Position Statement:

Industry-Led Initiative to Eliminate Porcine By-Product(s) in Swine Feed Rations

Scope: All swine feeds, feed ingredients, and on-farm applications.

Purpose

The purpose of this document is to formally notify all Canadian Pork Excellence (CPE) Certified swine producers in Alberta of an industry-driven initiative to maintain a porcine by-product free production environment. This position strictly prohibits the inclusion of porcine-derived ingredients within our production systems. This measure is a response to critical gaps in source controls, traceability, and process validation that currently fall short of our industry biosecurity and swine disease risk-management standards.

Rationale

To safeguard the health of the provincial herd while ensuring the continuity of market obligations and access, Alberta Pork has identified the use of porcine by-products as a high-risk vector for pathogen transmission.

The industry's commitment to this prohibition is based on:

- Biosecurity Integrity: reducing the potential for intra-species disease recycling.
- Disease Mitigation: Strengthening defenses against production diseases like Porcine Reproductive and Respiratory Syndrome (PRRS) as well as notifiable and/or reportable diseases including all Foreign Animal Diseases (FAD) such as Porcine Epidemic Diarrhea Virus (PEDv), African Swine Fever (ASF), and Foot and Mouth Disease (FMD).
- Traceability Assurance: Eliminating vulnerabilities in the feed supply chain where source validation cannot be guaranteed.

Implementation & Compliance

Implementation and Compliance would be addressed through the Canada Pork Excellence (CPE) Program.

- All producers, feed mills, and nutritionists operating within the province are expected to align their procurement and formulation protocols with this new industry standard.
- Implementation of an extra auditing question for section 3.2 Rations use on farm and feed additives:

  > *This PID site and/or CPE on-farm feed mill has not manufactured feed containing porcine by products for the last 12 months or since a clean-up was completed and records supporting these conditions are available to auditors upon request*

- Suppliers must provide a letter of guarantee certifying that ingredients are free from porcine-derived materials.
- Compliance will be achieved through the routine CPE program validations and third-party audits.
- **Please note:** Under this proposed program the mill can still have and use porcine by products for use in rations for other species.

This initiative reflects the collective proactive stance of Alberta's pork industry to prioritize long-term sustainability and to safeguard the health of the provincial herd.

Porcine by Product Feed Restriction - Industry Driven Initiative Backgrounder

Porcine plasma, a porcine by-product, is derived from porcine blood collected at slaughter establishments and subsequently processed for use in feed. While industry literature suggests that certain commercial manufacturing processes can reduce viral risk, **risk acceptability is dependent on strict control of sourcing, processing parameters, verification, and post-processing handling**.

Following internal review, we have determined that **the information available to us does not provide sufficient, verifiable evidence that all porcine plasma products available to our supply chain consistently meet our required risk-mitigation thresholds**.

Blood can contain viruses when animals are viremic. Because of this, porcine plasma was historically scrutinized as a potential vehicle for transmitting diseases such as:

- African swine fever (ASF)
- PEDV
- PRRSV
- Other enveloped swine viruses

Multiple studies show that spray-drying reduces viral infectivity by **5–11 log units**, which is more than sufficient to inactivate ASFV and PEDV.

- Outlet temperatures of **70–80 °C**
- Rapid moisture reduction
- Protein denaturation
- Follow-up storage time

Together, these create strong viral inactivation.

Proper post-drying storage (≥14 days at room temperature) further inactivates any residual virus. Even in *worst-case studies where ASFV was deliberately added*, infectious virus was eliminated after storage

Risk Considerations

While published literature indicates that certain commercial processing systems may reduce viral risk in porcine plasma, **risk acceptability is conditional on consistent and verifiable control across the entire supply chain**. Following review, the following limitations were identified:

1. Source Assurance

- Limited ability to independently verify health status and geographic exposure of animals at the time of blood collection
- Potential for inclusion of blood from animals in pre-clinical or undetected infection stages
- Reliance on upstream controls not directly auditable by our organization

2. Process Validation and Verification

- Inability to review facility-specific and batch-specific validation data across all potential suppliers
- Variability in processing parameters and post-processing storage conditions
- Dependence on generalized or literature-based validation rather than product-specific evidence

3. Traceability and Auditability

- Insufficient transparency to reliably trace product from source premises through processing to final feed inclusion
- Limited access to continuous verification, audit results, and change-management notifications tied to suppliers' operational controls

4. Consequence Severity

- Even low-probability transmission events are considered unacceptable given the high consequences associated with FAD, reportable or notifiable disease introduction, including movement controls, depopulation risk, and loss of market access