease in relation to the particular species of animal.

   (6) Where a notification has been issued under sub-section (5), no animal of the species or of any other susceptible species with regard to which it is a free area shall be allowed to enter the free area unless duly immunized by vaccination against that particular disease.

7. (1) Where a notification has been issued under sub-section (1) of section 6 declaring any area as a controlled area in relation to any disease affecting any species of animals, no animal belonging to that species shall be moved from the place where it is kept.

   (2) The Director may, for the purpose of control, prevention or eradication of any scheduled disease, in respect of any area, by order published in the Official Gazette, prohibit the movement of all animals belonging to any species specified therein, from the place where it is kept, to any other place.
(3) Nothing contained in sub-sections (1) and (2) shall be deemed to prohibit—

(a) the movement of any animal referred to therein, from the place where it is kept, to the nearest place where it can be got vaccinated, so long as the animal is being moved for the purpose of its immunization by vaccination; or

(b) the movement of any such animal, so long as it is accompanied by a valid certificate of vaccination to indicate that the animal is duly immunized against the particular disease and it bears proper mark of such vaccination.

8. (J) The vaccine to an animal may be administered by any person competent under the law for the time being in force to administer it, and issue a certificate of administration of vaccination.

(2) Where any animal has been vaccinated for any scheduled disease in compliance with the provisions of sub-section (J), the person vaccinating the animal shall cause to put a mark by branding, tattooing or ear tagging, or in such other manner as the Director may, by general or special order, direct and the same shall, unless otherwise specified by the Director, shall not be removed.

(3) The authority issuing a certificate of vaccination shall specify the date of vaccination, dates of manufacture and expiry of the vaccine and the date up to which the vaccination of the animal with the particular vaccine shall be valid.

9. Every vaccination certificate issued under this Act shall be in such form and shall contain such particulars as may be prescribed by the Central Government.

10. (I) Where any area has been declared as a controlled area under sub-section (1) of section 6 in respect of any disease affecting any species of animals, no animal belonging to that species shall be taken out of, or brought into that area save as provided in section 16.

(2) The Director may, by notice duly published in the Official Gazette and at least in one daily local newspaper in vernacular language, extend the prohibition contained in sub-section (I) to any other species of animals, if animals belonging to that species are also likely to be infected with that disease.

(3) No carrier of goods or animal shall carry any animal from or out of a controlled area, free area or infected area by land, sea or air unless he complies with the provisions of section 16.

(4) Nothing contained in sub-sections (1) to (3) shall apply to the carriage by railway of any animal referred to in those sub-sections through any area which, for the time being, is declared as a controlled area or infected area so long as the animal is not unloaded (for whatsoever purpose or duration) in any place within that area:

Provided that the State Government may, by notification, declare that any species of animal so carried through any local area within the State shall be duly immunized against such scheduled disease, in such manner and within such time as may be specified in that notification and a certificate of vaccination shall be a pre-requisite for the transportation of the animals by the railways through that area:

Provided further that, where any notification as referred to in the first proviso has been issued, it shall be incumbent on the State Government to intimate that fact to the concerned railway authorities so as to enable them to satisfy themselves about the immunization of the animal before transporting it through the local area of the State.

11. No person shall take out of the controlled area—

(a) any animal, alive or dead, which is infected with, or reasonably suspected to have been infected with, any scheduled disease notified under sub-section (J) of section 6,

(b) any kind of fodder, bedding or other material which has come into contact with any animal infected with such disease or could, in any manner, carry the infection of the notified disease, or

(c) the carcass, skin or any other part or product of such animal.
12. No person, organisation or institution shall hold any animal market, animal fair, animal exhibition and carry on any other activity which involves grouping or gathering of any species of animals within a controlled area:

Provided that the Competent Officer may, suo motu or on application made to him in this behalf, relax the prohibition in relation to any species of animals, in a case where animals belonging to that species are not susceptible to the scheduled disease and are incapable of carrying it, if he is satisfied that in the public interest it is necessary to accord such relaxation.

13. No person shall bring or attempt to bring into market, fair, exhibition or other congregation of animals or to any public place, any animal which is known to be infected with a scheduled disease.

14. (1) The Director may establish as many Quarantine Camps and Check Posts within the State as may be required—

(a) for the detention of animals suffering from any scheduled disease or of animals which have come into contact with or have been kept in the proximity of any such infected animal;

(b) for ensuring the prevention of entry into or exit from any controlled area or infected area or free area, of any animal belonging to the species of animals in respect of which a notification, issued under sub-section (1) of section 6, or an order issued under sub-section (2) of section 7, is in force.

(2) Any animal which is required to be detained, inspected, vaccinated, or marked, may be kept in the Quarantine Camp for such period as the Competent Officer may direct.

