

August 31, 2018

United Animal Health shares your concern and understands the importance of aggressive biosecurity measures to ensure African Swine Fever (ASF) does not enter the United States, especially with the recent discovery in China. Therefore, we wanted to provide an update on our biosecurity measures and, specifically, the sourcing of our ingredients from China.

At United Animal Health, biosecurity is always our top priority. We have many biosecurity measures in place that make the risk of product contamination minuscule. We monitor and adjust our policies based on changing risk profiles and new science-based information. As of today, this letter reflects some background, what we know, and what we are doing.

United Animal Health sources the following ingredients from China.

#### Ingredients Sourced From China

Vitamin A	Vitamin B9	Biotin
Vitamin B1	Vitamin B12	DL Methionine
Vitamin B2	Vitamin D3	L Valine
Vitamin B5	Vitamin E	L Isoleucine
Vitamin B6	Vitamin K	L Tryptophan

United purchases these items in their most concentrated form, in original packaging, from the factories. These factories are all extremely complex facilities, engaged in very multifaceted chemistry, with all of the Quality Controls and Safety Protocols that you would expect in relatively new, highly technical facilities.

Being relatively new, they are capable of only microscopic tolerances in the purity of the products produced. Further, many of the processes generate high heat, extreme pressure, and very low pH, providing effective sterilization. In the chemistry used to produce vitamins, in most cases, if you trace back to origin, oil is the feedstock. And, if not chemical synthesis, the other production method is very sophisticated fermentation, starting with a sterile medium to use as fermentation mass.

Once the production/packaging is complete, the goods are packed in sealed containers for ocean transport. The average time from China port to the west coast is 35 days. We can document this timeline, and can trace every product, by lot, back to its origin. We have certificates of analysis, with production and expiration dates, again, by lot, on all products. We are further holding the straight goods for an additional period of time, to provide a minimum of 60 days until we use it in our blended nutrition. As our industry defines better strategies, we will implement those science-based interventions immediately. We are in contact with our ingredient suppliers to make certain that they are aware of our concerns and have requested any updates in their QA/QC processes.

To summarize, the following outlines our biosecurity measures to prevent the entry of the ASF virus into the United States. We understand the devastating effect an outbreak would have on the U.S. pork industry and are taking the matter seriously.

### **Supplier and Product Quality**

All suppliers and products are approved and monitored to ensure regulatory compliance, feed safety and the highest quality.

### **Third-Party Quality Certifications**

Facilities are certified by third-party certification programs that are internationally recognized for their standards in feed safety.

### **Concentrated Form**

All of our China sourced vitamins come to us in their concentrated form. The manufacture of vitamins and amino acids is a highly technical process with miniscule risk of ASF contamination. The blending process for our China sourced vitamins takes place in the United States, eliminating contamination risk.

### **Minimum of 60 Days**

Starting with a MINIMUM of 35 days from Chinese port to west coast, we will document a 60-day timeline from shipment to use in manufacturing.

### **Full Traceability**

Starting with certificates of analysis, we can document, by lot/batch, every vitamin used to its origin.

### **Transportation**

All shipping is conducted via sealed containers. If a container arrives to us with a broken seal, the product is rejected.

### **Ongoing Monitoring**

United Animal Health is working with our trade organizations that are collaborating with National Pork Board, Swine Health Information Center and the National Pork Producers Council to develop comprehensive processes, procedures and steps based on sound science and practices.

Several years ago, United made the decision to go porcine-free in manufacturing as a further risk mitigation step in the transmission of virus. We have also organized a response team that is monitoring the situation and ready to act on any concerns.

If you have any additional questions, you are welcome to email [ASF@UnitedAnH.com](mailto:ASF@UnitedAnH.com).

Thank you.

