

# CVO Newsletter PEl Department of Agriculture

July 2025 Issue #1

The latest news, views, and announcements from your provincial Animal Health Team

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# **Better Animal Health Starts with Vaccination**

- By Dr. Yosdany Centelles Garcia

Vaccination is a cornerstone of modern livestock production. It helps prevent diseases that can cause significant economic losses through reduced growth, fertility, and increased mortality. Vaccines prevent deaths, including abortions, improve production, and minimize the need for antibiotics, which supports animal welfare, public health, and your bottom line<sup>1,10</sup>.

Livestock vaccines are not only critical for preventing disease and improving animal health, but also for enhancing food security by helping lower production costs, thereby reducing the cost of producing animal protein. They also contribute to preventing zoonotic and food-borne diseases in humans. Diseases like leptospirosis would be far more prevalent in people without effective animal vaccination programs<sup>11</sup>.

#### **Vaccination Alone Is Not Enough**

Vaccines are not magic bullets. Their effectiveness depends on the animal's ability to respond to the vaccine, which is influenced by stress, nutrition, and hygiene. The American Association of Bovine Practitioners (AABP) emphasizes that vaccines must be part of a broader herd health strategy<sup>3</sup>.

For example, poor ventilation, overcrowding, and dirty bedding can increase disease pressure, overwhelming even vaccinated animals. According to the Agriculture and Horticulture Development Board (AHDB), farms that improved barn design and air flow alongside vaccination saw a significant drop in pneumonia cases<sup>4</sup>.

Vaccines are most effective when used as part of a comprehensive disease control strategy, which includes:

- biosecurity
- genetic selection
- sanitation
- responsible antibiotic use

Vaccines reduce the need for antibiotics, helping to combat antimicrobial resistance, a growing global health concern<sup>11,9</sup>.

#### **Steps for a Successful Vaccination Program**

The following steps, based on guidelines from the Food and Agriculture Organization (FAO) of the United Nations (2023) and California Department of Food and Agriculture (CDFA), are essential for effective vaccination<sup>2, 5, 12</sup>:

- plan with a veterinarian
- choose the right vaccine type
- maintain the cold chain
- use clean equipment
- mix and use vaccines correctly <sup>6</sup>
- handle animals calmly
- follow label instructions
- keep records
- monitor for reactions

#### Importance of Vaccination in Controlling Cattle Pneumonia

Pneumonia is a major cause of illness and death in cattle. PEI livestock post-mortem reports show a high number of pneumonia related deaths- many of which are caused by viruses and bacteria that can be vaccinated against (such as BRSV, PI3, IBR) and bacteria (*Mannheimia haemolytica*, *Pasteurella multocida*) <sup>7</sup>.

#### Available Vaccines for Cattle Pneumonia in Canada.

According to the Canadian Food Inspection Agency (CFIA), the following vaccines are commonly used in Canada8:

- <u>Inforce 3</u> (Bovine Rhinotracheitis-Parainfluenza 3-Respiratory Syncytial Virus Vaccine, Modified Live Virus)
- <u>Bovilis Nasalgen® 3</u> (Bovine Rhinotracheitis-Parainfluenza 3- Respiratory Syncytial Virus, Modified Live Virus, Mannheimia Haemolytica-Pasteurella Multocida Vaccine, Avirulent Live Culture)
- <u>Bovishield GOLD One Shot</u> (Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza 3-Respiratory Syncytial Virus Vaccine, Modified Live Virus, Mannheimia Haemolytica Toxoid)
- <u>Pyramid 5 + Presponse</u> (Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza 3-Respiratory Syncytial Virus Vaccine, Modified Live Virus, Mannheimia Haemolytica Toxoid)
- <u>Vista Once SQ</u> (Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza 3-Respiratory Syncytial Virus-Mannheimia Haemolytica-Pasteurella Multocida Vaccine, Modified Live Virus, Avirulent Live Culture)

Speak to your veterinarian for help choosing the vaccines that are best for your herd.

#### **Additional Tip: Colostrum Management**

Colostrum quality and timing are critical. Calves need antibodies from colostrum within the first 6 hours. When cows are properly vaccinated before calving, calves will also receive those beneficial antibodies to help prevent pneumonia and scours<sup>2</sup>.

