



Pigs 101

Health

Raising healthy pigs is important from a number of standpoints, including general animal comfort and welfare, economics and production of a quality product. There are many factors involved in animal health encompassing different areas of production, such as housing and feeding, which should be paid close attention to.

Buying stock from a healthy herd is the first thing to consider when troubleshooting health problems. New pigs are the most common method of disease entry into an existing herd. Buying from one herd and maintaining age groups in separate areas are important in minimizing disease entry into a group. It is important to find out what vaccinations and other treatments (such as deworming or medications) the pigs may have had at the source farm. From there, it is important to work with a vet or qualified individual to develop a health plan for your specific type of production. A health plan should include information on vaccination, deworming, disease treatment, euthanasia, and biosecurity. Information on biosecurity is available in the Perennia factsheet *Biosecurity for Small Scale Livestock Production* (included in this package), or visit the Biosecurity Nova Scotia website at <http://www.biosecuritynovascotia.com/>.

New pigs that will be added to an existing group should be held in a quarantine pen for thirty days to minimize the risk of passing disease to the resident herd. This quarantine pen should be completely separate from other pigs. Manage the quarantine pen separately, doing chores in this area after finishing with the main group so that nothing is transferred from the new animals to the established ones. Ideally, have separate boots and coveralls for this area. These same practices should be employed for a sick pen. The additional benefits of a sick pen include stress reduction for the sick pigs as they avoid being bullied and have less competition for feed. Additionally, it's much easier to administer medications and keep records and withdrawal times straight for animals if they are in a separate pen.

Providing adequate shelter with mould free and clean bedding is important in minimizing pathogenic risks. Pathogens can be reduced by the simple presence of sunshine or freezing conditions, as well as by rotating pastured animals to reduce the buildup of disease and parasites. Closely linked to this concept is maintaining clean barns. Shelter facilities should be cleaned out, washed, disinfected and dried between batches of pigs. Pathogens can survive on debris left in an area and may build up, posing a threat to newly introduced pigs, especially piglets.

Stress is a major factor in enhancing symptoms that are already present, or weakening the pig's system, leaving it more susceptible to illness. Stress can be avoided by not overcrowding, maintaining groups for separate ages/arrival dates, ensuring the pigs are receiving properly balanced feed rations and that feeders and waterers are full and available, and addressing issues such as dirty pens, poor ventilation, drafts, and severe weather changes as soon as possible. Pigs should be watched closely for changes in behaviour and feeding habits after a stressful event. They should be monitored every day for sudden onset of disease symptoms and to ensure that dead animals are removed from the pen, as pigs are cannibalistic and can easily be exposed to disease through proximity with a dead animal.



The following tables aim to include basic information and symptoms of common health issues associated with pig production. This is not a complete list, and should not be used to diagnose or treat any animals. When a health issue arises, contact your veterinarian for advice and treatment options.

Table 1. Respiratory Conditions

Disease/ Issue	Symptoms	Cause/Contributing Factors	Course of Action/Prevention	Other
Acute Pneumonia	-laboured breathing -barking cough -red/blue belly/extremities -depressed, off feed -rectal temperature 40°C	-stress -virus (influenza) -bacteria -respiratory tract irritants (dust, chemicals, etc.) -extreme temperature fluctuations	-move sick animals to prevent spread -individual or group treatment (vet advised)	-spreads rapidly -influenza can be transmitted to humans/poultry
Chronic Pneumonia	-persistent barking cough -with or without laboured breathing	-higher risk when mixing pigs of different ages -parasites -bacteria (<i>Mycoplasma hypopneumoniae</i>)	-antibiotics usually ineffective -improvements in ventilation -avoid overcrowding	-may cause permanent lung damage, failure to thrive, lung adhesions
Atrophic Rhinitis	-sneezing -snorting -nasal discharge	-irritants (dust, ammonia, etc.) -virus -bacteria	-improvements in management/ventilation -vaccination -move sick animals to prevent spread	-animals may be carriers without showing symptoms -may lead to pneumonia
Swine Influenza	-fever -nasal discharge -weakness -coughing	-onset of cold weather -influenza virus	-vaccination -freedom from stress (irritants, overcrowding) -move sick animals to prevent spread	-highly contagious -spread through contact -can be transmitted to humans/poultry