(3) Every animal detained at a Quarantine Camp shall be under the custody of the person in charge of the camp, and shall be vaccinated and marked.

(4) The officer in charge of the Quarantine Camp shall, at the time of release of an animal from the station, grant a permit, in such form as may be prescribed by the State Government, to the person taking charge of the animal, and every such person shall be bound to produce the permit whenever required to do so by any Competent Officer.

15. (1) Every person in charge of any Check Post or Quarantine Camp shall inspect any animal stopped at the Check Post, or detained therein or at the Quarantine Camp.

(2) The manner of inspection and the period of detention of the animal at the Check Post or at the Quarantine Camp for the purpose of inspection or for the administration of compulsory vaccination, the marking of animals and the form and manner in which permit for entry in respect of any animal may be issued, shall be such as may be prescribed by the State Government.

16. Notwithstanding anything contained in section 10, an animal belonging to the species of animals in respect of which an area has been declared as a controlled or free area in relation to any scheduled disease, which has been duly vaccinated against that disease, shall be allowed to enter into or be taken out of the controlled area or free area, or to be taken out of any other place on the production of a certificate to the effect that vaccine against that disease has been administered and a period of not less than twenty-one days has elapsed thereafter.

17. The State Government may, for the proper implementation of the provisions of this Act, by notification, authorise any person to exercise any power or discharge any duty as a Competent Officer, under this Act, who shall exercise such powers and such duties within the local limits of his jurisdiction as may be specified in the notification.
Every common carrier whether a vessel or vehicle shall be cleaned and disinfected immediately before and after the transportation of any animal in that vessel or vehicle, and so also any other place where the animal has been kept in transit.

Where any area has been declared as a controlled area or free area in respect of any scheduled disease affecting any species of animal, the Director may, by an order duly published in the Official Gazette and in a local newspaper in the vernacular language, direct the owner of every vehicle in which any animal belonging to that species is carried, to have the vehicle properly cleaned and disinfected.

Any Veterinary Officer or other Competent Officer may enter upon and inspect any land or building or place, vessel or vehicle, for the purpose of ensuring compliance of the provisions of this Act or the rules or orders made thereunder, by the persons responsible for such compliance.

CHAPTER III

INFECTED AREAS

If the Veterinary Officer, upon receipt of a report from a Veterinarian or otherwise, is satisfied that in any place or premises falling within his jurisdiction, an animal has been infected with any scheduled disease, or that an animal, which has reason to believe has been so infected, is kept, may, by notification and publication in at least one local newspaper in the vernacular language and by declaration in loud voice and by beating drums, declare such area as he may deem fit (including the place or premises aforesaid) to be an infected area.

Where an area has been declared as an infected area under section 20, all provisions of this Act which are applicable in relation to a controlled area shall mutatis mutandis apply thereto as if for the words "controlled area", the words "infected area" have been substituted.

Without prejudice to the generality of the provisions contained in sub-section (1), the following further provisions shall apply in relation to an infected area, namely:—

(a) in respect of every animal in that area which is infected or reasonably believed to be infected, with any scheduled disease, the owner or other person in charge of the animal, shall forthwith get it treated by a Veterinarian;

(b) all articles, which are likely to have come into contact with any animal referred to in clause (a), shall be treated or disposed off in such a manner as the Veterinarian may direct;

(c) every Veterinarian shall, for the purpose of inspection, have the power to enter any place or premises where any animal is kept or is likely to be kept;

(d) the owner or any other person in charge of the animal referred to in clause (a) shall keep the animal in isolation forthwith, and also take such other measures as may be necessary for the prevention, treatment and control of the disease as the Veterinarian may direct.

If the Veterinary Officer, after such enquiry as he may deem fit, is satisfied that there is no longer the threat or danger of any animal being infected with the scheduled disease in any infected area, by notification and publication in a local newspaper in vernacular language, declare that the area is no longer an infected area as aforesaid, whereupon all the restrictions referred to in section 21 shall cease to apply.

CHAPTER IV

INFECTED ANIMALS

Where the Veterinarian has, on receipt of a report or otherwise, reason to believe that any animal is infected with a scheduled disease, he may, by order in writing, direct the owner or any other person in charge of such animal—

(a) to keep it segregated from other apparently healthy animals; or

(b) to subject it to such treatment as may be required under the circumstances.
(2) Where any action has been taken in pursuance of sub-section (1), the Veterinarian shall forthwith give a detailed report of the incidence of the disease to the Veterinary Officer.

(3) On receipt of a report from the Veterinarian, the Veterinary Officer shall, as soon as possible, examine the animal as well as any other animal which could have come in contact with it, and for that purpose, submit the animal to such test and medical examination as may be required under the circumstances.

