

## PEOPLE



## FEED & FOOD SAFETY

Access to safe and nutritious food is key to sustaining life and promoting good health. Feed and food safety balances current concerns with the safety of the animal products entering the human diet, while also protecting animals in the supply chain, as well as companion animals. It protects the human food supply through proper manufacturing, prevention of contaminants and proper labeling.

Feed safety includes product uniformity to minimize potential hazards; investigating for chemical contaminants, mycotoxins or drug residues; identifying common feed safety-related issues; establishing standards for preventing animal feed contaminations; and compliance with Food Safety Modernization Act requirements.

### Importance to the Animal Food Industry:

- Poor feed and food safety may lead to adulteration, which may cause foodborne illness.
- A compromised animal food supply can lead to consequences such as fines, litigation and, at worst, closure of a manufacturing business.
- A compromised animal food supply could result in the loss of customer or consumer trust, which negatively affects the company's bottom line and future business and damages their reputation.
- Feed safety protects a producer's or customers' investments as the quality of the animal's feed directly impacts their wellbeing.

### Example 1:

**APC creates high-value ingredients including functional plasma proteins and red blood cells sourced from blood that are used to enrich animal foods and promote nutrient uptake in plants. The company offers products suited for ruminants, swine, poultry, companion animals, fish and plants.**

### Value:

To APC, ensuring feed and food safety means consistently providing a product that is free of any potential pathogens. APC understands the magnitude of importance that is inherent in providing its customers' animals and plants with pathogen-free ingredients.

### Action:

APC implements multiple procedures throughout its collection, processing and handling efforts to ensure effectiveness of the company's

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manufacturing processes and ability to provide safe ingredients. During collection, critical control points are monitored for discrepancies. Because blood is collected at meat processing facilities, there are strict protocols for what blood is collected and how it is treated to create a reliable, safe product. APC only collects blood from federally approved facilities and U.S. Department of Agriculture-inspected, healthy animals. If illness or potential disease is detected within an animal, then the blood from that animal is segregated from the supply. Blood from approved animals is then filtered, chilled and stored in food-grade, stainless steel storage tanks. Blood is transported to the APC production site in species-dedicated tankers.

For processing, when the blood arrives at the plant, it is further filtered, treated with ultraviolet photo purification and then spray dried to reach 80 degrees Celsius. After packaging, the product is held at 20 degrees Celsius for two weeks in an environmentally controlled warehouse. After two weeks, the product is quality tested prior to release. Each step in the process serves as an effective kill-step in ensuring the non-existence of potential pathogens.

In addition to the company's internal standard quality tests on its finished products, APC runs specific tests as requested by customers depending on the products intended use.

APC has made significant capital investments to ensure feed and food safety, such as installing the UV photo purification, high spray dryer temperatures and hold steps at the end of the process. While these measures increase operating expenses and inventory space, APC believes these investments are key to the reliability, consistency and safety of their products.

### Benefit:

APC can provide the highest quality ingredients because each step in the process ensures the safety of the company's products. Extensive blood filtration and treatments ensure that no pathogens or disease-causing entities are present in the final product. The additional tests, provided at the request of the customer, ensure that the products are safe for the customer's intended uses. Reliable, consistent and safe products are paramount to APC's business model.



### Example 2:

CJ BIO America serves as the North American private subsidiary of CJ America BIO, whose parent company, CJ CheilJedang, represents one of several globally, publicly traded businesses of the CJ Group, which is one of

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South Korea's largest industrial conglomerates comprised of Food & Food Service, BIO & Pharma, Entertainment & Media, and Retail & Logistics divisions.

CJ BIO is the world's leading supplier of fermentation-based bioproducts for animal nutrition, human nutrition, and biomaterials at its 13 manufacturing facilities worldwide. The 64-acre Fort Dodge site produces essential amino acids for swine and poultry diets. The site's advanced microbial fermentation and refinery processes, cutting edge technologies, and geographic location enable them to achieve commercially scalable production while continuously improving quality and value sustainably.

### Value:

As a biotechnology company providing products for animal and human consumption, CJ BIO maintains an outstanding record regarding feed and food safety. CJ BIO ensures their ongoing record will continue garnering greater consumer trust while eliminating threats to adverse impacts as the company continues to increase value and expand growth.

### Action:

At its U.S. production site in Fort Dodge, Iowa, compliance audits are conducted four times a year by a Food and Drug Administration or U.S. Department of Agriculture auditor. This ensures that the company is compliant with the Food Safety Modernization Act. Further complementing existing federal, state, and industry-driven regulations on food and feed safety is CJ BIO America's recent ISO 14001 certification for its robust Environmental Management System (EMS), which validates our commitment to improving environmental standards across our entire internal value chain.

CJ BIO America also further ensures high-quality products through Feed Additive and Pre-mixtures Quality System (FAMI-QS) certification. This is a globally recognized certification that consists of a two-day, on-site audit conducted by a third-party firm annually to ensure it meets the outlined standards required by FAMI-QS. CJ BIO America has maintained the FAMI-QS certification since operations began in 2013. In addition, the company is also certified through the Safe Feed Safe Food FSC36 certification program, which requires an additional annual audit by a third-party firm.

CJ Bio America consists of 21 separate departments. Within those departments, there are three teams responsible for maintaining compliance with company and external audit standards: Environmental Health and Safety (EHS); Regulatory Affairs; and Environmental, Social, Governance (ESG). Whereas many companies maintain one regulatory affairs department with such responsibility, CJ BIO America's three teams enable thorough checks-and-balances with some overlapping roles to ensure product safety goes above and beyond minimum requirements.

### Benefit:

CJ BIO America has never received any FDA or USDA complaints or issues regarding their audits. The company's high product standards, maintained with regular internal and external audits, have ensured consistent quality feed and food safety since production began in 2013.

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