#### **Bibliography (For more information)**

#### **Staff Focus**



Dr. Jill Wood is the Chief Veterinary Officer for the province of PEI. She works closely with both our livestock and aquaculture sectors to support the work they are doing in raising healthy animals in a sustainable manner. She communicates regularly with partners in other provinces and with various levels of government to ensure producers have current and sound advice on animal health matters.

# Necropsy Service

# Summary of Animal Necropsy Findings (Jan - Mar 2025) (Under the Supporting Local Producers with Diagnostic Services agreement)

#### **Bovine**

During the period analyzed, pneumonia emerged as the most frequent diagnosis in calves, with multiple pathogens identified as contributing factors. These included:

- BRSV (Bovine Respiratory Syncytial Virus)
- Mycoplasma
- Mannheimia haemolytica
- Histophilus somni
- Trueperella pyogenes
- Pasteurella multocida
- PI3 (Parainfluenza Virus)
- Streptococcus
- E. coli

In addition to pneumonia, calves were diagnosed with diarrhea caused by coronavirus, rotavirus, cryptosporidium, enterotoxigenic E. coli, and enterococcus. Other findings included nutritional deficiencies, congenital abnormalities, and suspected clostridial infections.

In adult cattle, pneumonia was the most commonly diagnosed condition. Lab testing identified several pathogens associated with respiratory disease, including:

- Pasteurella multocida
- Klebsiella pneumonia
- Trueperella pyogenes

Other findings included digestive issues such as rumen acidosis (linked to grain overload) and a suspected case of heart rhythm disturbance.

#### Swine:

Swine necropsies revealed digestive infections (Diarrhea) involving:

Salmonella

- Enterotoxigenic E. coli
- Rotavirus

Cases tested for African Swine Fever (ASF) as part of the CanSpot ASF surveillance program were negative.

#### **Horses:**

All equine cases involved abortions, but no specific pathogens were identified.

#### Ovine:

Unfortunately, most of the lamb cases this quarter had no clear diagnosis.

#### Caprine:

Goat cases included degenerative spinal disease, suspected parasite involvement, and likely terminal hypoglycemia.

Cont'd...

#### **Poultry:**

Birds examined this quarter showed no signs of infectious or chronic disease. Sample quality sometimes limited the ability to detect subtle issues.

#### **Antimicrobial Resistance:**

Where tests were performed to determine if bacteria had resistance to antibiotics, it was found that a Pasteurella multocida in one case was resistant to Gamithromycin (Zactran), Spectinomycin (Linco-Spectin, SpectoGuard), and Tetracycline (Oxytet). This does not mean every Pasteurella will show the same resistance, but it is important to note that resistance may be a reason that treatment is not working as expected. Consult your veterinarian for appropriate antibiotic treatment advice. **This test is available upon request when postmortems are performed on Island livestock and qualifies for a subsidy.** 

### **Need a Premises ID or Need to Update Your Premises ID?**

All property in PEI with livestock or poultry must have a Premises ID number. It's easy to apply or update:

• Online: https://www.princeedwardisland.ca/en/service/register-for-livestock-and-poultry-premises-identification

Email: <u>peipid@gov.pe.ca</u>Call: 902-368-5654

# **Mental Health in Agriculture Workers Survey**

Whether you're a farm owner, employee, or seasonal agriculture worker, your opinions and experiences can help influence future mental health supports in agriculture on Prince Edward Island.

Anonymous and confidential

• Available in English, French and Spanish

• Short - takes under 10 minutes to complete

The survey has been extended to August 15

If your organization employs seasonal workers, we'd love to hear from them as well. Please contact us to explore how we can help share the survey with them.

**Complete the survey now:** <a href="https://www.princeedwardisland.ca/en/information/agriculture/seeking-feedback-mental-health-in-peis-farming-community">https://www.princeedwardisland.ca/en/information/agriculture/seeking-feedback-mental-health-in-peis-farming-community</a>

Our agriculture industry faces many stressors on a regular basis. If you or someone you know needs help, please refer them to the free mental health resources that exist at:



902-894-8006

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#### **Animal Health Team**

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SOMETHING YOU WOULD LIKE TO SEE INCLUDED IN THE NEXT NEWSLETTER?

**CONTACT YOSDANY!** 