(4) If, after such test and examination, the Veterinary Officer is of the opinion that an animal is not infected with any of the scheduled diseases, he shall issue a certificate in writing that the animal is not infected with any such disease.

24. (1) Where the Veterinary Officer considers it necessary for the purpose of ascertaining whether the animal which is suspected to have been infected with any scheduled disease or susceptible to such infection is actually infected, or for the purpose of ascertaining the nature of the scheduled disease with which an animal is infected, he may draw such samples, as may be required, from the animal for the purpose of carrying out such investigations as he may deem necessary under the circumstances.

(2) The Veterinary Officer or any other Competent Officer shall draw samples from any animal for the purposes of ascertaining whether the animal has been vaccinated against any disease, or whether the vaccination of the animal has been effective in conferring immunity and have the samples examined, in such manner as he may deem necessary.

25. If the Veterinary Officer deems it necessary that an animal, which is infected with a scheduled disease, euthanasia has to be resorted to, for preventing the spread of the disease to other animals in the area or to protect public health if the disease is of zoonotic importance, he may, notwithstanding anything contained in any other law for the time being in force, by an order in writing, direct euthanasia of the animal and the carcass disposed of immediately to his satisfaction.

26. Every person in possession of carcass (or any part thereof) of any animal, which, at the time of its death, was infected with any scheduled disease or was suspected to have been infected, shall dispose it of in such manner as may be prescribed.

27. (1) Where the Veterinary Officer or any Veterinarian has reason to believe that the death of an animal has been caused by an infection of any scheduled disease, he may make or cause to be made a post-mortem examination of the animal and for that purpose he may cause the carcass of any such animal to be exhumed where required followed by proper disposal after necessary examination and post-mortem.

(2) Every examination and post-mortem referred to in sub-section (1) shall be conducted in such manner, and the report of post-mortem shall be in such form, as may be prescribed.

28. Where any animal which is infected or suspected to have been infected is found without any person claiming to be its owner, or where a valid order or direction given in relation to any such animal is not promptly complied with by the owner or other person in control of the animal, it shall be open to the Veterinary Officer or any other Competent Officer, to seize the animal and remove it to a place of isolation or segregation, as he may deem proper.

CHAPTER V
ENFORCEMENT AND PENALTIES

29. (1) Where by any rule, notification, notice, requisition, order or direction made under this Act, any person is required to take any measure or to do anything—

(a) in respect of any animal, carcass of any animal or other thing in his custody or charge, the same shall be promptly complied with by that person;

(b) in case of any stray or ownerless animal, carcass of such animal or parts thereof, the same shall be promptly complied with by the municipality or Panchayat, as the case may be, at its cost.
Village Officers, etc., to assist.

(2) If the measures as referred to in sub-section (1) are not taken within such time as may be allowed for the purpose, the authority issuing the notice, requisition, order or direction, may cause the measures to be taken at the cost of the person or municipality or Panchayat, as the case may be, who or which was required to take the measures.

(3) The costs of any measures taken under sub-section (2), shall be recoverable from the person or the municipality or Panchayat, as the case may be, concerned in the manner provided by the Code of Criminal Procedure, 1973, for the recovery of fines imposed by a Court, as if such costs were a fine imposed by a Court.

Penalties.

30. All Municipal, Panchayat or Village Officers and all officers of the rural and dairy development, revenue, agriculture, animal husbandry and veterinary departments of the State Government, shall be bound—

(a) to give immediate information to the Veterinary Officer and to the Veterinarian having jurisdiction in the area regarding the prevalence of a scheduled disease amongst any animal or species of animals, in the area;

(b) to take all necessary measures to prevent the outbreak or spread of any scheduled disease; and

(c) to assist the Veterinary Officer and the Veterinarian in the discharge of their duties or in the exercise of their powers under this Act.

31. If any person issues a vaccination certificate,—

(a) without authority or competence in that behalf, or

(b) after administering the vaccine which is known to be defective in any manner,

he shall be guilty of an offence punishable with a fine of five thousand rupees or in case of non-payment of fine with imprisonment which may extend to one month, and in the case of any subsequent offence, with fine often thousand rupees or with imprisonment which may extend to three months.

32. Any person who contravenes the provisions of this Act or obstructs the Competent Officer in performing his duties shall be guilty of an offence punishable with fine which may extend to one thousand rupees, and in case of failure to pay the penalty with imprisonment for a term which may extend to one month, and in the case of any subsequent offence, with fine often thousand rupees or with imprisonment which may extend to three months.

33. Whoever places or causes or permits to be placed in any river, lake, canal or any other water body, the carcass or any part of the carcass of any animal which at the time of its death was known to be infected, shall be guilty of an offence and, on conviction, be punished, in the case of a first offence with fine of two thousand rupees or with imprisonment of one month in case of non-payment of fine and in the case of subsequent conviction with a fine of five thousand rupees or imprisonment for a term which may extend to three months or with both.

