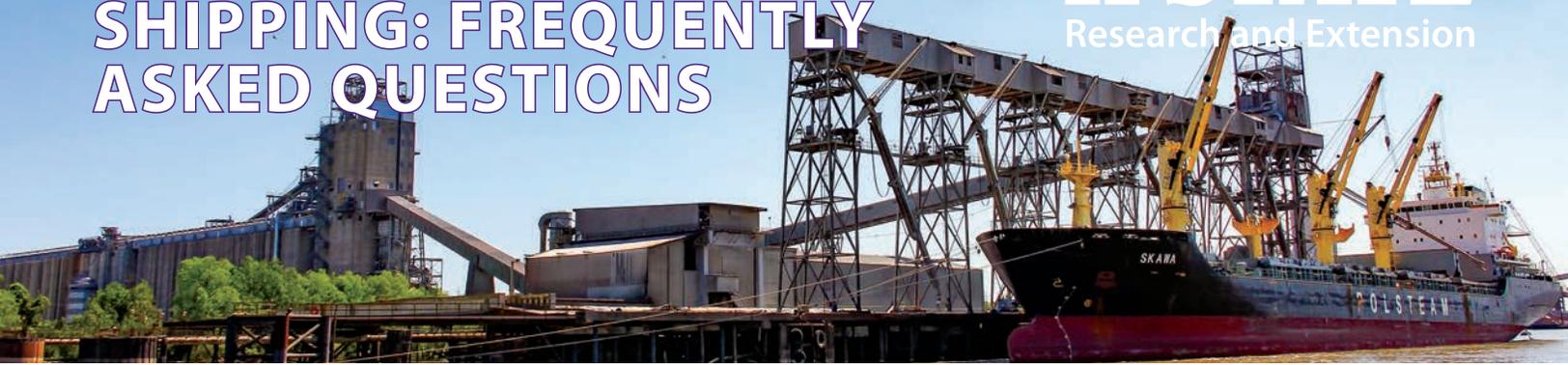


INTERNATIONAL SOY SHIPPING: FREQUENTLY ASKED QUESTIONS

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The global spread of African swine fever virus has led to concerns this virus could be carried into the United States via feed ingredients, with soy products falling under the most scrutiny. Soy is a concern because it harbors infectious virus longer than other feed ingredients.¹ To evaluate the potential risks posed by imported soy products, it is important to understand the system and procedures used to ship soy products to the United States. This publication compiles several common questions about the importation of soy and provides a brief description of best practices for importing the feed ingredient.

In what forms is soy shipped into the United States?

Imported soy products intended to be used in feed are primarily shipped into the United States as oilcake, organic soybeans, or soy oil. These products were determined using the Harmonized Tariff System codes in the U.S. International Trade Commission database. The shipper declares these codes and, therefore, may have some variation of the actual product (ex: the byproduct of oil extraction may be declared as oilcake or soy flour and meal). This declaration depends on the properties of the product as well as tariffs on product types.

What are the most common ports of origin/loading of oilcake, organic soybeans, or soy oil?

This information is not clearly defined. Shipping information can be found for shipments by HTS code, but they must be collected individually. For example, in 2020 only two shipments of organic soybeans were identified, and those shipments were loaded in Jawaharlal Nehru, India. It is important to consider both the country of origin for a product and the country of loading because one may be foreign animal disease-free while the other is positive. It is not uncommon for soy products to be shipped overland until reaching a port to be loaded for transport overseas (ex: soybean meal from Romania may be transported to Antwerp, Belgium before being loaded onto a ship).

What processes or procedures are common or feasible in ports of origin or countries to reduce the risk of contamination?

This information is not entirely clear. Depending on the port's capacity to ship containers versus dry bulk, holding times may be implemented. Using another form of mitigation is an option; however, the regulatory approval and practical applications of those options in ports are limited. Mitigation measures, whether holding times for the grain or other measures, would likely require some form of phytosanitary certification to determine compliance. This would add an extra level of documentation and

¹ Dee, S. A., Bauermann, F.V., Niederwerder, M. C., Singrey, A., Clement, T., de Lima, M., ... Diel, D. G. (2018). *PLoS ONE*, 13(3), e0194509. doi:10.1371/journal.pone.0194509

regulation. Ultimately, implementing risk-reduction measures in the United States would be the most reliable.

