

Texas

Partnerships for Livestock Environmental Management Systems

Feedyard Air Quality Management Program (FAQMP)

Representatives of Texas' cattle-feeding industry say they need an odor and dust management tool to help them prevent nuisance air pollution. The "Feedyard Air Quality Management Program" project team is working with a stakeholder/producer group representing over 25 cattle feedyards with a combined capacity of 1.5 million head in Texas, Oklahoma, New Mexico, Kansas and Colorado. This pilot project, part of the "Partnerships for Livestock Environmental Management Systems" consortium, complements two other pilot-testing efforts focused on environmental management in the beef industry: Montana (range/pasture) and Iowa (small to medium-sized feedlots).

The large-feedyard sector of the beef industry has presented some unique challenges. In Texas, this sector is already highly regulated under both a federal CAFO permit system and state CAFO rules that are among the most comprehensive and strict in the United States. Industry stakeholders for the project were unconvinced of the need for an EMS program that they saw as duplicating much of the technical and procedural content of their existing permit structure.

The cattle feeders' practical concerns about adopting a comprehensive EMS suggested the need for a more targeted program that (a) avoided duplicating existing regulatory requirements, and (b) is relevant to a high-priority issue for the cattle-feeding industry. At our national project meeting in January 2003, we concluded – and several stakeholder meetings later that year confirmed – that an EMS pilot-testing project would have the greatest value if focused on air-quality

Speaking of EMS...

"Stewardship is more about tomorrow than it is about today. The EMS pilot project has given us a great philosophical context for talking about tomorrow's environmental challenges with an industry whose fortunes rise and fall on today's news bulletins."

- Brent Auvermann
Texas A&M University



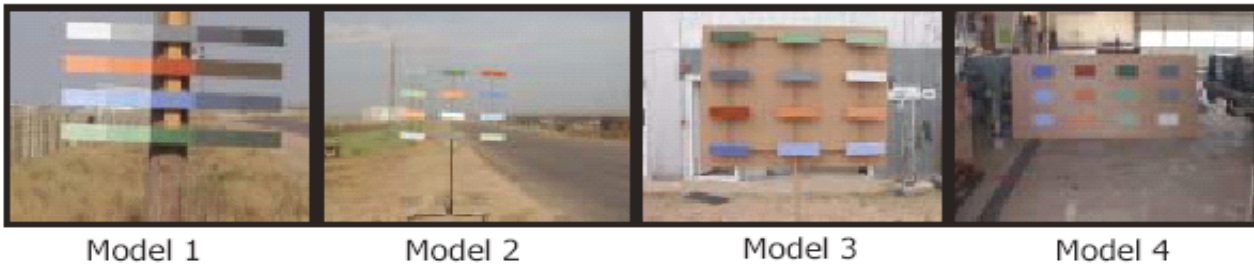
The FAQMP is working with over 25 cattle feedyards, representing some 1.5 million head of cattle.

management. For the past several years the Texas Cattle Feeders Association, the largest and most influential of the nation's state cattle-feeding organizations, has given air-quality protection top billing in its environmental research portfolio. We placed our focus squarely on air pollution and its implications for

nuisance conditions, regulatory compliance, public relations and human and animal health.

Managing air pollution requires that we are able to (a) monitor dust and odor conditions quickly, easily and cheaply and (b) implement a suite of scientifically documented practices or

ammonia etc.) that are most important to them and then (b) specify what motivates them to be concerned about those factors (neighbor nuisance, first impressions, regulatory pressure, human health, livestock performance etc.). Today, the industry is focused almost 100% on dust. But the matrix exercise has drawn more



How Dusty Is Your Feedyard? *The Texas EMS team is testing a contrast-based visibility model to help cattle feeders measure dust and predict peak emissions.*

technologies to reduce the frequency, duration and/or severity of air-pollution events. Current air-monitoring techniques are expensive and technically demanding. We have been gratified by the keen interest cattle feeders have shown in a novel, contrast-based, visibility measure that we believe will provide a cheap, rapid and simple means of detecting and measuring dust conditions. The Feedyard Air Quality Management Program (FAQMP) is a single-media implementation of an EMS, designed specifically for cattle feedyards. It retains the full Plan-Do-Check-Act EMS paradigm. At present, we are testing the method on one cooperating feedyard and one research feedyard, with plans to coordinate more tests with other field research being conducted in 2004 on feedyards across the Texas Panhandle.

Practical monitoring methods are only one part of an air quality toolkit that feedyard managers can use to assess their risks, implement controls and document improvements. The centerpiece of our toolkit is a “risk matrix” that asks cattle feeders *and their neighbors* to (a) identify the air quality factors (such as dust, odor, visibility,

attention to other air-quality factors, positioning the industry to act on them with forward-thinking stewardship principles in mind.

Lessons Learned

The comprehensive, multimedia EMS was a hard sell to Texas cattle feeders. In states not having well-developed CAFO permit programs, livestock producers might welcome the EMS option as a buffer against sudden, major increases in regulatory burdens, but Texas’ cattle feedyards are already operating under a highly evolved permitting structure. Like most agricultural producers, cattle feeders are essentially pragmatic. Any new stewardship initiative has to answer two fundamental questions: (1) Does it complement and enhance what I’m already doing, or does it duplicate and complicate it? (2) Are the benefits measurable and easy to understand? At the end of the day, the cattle-feeding industry and its neighbors need an air-quality management system that reduces the industry’s regulatory exposure, improves neighbor relations, prevents nuisance conditions, improves safety, limits liability and controls the costs of air-quality protection.