34. (J) Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded and punished accordingly:

Provided that nothing contained in this sub-section shall render such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.
(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purposes of this section,—

(a) "company" means any body corporate and includes a co-operative society registered or deemed to be registered under any law for the time being in force, a firm or other association of individuals; and

(b) "director", in relation to a firm, means a partner in the firm.

CHAPTER VI
PRECAUTIONARY MEASURES ON CAUSATIVE ORGANISM, ETC.

35. (1) In every institution, laboratory or clinic, engaged in the manufacture, testing or research, related to vaccines; sera, diagnostics or chemotherapeutic drugs and aimed at the prevention or treatment of any scheduled disease, adequate precautionary measures shall be taken—

(a) to ensure that the causative organism of any scheduled disease does not escape or otherwise get released;

(b) to guard against any such escape or release; and

(c) to warn and to protect everyone concerned in the event of any escape.

(2) Notwithstanding anything contained in any other law for the time being in force, every animal—

(a) used for the manufacture, testing or research as referred to sub-section (1), or

(b) which is likely to carry or transmit any scheduled disease,

shall be promptly administered euthanasia and disposed of by the person in charge of or having control of the institution, laboratory or clinic, as the case may be, referred to in that sub-section.

(3) Every person who is in charge of or having control of an institution, laboratory or clinic referred to in sub-section (1) comply with the provisions of sub-section (1) and sub-section (2); and in the event of non-compliance he shall be guilty of an offence punishable with fine which may extend to twenty thousand rupees or imprisonment for a term which may extend to six months or with both, and in case the establishment is in commercial manufacturing of vaccines or medicine, a temporary suspension of licence up to a period of one year may also be imposed.

CHAPTER VU
MISCELLANEOUS

36. The State Government may, by notification, delegate to any officer or authority subordinate to it, all or any of the powers conferred on it by or under this Act, except the powers to make rules under sub-section (2) of section 42.

37. All officers and authorities under this Act shall exercise their powers and discharge their duties conferred or imposed on them by or under this Act, in accordance with such orders, not inconsistent with the provisions of this Act, as the Central Government or the State Government may, from time to time, make.

38. (1) The Central Government may, by notification, add to, or omit from the Schedule any animal disease and the said disease shall, as from the date of the notification, be deemed to have been added to, or omitted from, the Schedule.

(2) Every notification issued under sub-section (1) shall, as soon as may be after it is issued, be laid before each House of Parliament.
39. The Central Government may, with the object of prevention, control and eradication of any infectious or contagious disease of animals, issue such directions to the State Government or other authorities under this Act, from time to time, including directions for furnishing such returns and statistics on scheduled diseases, and vaccination, as it may deem fit and every such direction shall be complied with.

40. Every Competent Officer, Director and Veterinary Officer, while exercising any power or performing any duty under this Act, shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code.

41. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act, as appear to it to be necessary or expedient for removing the difficulty:

Provided that no such order shall be made after the expiry of a period of two years from the date of commencement of this Act.

(2) Every order made under this section shall, as soon as may be after it is made, be laid before each House of Parliament.

42. (1) The Central Government may, subject to the condition of previous publication, by notification, make rules for carrying out the provisions of this Act.

(2) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—

(a) the form of vaccination certificate and the particulars which such certificate shall contain, under section 9;

(b) the manner of disposal of carcass, under section 26;

(c) the manner of conducting examination and post-mortem under sub-section (1) and the form of report of post-mortem under sub-section (2) of section 27;

(d) any other matter which may be prescribed or in respect of which rules are required to be made by the Central Government.

43. (1) The State Government may, by notification and with the prior approval of the Central Government, make rules for carrying out the purposes of this Act.

(2) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—

(a) the form of permit to be granted by the officer in charge of a Quarantine Camp, under sub-section (4) of section 14;

(b) the manner of inspection and the period of detention of an animal at a Check Post or at a Quarantine Camp for the administration of compulsory vaccination and marking of animals and the form and manner of issue of entry permit, under subsection (2) of section 15;

(c) any other matter in respect of which rule is to be or may be made by the State Government.