Table 2. Infectious Non-Respiratory Conditions

Disease/Issue	Symptoms	Cause/Contributing Factors	Course of Action/Prevention	Other
Porcine Epidemic Diarrhea (PED)	-sudden onset of watery diarrhea -depression -abdominal pain	-virus -transmitted orally via feces	-sanitation -isolate infected pigs -adequate water to combat dehydration	-complete cure not usually possible
Porcine Circovirus (PCV/PCVAD)	-wasting -rough coat -diarrhea -deep purple skin discolouration	-PCV1 and PCV2 viruses	-anti-inflammatory -thorough cleaning/disinfecting between batches -vaccination	-related to various disease manifestations
Glässers Disease	-sudden death -meningitis -tremors, incoordination, weakness in hind end, paralysis, discolouration of legs/extremities	-bacteria (<i>Haemophilus parasuis</i>) -poor environment -stress -respiratory spread	-treatment as soon as possible to prevent death -isolate sick animals to reduce spread	-highly contagious -causes adhesion that contaminate meat -symptomatically similar to streptococcal meningitis and mulberry heart disease
Porcine Proliferative Enteritis (PPE)	-inflammation/ulcers on intestines -acute diarrhea -weakness	-bacteria -stress	-vaccination	-occurs primarily in growers/finishers
Septicemia	-sudden death -off feed, depression -red/purple bellies/extremities -dizziness, convulsions -lameness, swollen joints, pneumonia	-bacteria -transport, stress	-move into isolation to reduce stress -electrolytes	-most common in pigs 3 to 8 weeks

Table 3. Skin Conditions

Disease/Issue	Symptoms	Cause/Contributing Factors	Course of Action/Prevention	Other
Diamond Skin Disease (Erysipelas)	Acute: -sudden death -sudden fever/depression -red or blue skin -painful joints -diamond shaped, raised, red skin lesions Chronic: -lameness -enlarged joints -skin lesions	-ingestion of contaminated feed/water - bacteria (<i>Erysipelothrix rhusiopathiae</i>)	-vaccination, antibiotic treatment -sanitation -removing infected animals	-can be transmitted to humans -slows growth -meat may be condemned
Mange	-itchy -scratching, rubbing -dull coat, bare patches, heavy crusting	-small parasites living in skin -spread by asymptomatic carriers	-parasiticide -biosecurity	-all stages develop in epidermis
Lice	-bloody spots -often found on neck, jowl, flank, inner leg, ears -persistent rubbing/scratching -weight loss	-more severe in winter -spread by contact	-parasiticide	-host specific
Greasy Pig (Exudative Epidermitis)	-lesions (mainly on the head) -greasy discharge -lesions turn brown/black, crusty	-predisposing factors (ex. nutrient deficiency, ringworm, lice) -bacteria	-isolate infected animals -good management -sanitation	-usually in pigs less than 8 weeks old -less severe in older pigs
Ringworm	-brown, expanding rings -start on neck and behind ears -localized hair loss	-fungal infection -most common in winter	-usually left to resolve in its own	-contagious to humans
Photosensitization/Sunburn	-red, hot, painful skin -photosensitization occurs only on white areas	-photosensitizing agents (alfalfa, clover, buckwheat) -direct or sudden exposure to sunlight	-avoid photosensitizing agents -provide adequate shelter	-pink and white breeds more susceptible