What are the most common ports of entry for soy into the United States?

Most soy products enter through Michigan, New York, Maryland, California, or Louisiana. Most organic soybeans were imported through New Orleans in 2020. It is important to consider the number of shipments into a port versus the quantity of product. Many ports have many shipments, but these shipments may be small quantities, like bags. Other ports, such as New Orleans, receive relatively few shipments, but these shipments are larger and consist of containers or dry-bulk product.

How long is transport from port of loading to port of entry?

There are several influential factors that influence transportation time. The largest is whether the ingredient is being shipped via container or dry bulk. Container shipping vessels travel from port to port, loading and unloading containers as appropriate (similar to a city bus route). Dry-bulk shipping is a direct route from loading to destination because an entire vessel is hired for one large shipment. Beyond this, the cost of freight and the cost of fuel dictate the speed at which these vessels are traveling because ships are more fuel efficient at lower speeds.

Where does most of this product go upon arrival to the United States?

This is not well understood. Brokers are commonly used for the importation of ingredients, which are then distributed once the products arrive in the

country. Data about the shipping of products from the port into the interior is proprietary information between customers and the rail and barge companies. The end use of these products could be speculated based on HTS codes, but it is unclear if products such as soy oilcake stay in the United States or are shipped to other countries from U.S. ports. Other products, such as whole soybeans, can be used for human consumption or can be pressed to extract the oil. The crushing process leaves soybean meal that can be used for livestock feed. This versatility makes tracking these products even more complex.

Is soy being shipped via dry bulk or through containers?

Ports in the United States are designed to ship agricultural commodities out. Arrival of dry-bulk commodities can be handled, but they typically need to be unloaded straight into a railcar, barge, other vessel, or into a private warehouse. Container shipping is more common, because dry-bulk shipping requires an entire vessel to be contracted by a company or a group of companies for a large shipment.

What challenges do U.S. ports face concerning the importation of contaminated soy?

Ports in the United States were designed to export agricultural commodities and less emphasis was placed on import. As a result, U.S. ports do not have the capacity to hold grains entering the country. If holding times are used to mitigate contamination, it is up to the importer or the end user to facilitate that and provide space for the grains to be held.

Best Practices for Importation of Soy Products

What areas are important to understand when evaluating the use of imported soy?

Understanding where foreign animal disease outbreaks are occurring around the world, where the soy products used for animal production originated, and where those products were loaded to be shipped to the United States are all important for reducing risk of introducing foreign animal disease to U.S. herds via feed. Not all these areas would be handled by the same people in a production system, so collaboration between departments is vital.

Who should be part of discussions involving the use of imported soy?

Facilitating discussions across supply chain managers — between nutritionists, biosecurity leads, procurement teams, and ingredient suppliers — is the first step to understanding if any feed products used in the production system are imported.

If soy is imported, what steps should be taken to reduce risk?

The country of origin should be verified for imported ingredients and referenced against countries experiencing known foreign animal disease outbreaks. If products are being imported, finding an alternative, domestic ingredient or implementing holding times before introduction to a mill will strengthen a biosecurity plan. Holding times require a product to be stored for a predetermined period at stable temperature to ensure any virus in the product has become inactive. This time would be different based on the product type and virus of concern.

When should holding times be in effect?

If holding times are implemented, it is good practice to start the clock, at the earliest, when the product has entered the United States. At this point, the processes the product goes through can be more reliably documented and the risk of cross-contamination is reduced. Importers can ensure that potentially contaminated product does not share equipment with products that have completed a holding period, been processed, or were domestically produced.

Are products safe after loading in a foreign animal disease-free country?

Even though a product was loaded in a foreign animal disease-free country, it may have been produced in a country experiencing an outbreak and then subsequently shipped overland to a port. As a result, the country of origin and the country of loading should be evaluated as well. If a product is undergoing further processing once it enters the United States, it may have a lower risk to domestic livestock. When done properly, processes such as solvent extraction or extruding may eliminate infectious virus from the feed product.



Figure 1. Grain is unloaded from a barge on the Mississippi River using a “marine leg” bucket elevator at the Cargill grain export terminal in Westwego, Louisiana.

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