44. (1) Every rule made by the Central Government under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

(2) Every rule made by the State Government under this Act shall be laid, as soon as may be after it is made, before the State Legislature.
45. On the commencement of this Act—

(i) The Glanders and Farcy Act, 1899;

(ii) The Dourine Act, 1910; and

(iii) any other corresponding law of any State, so far as it is inconsistent with the provisions of this Act,

shall stand repealed:

Provided that nothing contained in this section shall—

(a) affect the previous operation of any such provision of law or anything duly done or suffered thereunder;

(b) affect any right, privilege, obligation or liability acquired, accrued or incurred under any such provision of law;

(c) affect any penalty, forfeiture or punishment incurred in respect of any offence committed against any such provision of law; or

(d) affect any investigation, legal proceeding or remedy in respect of any such right, privilege, obligation, liability, penalty, forfeiture or punishment as aforesaid; and every such investigation, legal proceeding or remedy may be continued, instituted or enforced, and any such penalty, forfeiture and punishment may be imposed, as if the aforesaid provisions of law had continued:

Provided further that, anything done or any action taken under any such provision of law, including any notification, order, notice or receipt issued or declaration made, shall in so far as it is not inconsistent with the provisions of this Act, be deemed to have been done, taken, issued or made under the corresponding provisions of this Act, and shall continue in force accordingly, unless and until superseded by anything done or any action taken under this Act.
THE SCHEDULE

[See sections 2 (o) and 38]

(a) Multiple species diseases

1. Anthrax.
2. Aujeszky’s disease.
4. Brucellosis.
5. Crimean Congo haemorrhagic fever.
7. Foot and mouth disease.
8. Heartwater.
10. Leptospirosis.
11. New world screwworm (*Cochliomyia hominivorax*).
12. Old world screwworm (*Chrysomya bezziana*).
13. Paratuberculosis.
14. Q fever.
15. Rabies.
16. Rift Valley fever.
17. Rinderpest.
18. Trichinellosis.
19. Tularemia.
20. Vesicular stomatitis.
21. West Nile fever.

(b) Cattle diseases

1. Bovine anaplasmosis.
2. Bovine babesiosis.
5. Bovine tuberculosis.
7. Contagious bovine pleuropneumonia.
8. Enzootic bovine leucosis.
9. Haemorrhagic septicaemia.
10. Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis.
11. Lumpy skin disease.
12. Malignant catarrhal fever.
13. Theileriosis.
14. Trichomonos.
15. Trypanosomosis.
(c) **Sheep and goat diseases**

1. Caprine arthritis/encephalitis.
2. Contagious agalactia.
3. Contagious caprine pleuropneumonia.
4. Enzootic abortion of ewes (ovine chlamydiosis).
5. Maedi-visna.
7. Ovine epididymitis (*Brucella ovis*).
8. Peste des petits ruminants.
9. Salmonellosis (*S. abortusovis*).
10. Scrapie.
11. Sheep pox and goat pox.

(d) **Equine diseases**

1. African horse sickness.
2. Contagious equine metritis.
3. Dourine.
4. Equine encephalomyelitis (Eastern).
5. Equine encephalomyelitis (Western).
7. Equine Influenza.
8. Equine piroplasmosis.
9. Equine rhinopneumonitis.
10. Equine viral arteritis.
11. Glanders.
12. Surra (*Trypanosoma evansi*).
13. Venezuelan equine encephalomyelitis.

(e) **Swine diseases**

1. African swine fever.
2. Classical swine fever.
3. Nipah virus encephalitis.
4. Porcine cysticercosis.
5. Porcine reproductive and respiratory syndrome.
7. Transmissible gastroenteritis.

(✓) **Avian diseases**

1. Avian chlamydiosis.
2. Avian infectious bronchitis.
3. Avian infectious laryngotracheitis.
4. Avian mycoplasmosis (*M. gallisepticum*).
5. Avian mycoplasmosis (*M. synoviae*).
6. Duck virus hepatitis.
7. Fowl cholera.
8. Fowl typhoid.
10. Infectious bursa disease (Gumboro disease).
13. Pullorum disease.
14. Turkey rhinotracheitis.

(g) Lagomorph diseases
1. Myxomatosis.
2. Rabbit haemorrhagic disease.

(h) Bee diseases
1. Acarapisosis of honey bees.
3. European foulbrood of honey bees.
4. Small hive beetle infestation (Aethina tumida).
5. *Tropilaelaps* infestation of honey bees.

(1) Fish diseases
1. Epizootic haematopoietic necrosis.
2. Infectious haematopoietic necrosis.
3. Spring viraemia of carp.
4. Viral haemorrhagic septicemia.
5. Infectious pancreatic necrosis.
6. Infectious salmon anaemia.
7. Epizootic ulcerative syndrome.
8. Bacterial kidney disease (*Renibacterium salmoninarum*).
9. Gyrodactylosis (*Gyrodactylus salaris*).

(j) Mollusc diseases
1. Infection with *Bonamia ostreae*.
2. Infection with *Bonamia exitiosa*.
3. Infection with *Marteilia refringens*.
4. Infection with *Mikrocytos mackini*.
5. Infection with *Perkinsus marinus*.
6. Infection with *Perkinsus olseni*.
7. Infection with *Xenohaliotis californiensis*.

