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Popular Article

Health Management of Swine

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"Good hygiene keeps disease away."

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO). Maintaining good health and farm hygiene will not only help in gaining better body weight but also provide satisfactory return to the farmers and safeguarding health of the consumers. Providing clean and hygienic environment to the pigs housed must be the first and foremost priority of the owner of the farm. There should not be any water-logged areas near the farm. Floor hygiene specially floor cleaning and sanitization must be practiced twice daily. At the entry of the farm provision of foot bath is to be provided containing 2% potassium permanganate solution and every person entering the farm should dip their feet in that foot bath. Washing body of the animals with clean water at regular intervals reduces the incidences of infectious diseases and also provide comfort to the pigs.

Piglet anemia: piglet anemia is a condition of the piglets which occurs usually within 2-4weeks of birth, more common in suckling piglets, thereby making them prone to infectious diseases. Sow's milk is a poor source of iron thereby leading to low reserve of iron in piglets. Piglets usually reared under natural soil conditions are very much resistant to the condition as they take up iron from the soil. Vitamin K deficiency also causes this condition which leads to excessive nasal bleeding. Treatment includes oral supplementation of iron, pasting of ferrous sulphate salt on the udder of the sow and Iron Dextran injection.



Some of the most common diseases found in pigs are transmissible gastroenteritis virus (TGE) and Porcine epidemic diarrhea virus (PED) are porcine coronavirus. Both virus cause diarrhea in pigs with similar clinical symptoms. Disease severity is inversely related to the age of the animals. While TGE infections are currently under control, recent emergence of virulent PED virus strain results in significant mortality. No effective treatment is available.

Prevention measures include enhanced biosecurity and vaccination with the later, being the most effective approach. Commercial vaccines are available for both the viruses. (3)

Vaccines For TGE AND PED Viruses

Virus region/country	Vaccines in development	Commercial vaccines
1. Asia	Recombinant proteins expressed in Baculovirus, yeast, and plants; live attenuated vaccine	Inactivated vaccines (mono, bi-, and trivalent for TGE, PED), live attenuated trivalent for TGE and PED.
2. Asia	Recombinant vaccine expressed in Baculovirus, yeast plants, Lactobacillus casei, Salmonella typhimurium and others.	Inactivated bivalent TGE and PED vaccine; Live attenuated trivalent TGE and PED vaccine.

Biosecurity Protocols to Be Followed

1. Replacement stock should be quarantined, and it should be ensured that their health status is compatible with the existing herd.
2. Entry to farm should be restricted only to essential personnel and their entry should be recorded.
3. Boots and coveralls should be provided for staff and visitors for each pig shed.
4. Staff should use dedicated boots and coveralls upon entering each different shed. Clean footbaths may be appropriate at the entry point.
5. Vaccination should be followed regularly.
6. Entry of equipment and other materials to the farm should be minimized and appropriate precautionary measures such as disinfection, removal from shipping boxes etc. should be strictly followed.
7. Entry of wild animals or pets to the farm should be prevented.
8. Semen should be used from a known source, which routinely tests against major infectious agents that can be transmitted through semen.
9. It should be ensured that feed and water sources are free from infectious agent.
10. Biosecurity plan and herd health program, including vaccination protocols should be reviewed on regular basis.



Schedule For Vaccination in Pigs

Name of disease	Vaccine	Age of vaccination			Source of vaccination
		First	Booster	Subsequent	
Swine fever	F. D Lapinized Swine Fever vaccine	25-30 days	One month after	6-months interval	Institute of Veterinary Biologicals, Khanapara Guwahati.
Foot and mouth disease	Cell culture vaccine (Raksha-Ovac)	42 days	One month after	6-month interval	Produced by Indian Immunologicals & MSD Company.
Hemorrhagic septicemia	Raksha-H.S. Vaccine	2 months	One month after	Annually	Institute of Veterinary Biologicals, Khanapara, Guwahati.

(4. Government of Assam Animal Husbandry & Veterinary Assam Livestock & Poultry Corporation)

General Herd Health Management

1. Employ veterinary services to help implement herd health programs.
2. Immediately report any unusual signs of illness to your veterinarian.
3. As recommended by veterinarian, vaccinate pigs against certain diseases.
4. The health of all pigs should be monitored daily.
5. All sick animals should be treated immediately.
6. It is inevitable that in every swine production system, animals will become ill or injured and euthanasia will be necessary. Euthanasia should be performed only when
 - A) The animal has an inadequate or minimal prospect for improvement after two days of intensive care and treatment.
 - B) The animal is severely injured, non-ambulatory, and unable to recover.
 - C) Any animal that is immobilized with a body condition score of one on a scale of 1-5 (Karriker et al., 2006).

