



WHAT SUCCESSFUL NUTRITIONISTS SHOULD KNOW ABOUT FEED MILL OPERATIONS

Three big lessons that all animal
nutritionists working on feed mill
operations must be aware of to go to
the next level of their careers



As we already know, animal nutritionists play a crucial role in feed mill operations for several reasons:

Formulating balanced diets: Animal nutritionists have a significant role in the global ag industry as they are responsible for formulating and developing nutritionally balanced diets for various animal species (swine, poultry, fish and pets, for example). They consider the specific nutritional requirements of different animals in their different production stages. By analyzing the nutritional content of feed ingredients and understanding the animals' needs, nutritionists can create optimal feed formulations to support animal health, growth, and productivity.

Quality control: Animal nutritionists also contribute to maintaining quality control in feed mill operations. They ensure that the feed produced meets the required standards and complies with regulatory guidelines. By conducting regular testing and analyses of feed ingredients and finished feeds, nutritionists can identify any nutritional imbalances, contaminants, or inconsistencies in the feed formulations. This helps prevent nutritional deficiencies or excesses that could negatively impact animal health and performance.

Research and innovation: Animal nutritionists are involved in continuous research and development to improve feed formulations and enhance animal nutrition. They stay updated on the latest scientific advancements, nutritional requirements, and emerging trends in animal husbandry. This knowledge allows them to incorporate innovative ingredients, additives, or processing techniques into feed formulations, leading to improved animal performance, health, and environmental sustainability.

Troubleshooting and problem-solving: In feed mill operations, animal nutritionists play a vital role in troubleshooting and problem-solving.

They investigate and address any nutritional challenges or issues that arise during production or in animals' performance. For example, if a specific batch of feed is causing health problems or suboptimal growth in animals, nutritionists can identify the underlying cause and make necessary adjustments to the feed formulation or production process to rectify the problem.

Cost optimization: Animal nutritionists help feed mills optimize costs while maintaining nutritional integrity. By carefully selecting cost-effective ingredients and optimizing feed formulations, they aim to achieve optimal animal performance and health without compromising quality. This involves evaluating alternative ingredient sources, assessing nutrient bioavailability, and minimizing waste or excesses in feed formulations, ultimately contributing to efficient and economical feed production.

1

Effective communication: a pillar for mill operations

Effective communication between nutritionists and feed mill staff is essential for efficient livestock production. Making changes to animal diets requires careful coordination to optimize inventory usage and ensure animal health. When nutritionists alter diet formulation, they must notify mill staff well in advance. This allows time to phase out existing ingredients before new ones arrive. With ample warning, staff can consult nutritionists about managing current stock levels to minimize waste. At the end of the day, open communication makes both sides comfortable addressing concerns like off-specification ingredients.

Besides that, implementing diet adjustments too hastily strains operations. New components may sit unused if old ones remain. Nutritionists must balance optimizing nutrition with realistic timelines.

Likewise, mill staff should inform nutritionists of any production issues immediately. If equipment malfunctions or quality problems arise, nutritionists can recommend fixes to maintain feed consistency. Staying quiet can lead to situations like nutrient levels deviating from formulations.

We already know that nutritionists shape animal health through diet, but rely on mill staff to execute plans responsibly. Then, constant collaboration enables both to fulfill their roles. With open channels for sharing information, they can fine-tune formulas and processes for efficiency. The resulting high-quality feed supports livestock well-being. Through proactive, transparent communication, they can continuously improve. The animals, farmers, and companies all benefit when these essential partners work in cooperation.

2 Understanding ingredient procurement and sample collection

Feed mills are essential to the livestock industry, but problems can arise if proper protocols are not followed. Understanding how ingredients are sourced, samples are taken, and documentation is maintained at the mill provides critical insight into feed quality and safety.

For instance, if a post-production feed sample does not match the expected composition, comparing it against a sample taken directly at the mill is imperative. Contamination could have occurred during transportation, rather than during production. Ongoing vigilance in this area helps prevent contamination and enhances feed quality and operational efficiency. Animal nutritionists play a vital role through their extensive knowledge of feed mill operations. While not directly involved in daily mill activities, they understand the dynamics better than the average veterinarian or nutritionist. This positions them to provide invaluable guidance when designing new mills or implementing major changes.

Specifically, animal nutritionists can advise on:

- Securing reputable ingredient suppliers and analyzing shipments for quality
- Implementing sampling procedures that accurately represent ingredient lots and final feeds
- Maintaining meticulous records of formulations, production parameters, quality control tests
- Training mill personnel on safety protocols and hazard monitoring
- Designing equipment and processes that minimize risks of cross-contamination
- Establishing feed handling procedures to preserve nutritional integrity

In summary, animal nutritionists' insights into feed mill operations allow livestock producers to maximize feed quality, safety, and efficiency. Their expertise proves critical in the face of rising demand for animal protein and increasingly complex feed manufacturing.

3

Understanding scales and batches at the mill

Feed mill operators know that minimizing the manual addition of supplements, known as 'hand ads,' is key to efficient mill operations. While some additional ingredients may need to be mixed in by hand, limiting these instances allows better control over the feed mixtures. New graduates who now work in feed production have become adept at creating nutritional packages that reduce the need for hand ads.

The ideal is to completely eliminate hand ads when possible. Doing so results in more accurate feed mixtures, fewer errors, and smoother mill operations. Graduates learn to maximize the use of main bins for bulk ingredients and optimize the organization of micro bins for minor additions.

With the bulk of the formulation preset in the main bins, there is less need to manually add in supplements after the fact.

Proper planning of the staged additions from the various bins minimizes last-minute hand ads. The preset sequencing and amounts from the bulk bins allow the mixtures to be calibrated precisely. Operators manage the feed types and volumes going into each batch instead of making disparate hand additions. This organized approach prevents over- or under-supplementation.

By teaching new operators to streamline the bin ingredients and minimize reliance on hand ads, they gain the skills to improve feed mill efficiency. The optimized use of main and micro bins, combined with strategic nutritional planning, reduces supplemental additions. In turn, this tightens quality control and improves productivity. Eliminating hand ads where possible is one key lesson for feed mill nutrition.

Oh, there is more...

The challenges that feed mill nutritionists face go beyond just formulating diets: their role requires a wide range of skills and a deep understanding of all feed mills' operations. [Dr. Mike Tokach's](#) experience with such matters, for example, has greatly contributed to his professional development. With that in mind, Dr. Tokach is the guest on the 3rd episode of [The Feed Science Podcast Show](#), where he shares five essential lessons for feed mill nutritionists to take a holistic perspective on the multifaceted nature of their work. By implementing those approaches, feed mill nutritionists can enhance their effectiveness, improve mill efficiency, and ultimately contribute to the success of the entire industry.

"Probably, the biggest lesson I've learned is about the importance of communication between the people at the mill and the nutritionist." - Dr. Mike Tokach

Watch the full episode with Dr. Mike Tokach:



To further explore more topics and gain valuable insights from industry experts, we invite you to listen to **The Feed Science Podcast Show**. The podcast features episodes with renowned professionals who discuss the biggest updates in our industry. You will get firsthand experiences, discover research findings, and learn innovative strategies that can help navigate the challenges in the feed industry. The Podcast is hosted by **Dr. Adam Fahrenholz** and **Dr. Wilmer Pacheco** and can be accessed [here](#).