(k) Crustacean diseases
1. Taura syndrome.
2. White spot disease.
3. Yellowhead disease.
4. Tetrahedral baculovirosis (*Baculovirus penaei*).
5. Spherical baculovirosis (*Penaeus monodon*-type baculovirus).
6. Infectious hypodermal and haematopoietic necrosis.
7. Crayfish plague (*Aphanomyces astaci*).

(✓) Other diseases
1. Camelpox.
2. Leishmaniosis.

N.L. MEENA,
Additional Secretary to the Govt. of India
To

All the Participants as per list enclosed in the Anexure.

Subject:: Minutes of the meeting of Expert Group on Glanders held on 25th June 2007 at Krishi Bhawan, New Delhi.

Sir,

A meeting of Expert group on Glanders was held under the chairmanship of Dr. S.K. Bandhapadhaya, Animal Husbandry Commissioner, on 25th June 2007 at Krishi Bhawan, New Delhi.

I am forwarding herewith the minutes for your information and necessary follow-up action.

Yours faithfully,

(S.K.Dutta)
Assistant Commissioner (RP)
Minutes of the meeting of Expert Group on Glanders on 25th June, 2007 at 11.00 AM in Committee Room No. 1, Krishi Bhavan, New Delhi

The Expert Group on Glanders attended the meeting on 25th June, 2007 held at Krishi Bhavan, New Delhi. A list of participants is enclosed.

At the beginning, the States having incidences of Glanders presented the status of the disease and measures taken to control the same. It was informed to the Expert Group that the disease was notified in Maharashtra in August, 2006 which continued till September, 2006 and there is no incidence of Glanders in the State since October, 2006. The surveillance strategy adopted by Maharashtra was also discussed.

The Expert Group discussed various issues of Glanders at length and recommended both short term and long term measures to attain freedom against Glanders in the States which reported sporadic cases of Glanders periodically.

Immediate combat measures:

1. Notification of Glanders: Notification of Glanders in the state after the detection and confirmation of Glanders cases is important for speedy control of the disease in the States as per the requirement laid down under the Glanders & Farcy Act 1899. Declaration of the Glanders should preferably be based on laboratory investigation as per OIE recommendations.

2. Implementation of Glanders and Farcy Act and framing of rules:

Glanders in India is a notifiable disease under the Glanders & Farcy Act, 1899. Therefore, the judicious implementation of this act which has the provision of framing the rules by the State authorities should be aimed at. The States could immediately adopt the combat measures depending upon the sources available with State Veterinary Services.

The State authorities have to appoint suitable inspectors in various part of the State under the Act, who could, exercise and perform the powers conferred on them to implement their duties. The description for the diseased horse as per the Act, need to be defined for clarity to the field veterinarians. The State Department need to develop various declaration forms for effective implementation of the Act, e.g. for certification of horse, removal of incense, disposal of horse, necessary disinfection of area and belonging of the horse, etc.

The rules framed by the Bombay Govt. called the Bombay Glanders and Farcy Rules, 1920, provided the provision for developing such forms which can be referred to.
(i) **Destruction of the infected horse:**

Carcasses of horses may be disposed of either by burial or burning immediately to prevent the spread of the disease.

If euthanasia is to be performed, the use of Pentobarbital or a Pentobarbital combination could be used. The standard dose of thiopental sodium is 1 gram / 100 kg. bodyweight. The same could be increased or decreased depending upon the susceptibility of the horses.

Burning is preferred, but method of burial could also be adopted. For burial, a suitable site away from streams, river, canals or other water supply is to be selected. A pit of minimum 8 ft. deep is to be made. The area requirement is about 3 sq. yards. The dead animal is put into the pit with feet upwards which are normally foaled. The carcass is covered with quick lime followed by filling of the pit. The burial area is fenced so that stray dogs do not scavenger.

(ii) **Disinfection of the premises:**

All affected areas including stables, water and feeding troughs, other fittings are disinfected by use of blow lamps or by burning soiled hay and all contaminated disposable equipments and other materials. The suitable disinfectants can be used. Vacation of stables and soon after the detection of first Glander case should be adopted.

Personnel in close contact with the diseased animal should follow high standard of personal hygiene and strict antiseptic measures.

3. **Surveillance of disease:**

Surveillance should aim at:

a) Detecting the foci of the disease and
b) Estimating rate of prevalence in a population.

Extensive surveillance by the designate inspectors in various villages / talukas / stricts of the state need to be carried out by the Department of Animal Husbandry of the affected states. The clinical cases affected and in contact equine should be segregated appropriately and dealt under the Glanders and Farcy Act. Surveillance should include physical examination and sero testing depending upon the facilities available. The in-contact animals should be subjected to mullein testing within 30 days after the first testing. Complement fixation test could be used wherever possible. Mallein testing in thoroughbred horses to be avoided because of implication in international trade and movement. The SOPs are already in place for thoroughbred horses.
4. **Advise for surveillance of in-contact animals**:

The in-contact animals should be under physical inspection and sero surveillance for a period of two months. All positive reactors showing clinical picture, positive on CF test and or mallein test need to be eliminated.