Table 4. Deficiency and Toxicity

Disease/Issue	Symptoms	Cause/Contributing Factors	Course of Action/Prevention	Other
Vitamin E/Selenium Deficiency	-sudden death	-selenium deficient soils	-injections -supplements	-includes mulberry heart disease, white muscle disease, etc. -increases susceptibility to other diseases
Rickets	-swollen joints -lameness -poor growth	-calcium/ phosphorus/vitamin D deficiency	-adequate vitamin content in feed -adequate exercise	-confined animals often vitamin D deficient -pastured animals often P deficient
Dehydration	-brief period of thirst/constipation -stop eating/ responding -seizures, dog sitting	-frozen water troughs -broken water lines -general lack of fresh water -excessive salt intake	-provide fresh water, initially small amounts at frequent intervals -consistent supply of fresh water	-may promote gastroenteritis
Ammonia Toxicity	-ocular/nasal discharge -coughing -reduced growth rate -influence infectious diseases	-levels ~50ppm	-good ventilation -good management practices	-irritant -odour detected by humans ~10ppm
Hydrogen Sulfide Toxicity	-eye and respiratory irritant -paralysis/collapse (200+ ppm)	-levels 100ppm+	-adequate ventilation during agitation -emptying and cleaning pit between batches	-accumulates in liquid manure pits
Iron Deficiency	-loss of body condition -susceptible to infection -chill easily	-raising in confinement (no natural iron source) -vitamin E/selenium deficiency	-supplemental iron	-outdoor with access to soil may not need supplement
Mycotoxycosis	-reduced growth rate -necrosis (esp. extremities, hooves) -vomiting, diarrhea	-ingestion of fungal infected grain	-ensure clean feed -keep records of feed sources	-symptoms enhanced by cold weather -includes ergotism, DON, zearalenone -increased susceptibility to other diseases
Pigweed Poisoning	-5 to 10 days after exposure -trembling -weakness -rear leg paralysis	-Redroot pigweed (<i>Amaranthus retroflexus</i>)	-avoid access -no accepted treatment	-occur most often late summer, early fall

Table 5. Other Conditions

Disease/Issue	Symptoms	Cause/Contributing Factors	Course of Action/Prevention	Other
Swine Dysentery	-grey/yellow diarrhea -mucus and blood -weight loss -weakness	-ingestion of bacteria infected feces	-good biosecurity and sanitation	-more common in growers/finishers
Lameness	-unwilling to stand/move -arthritis, sore joints -favouring sore limb -sores/swelling	-cracks, sharp surfaces damaging hoof	-move to non- competitive environment -early medicinal intervention -may be managed to slaughter	
Trauma/Bite Injuries	-abscesses -tail biting, chewing	-competition -stress	-reduce conflict over resources -distractions/toys -anti-inflammatories	- bacteria may enter blood stream through wounds
Fly Damage	-enter wounds and cause infection, delay healing	-wet, dirty housing -improper removal of dead stock	-fly control (traps, flypaper, sprays) -hygienic practices (regular cleaning)	
Internal Parasites	-rough coat -pot belly -failure to thrive -dry, persistent cough	-many different parasites -contaminated environment -ingestion	-deworming -good management practices -regularly rotate pastures, if outdoors	-highly contagious -production limiting -eggs passed in feces are very resistant to environmental conditions
Trichinellosis	-not easily recognized in animals	-nematodes of <i>Trichinella</i> species -consumption of infected raw tissue	-prevention only -treatment in animals not practical -do not feed meat and meat by- products that are not CFIA approved feed ingredients to swine	-rarely occurs in abattoirs under modern inspection, some concern for home processed meat -can pass to humans, severe symptoms
Hernias	-umbilical or inguinal (lower groin region) lumps	-sores that become infected -twisted bowel -navel sucking -poor umbilical cord management	-no practical treatment -euthanasia	-pigs with small hernias may be transported directly to slaughter
Ulcers	-black, tarry feces -pale, anemic	-destruction of esophagea -stress -finely ground feed	-fibre in diet -vitamin K	-most common 120 lbs to market weight
Prolapse	-red, bloody protrusion from the rectum or vagina	-severe diarrhea -severe respiratory issues -stress -zearalenone mycotoxin	-treat diarrhea/respiratory problems promptly -individual treatment response poor	-whey, brewer's grain predispose animals to prolapse

References for health:

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