Common Management Issues and Solutions

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If the pork industry would collectively reflect upon the immediate past few years and ponder the complexity of issues that have beset every player up and down the production chain, we must all agree that a united and untiring effort has been made to establish science-based improvements. Around the world, pork producers are rapidly changing their perspective of how pork is produced in order to be more environmentally responsible and neighbor-friendly.

Introduction

Producers have fine-tuned their community relation skills. Environmental management based training programs have been developed so producers can become aware of proper manure handling procedures. A myriad of new products and practices have offered to enhance the value of manure and/or minimize the social disdain of recycling this co-product of pork production. The intention of this discussion is to provide a practical application of research and products that relate to environmental stewardship.

Overview

Pork producers are being challenged to evaluate the practices on the farm that impact the environment to prevent water pollution and odor problems. Management of manure and wastewater is an important part of a total farm management plan because it can positively or negatively impact air, water, land and environmental resources. Successful management is the key to maximizing an important resource and minimizing negative effects on the environment. Simple farmstead aesthetics can make the difference between being accepted and not being accepted in your community. "Other peoples perception become your reality." Dust is the primary vehicle for moving odor about and off the site. Good sanitation practices and dust reduction measures help to minimize the intensity, duration, and frequency of noticeable odor events. The following are some common sense practices for successful environmental management on the farm.

Maintain building and production areas by keeping grassed areas mowed and trimmed. Implement routine maintenance plans that include building repair, painting, and clean up. Remove used equipment and debris from around the buildings.

Develop and implement a routine building sanitation program. Routinely clean and maintain ventilation fans and inlets, flooring, wall surfaces, and feeding systems. Reducing dust and manure build-up can improve indoor and outdoor air quality.

Keep access roads in good repair. Maintain stone drives or paved areas by

replenishing stone, grading service roads, and weed removal and control. Implement dust control measures during times of high traffic use. Do not allow spilled manure or discarded feed to remain on service drives.

Grade away from buildings to promote surface water drainage freely away. Keep drainage areas and diversion ditches well seeded, graded, and free of soil erosion. Provide drip line erosion and rodent control along the perimeter of the buildings.

Install a manure storage depth gauge. Routinely observe and record manure storage depths to plan storage management and land application schedules.

Maintain an emergency freeboard and storm storage volume in all open-top manure storage and treatment lagoons. Provide adequate freeboard and emergency storm (25-yr, 24-hr) volume in addition to the required storage volume. Pump storage before the freeboard and storm volumes begin to fill up.

Enough storage capacity provides flexibility in scheduling land application. Evaluate on-farm management systems and determine land availability when sizing manure storage.

Provide rodent control outside, inside, and in the attic of buildings and feed storage areas. Rodents are carriers of disease but also damage the integrity of buildings and ventilation effectiveness if not controlled.

Check and maintain inside and outside berms of earthen storage or treatment lagoons. Look for rodent burrows, tree roots, erosion, or seepage that can weaken the berm.

Divert all surface runoff, roof runoff, drainage water, and other uncontaminated water sources away from open lots and out of manure storage and treatment lagoons to reduce manure and wastewater volume and conserve storage capacity.

Collect all wastewater generated on the farm such as lot runoff, excess drinking water, clean-up water, and other contaminated water. Do not allow any wastewater generated on the farm to be discharged directly to a drainage ditch, field, stream, or other surface water source.

Develop a nutrient management plan. Effective nutrient use protects the environment and provides an economic return to the landowner. Use soil test results, manure analysis results, and crop rotation and yield goals to determine manure application rates in gallons/acre or tons/acre.

Plan land application to minimize leaching, surface runoff, and odors.

1. Determine application rates based on crop nutrient needs, soil moisture capacity, and weather conditions.
2. Inject or immediately incorporate manure when possible to conserve nutrients and reduce odors.
3. Maintain all grassed buffer strips and setbacks between manure application fields and streams and drainage ditches.
4. Document all manure handling activities and keep records organized and easy to access.

Develop an emergency response/action plan. Think about and practice what to do in case of an emergency. Have a written plan. Inform and educate everyone who works around the farm how to respond in case of an emergency.

Maintain dead animal collection and disposal areas.

1. Provide a solid, well-drained base for rendering pick-up locations and composting sites.
2. Control surface drainage to prevent leaching and runoff from dead animal collection and disposal areas.
3. Screen off collection points and compost areas from public view.

Implement an odor control strategy that includes:

1. Good neighbor, community, and public relations.
2. Provide visual barriers and windbreaks around buildings and manure storage/treatment containments. Plan these structures wisely so ventilation and structural integrity is not compromised.
3. Up-date facilities as--ventilation; manure collection, storage and treatment; and land application technologies become proven enhancements.

Think safety when working around manure.

1. Do not enter manure storage or reception pits without a self-contained breathing apparatus
2. Fence all outdoor manure storage and erect warning signs indicating the associated hazards
3. Maintain all guards, safety shields, and railings
4. Regularly inspect and maintain all electrical lines and equipment.
5. Do not run combustion engines such as welders, pressure washers, and dust blowers without adequate ventilation.
6. Locate first-aid and rescue equipment near manure storage areas.
7. Review safety practices and emergency response procedures with family and farm personnel regularly

Conclusion

How do we manage pigs, people and profitability? The last few years have brought many changes to the pork industry. Balancing the environmental demands of society with the need to sustain producer profitability has been a monumental task to say the least. As the pork industry accepted the challenge of improving the industry s production practices, it seems every player in the chain has come forward with meaningful input. This industry has undertaken a thorough inspection from the inside out. Pork producers are providing the leadership excellence needed to assure society they are responsible stewards of the environment. From the production employee who makes the day-to-day activities a reality to the sales force that markets the finished product every participant in the process is in some way influencing the environmental impacts of the industry.

Environmental Stewardship is an everybody thing!