The details of districts/Taluka indicating the total strength of horses are to be prepared of the affected districts. Mapping of routes of horses/ equines around 25 kms. From the nuclei of infection is to be worked out and on defined routes where movement of horses is in vogue need to be monitored or clinical examination by the Veterinary Officers designated by the State. The topographical details of districts / Talukas need to be drawn and strength of horses / equines is recorded. 

a) Sampling of the in-contact animals is to be done as follows:

<table>
<thead>
<tr>
<th>Horses / Mule / Donkeys</th>
<th>i) 100% -5 km around the nuclei of infection</th>
<th>ii) 20% -5 km above to 25 km. around the nuclei of infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoroughbred</td>
<td>i) 100% related to all horse including race horses irrespective of the distance in State</td>
<td>ii) 100% in all organized equine establishment</td>
</tr>
<tr>
<td>Studs</td>
<td>i) 100% yearlings and 100% foals</td>
<td>ii) 20% mares and stallions at the Studs.</td>
</tr>
</tbody>
</table>

b) Extensive physical surveillance of districts around 50 km from the nuclei of infection is to be carried out.

5. **Reporting of incidence**

Once notified, the State Animal Husbandry Department need to send monthly reports to the Animal Husbandry Commissioner regularly till the incidence is nil and surveillance is over.

6. **Approved Test Method for Surveillance**:

Visual examination for clinical signs, coupled with sero testing by complement fixation test and mallein testing could be adopted with advantage for the surveillance programme. Amongst thoroughbred horses and those horses which are meant for trade only, complement fixation test should be done.

7. **Banning on movement**:

Movement of all horses / equines is to be restricted for 3 months from the last destruction of positive reactor horse. After 3 months based on physical examination and serological test results, the need for restriction on further
movement of horses is to be decided by the State Department. If no case of Glanders is reported after six months, movement can be allowed based on sero negativity by complement fixation test or on mallein testing. Restriction on movement should include restrictions on animal fairs dealing in equines.

SHORT TERM MEASURES

1. Strategy for routine check up of horses

Veterinary clinics in the State having reported isolated cases or sporadic outbreak of Glanders should be alerted for routine check-up for horses in the area. Suspicious cases of Glanders based on clinical examination should take necessary steps for confirmation of the disease by the following agencies:

i) National Research Centre on Equines, Sirsa Road, Hissar.

ii) Central Military Veterinary Laboratories, Meerut.

The diseased horses should be eliminated humanely.

2. Symptoms to be seen by authorized veterinarians

Clinical signs of Glanders occur in 3 distinct forms, (i) nasal, (ii) pulmonary, and (iii) Cutaneous. form (Farcy) and at times combination of all these. Veterinarians working in the state which report sporadic cases of glanders should be adequately trained to detect case of glanders. Short term training should be organized for the veterinarians with appropriate audio-visual aids. The RDDL, Pune should develop such training module with the help from equine disease reference laboratories.

3. Samples to be collected for confirmation:

In general, following samples are to be collected and sent to laboratory for diagnosis of Glanders:-

i) Swabs of the exudates from the nostrils.

ii) Section of nodular lesions/lumphnodes.

iii) Air dried smears of exudates.

iv) A paired Serum samples.

Material should be submitted to the laboratory for maintaining appropriate cold chain.

However, NRCE, Hissar may circulate the correct procedure for collection and dispatch of clinical specimen for diagnosis of glanders.
4. **Field Level Testing**: 

Physical examination along with mallein testing using purified protein derivatives (PPD) could be used with advantage. CF test can also be carried out in qualified laboratories.

5. **Period of observation and testing interval**

Period of observation in the affected area should continue for a period of six months and testing either by mallein or by complement fixation test could be adopted. After the initial testing, second testing in the affected area need to be done after one month which could be followed subsequently after 3 months and six months. In case of disease occurrence continuing, area of surveillance will require to be expanded up to 25 KM.

6. **Procedure for Declaration of freedom from disease**: 

OIE guidelines need to be adopted for this purpose.

Clinical examination / Rising and falling titre by CFT and mallein test should be followed by the second test after one month.

If all the horses found negative, another test should be done within three months from the first testing. Minimum of three test in the first three months followed by another two test within next six months are to be conducted. If all the tests are found negative, the outbreak area could be considered free from infection.

7. **Follow-up action after declaring the outbreak over**: 

After the outbreak is declared over, another two tests to be conducted for the next one year preferably after nine and twelve months following the first case in the affected area.

Physical examination and inspection spread continue in the State for two years. Random testing should be carried out which could vary from one to 5% depending upon the area of operation in consultation with a core expert group formed by the State.
LONG TERM MEASURES:

1. **Budget Availability**: Suitable budget is to be made available by the State Departments for compensation, disposal of carcasses and disinfection and testing.

2. **Research on diagnostic tests**: Uniform validation and accreditation system for the ongoing complement fixation test should be carried out. Availability of Glanders antigen and uniform standard serum to be developed by NRCE/IVRI for the same. There is a need for improvement on the production of purified Mallein, using a fresh isolate from the field. Availability of sufficient mallein for field testing requires to be ensured.

   Possibility of development of enzyme-linked immunosorbent assays (avidin-biotin ELISA test) should be explored along with a Polymerase Chain Reaction (PCR) for the specific detection of B. Mallei and differential diagnosis from B. Pseudomallei.

3. **Training Programme**: Continuous short term training programmes for the field veterinarian need to be arranged. In addition scientist from regional diagnostic laboratories where disease is sporadically reported are to be trained for CF testing. NRCE, Hissar is to explore the possibility for training the Scientists from respective RDDLs.

4. **Participation in Fairs & Markets**: All participating horses should be screened for clinical signs of Glanders before entering the premises at temporarily established check-post and subjected to mallein testing as and when required (particularly in areas where sporadic cases of glanders have been reported in last 20 years even when no case is present).
List of Participants of the Meeting.

1. Prof. P.K. Uppal, Technical Director, RWITC, Pune.
2. Shri Pankaj Kumar, Director, Animal Husbandry, U.P.
3. Col. S.S. Rajpal, DTE AHQ.
4. Col. Shri Kant S.M. Commandant, Central Military Veterinary Laboratory, Meerut.
5. Dr. Preveen Malik, Senior Scientist, NRCE, Hissar.
6. Dr. Sandip Khurum, Senior Scientist, NRCE, Hissar.
7. Dr. Dharam Singh, Meerut.
8. Dr. V.C. Ramtake, Addi. Commissioner of AH, Pune.
9. Dr. H.S. Sandhu, Joint Director, NRDDL, Jalandhar.
10. Dr. M.K. Saha, Deputy Commissioner (ICCDP), DADF.
11. Dr. S.V Pathak, Deputy Commissioner of AH, Pune.
12. Dr. P. Dandapat, Asstt Commissioner, DADF.
13. Dr. (Capt.) A.G. Bandyopadhyay, Joint Director, RDDL (ER).
14. Dr. M.D. Venkatesha, Joint Director, Dte. Of AH, Dehradun.
15. Dr. R.P. Bahugana, Joint Director, Dte. Of AH, Dehradun.
16. Dr. Devendra Sharma, Chief Tech. Officer, Dehraduni.
### A list of Equine Fair for FY15-16

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of the Equine Fair</th>
<th>Expected Month</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S~ayun-I</td>
<td>April</td>
<td>Raibarelly</td>
</tr>
<tr>
<td>2</td>
<td>Dehgawan</td>
<td>May</td>
<td>Badaun</td>
</tr>
<tr>
<td>3</td>
<td>S~idpur-I</td>
<td>May</td>
<td>Badaun</td>
</tr>
<tr>
<td>4</td>
<td>Madhiyayi-I</td>
<td>June</td>
<td>Meerut</td>
</tr>
<tr>
<td>5</td>
<td>Chobari-I</td>
<td>May</td>
<td>Barelley</td>
</tr>
<tr>
<td>6</td>
<td>Thulai-II</td>
<td>August</td>
<td>Hathsras</td>
</tr>
<tr>
<td>7</td>
<td>Deoband-I</td>
<td>August</td>
<td>Saharanpur</td>
</tr>
<tr>
<td>8</td>
<td>Budana - I</td>
<td>August</td>
<td>Muzaffarnagar</td>
</tr>
<tr>
<td>9</td>
<td>Khata-I</td>
<td>August</td>
<td>JP Nagar</td>
</tr>
<tr>
<td>10</td>
<td>Maibasai</td>
<td>September</td>
<td>Badaun</td>
</tr>
<tr>
<td>11</td>
<td>Godhini</td>
<td>September</td>
<td>Badaun</td>
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<tr>
<td>12</td>
<td>Jatahaoad-I</td>
<td>September</td>
<td>Muzaffarnagar</td>
</tr>
<tr>
<td>13</td>
<td>Tanda</td>
<td>September</td>
<td>Baghpas</td>
</tr>
<tr>
<td>14</td>
<td>Dholna</td>
<td>September</td>
<td>Kanshiramnagar</td>
</tr>
<tr>
<td>15</td>
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