

Community, Natural Resource and Economic Development Program Fostering safer practices for manure applicators

Situation

For-hire manure applicators handle a third of Wisconsin's dairy manure—4 billion of 12 billion gallons produced annually. This makes manure application firms major partners in meeting regulatory requirements. UW-Extension responded to the applicators' request for professional development with an interagency-industry collaboration to train and sustain new firms.

Response

While properly handled manure recycles valuable nutrients to soil for crop production, spills can contaminate natural areas, waterways and drinking water. During March 2002, four of the five major manure spills reported (80%) involved for-hire applicators with less than two years of experience. The Professional Nutrient Applicators Association of Wisconsin (PNAAW) turned to their UW-Extension advisors for a certification program to improve professionalism among their members.

In 2003, the Nutrient Management Team Custom Applicator Subcommittee—UW-Madison/Extension conservation professional development and training coordinator Kevin Erb, plus county UW-Extension crops and soils agents Jerry Clark (Chippewa) and Ted Bay (Grant)—worked with PNAAW, Wisconsin Department of Natural Resources (DNR) and Department of Agriculture, Trade and Consumer protection (DATCP) staff to develop and pilot-test best practices education with 12 commercial manure applicators.

The program progresses through three certification levels. Firms must meet Level 1 requirements to gain Level 2, and meet Level 2 requirements to achieve Level 3.

- **Level 1** requires each employee to be trained and tested on state regulations, CAFO standards (Confined Animal Feeding Operation), spill response, cleanup and common sense application techniques. Firms that document compliance receive 10 percent off vehicle liability premiums from participating insurance companies.
- **Level 2** requires crew supervisors and business owners to complete 6 to 8 hours of continuing education every two years, and pass exams on specific topics.
- **Level 3** requires business owners to develop and implement an Environmental Management System (EMS) plan. Insurance auditors evaluate each firm's EMS to ensure compliance, then award up to 50 percent off environmental liability premiums and 10 to 40 percent off all other insurance except health and Workers Compensation.

UW-Extension developers assessed the first-year results, consulted colleagues in Illinois and Michigan, then added train-the-trainer education so startup firms could prepare their crews and "hit the ground running."

Outcomes

In 2004, UW-Extension provided training packets for new firms and the guiding principles for PNAAW to craft a professional code of ethics and standards of conduct. These were approved in 2005 by the full membership, and are the basis for similar efforts in Iowa, Michigan, Minnesota and Ohio.

Train-the-trainer sessions in Brown, Chippewa, Grant and Marathon counties drew more than 40 people from 20 manure application firms. More than 100 employees of 40 firms have received these educational materials.

As a result of 2004 certification training:

- Ten of the 12 pilot test firms completed Level 1 certification for all of their employees.
- Ten firms completed an EMS plan for Level 3 certification.
- Six firms have received their insurance discounts, saving from \$900 to \$4,800 per year depending on the firm's size.
- One insurance underwriter noted that his clients reduced claimable incidents by 80 percent in the first year of Level 3 EMS implementation.
- For firms that completed their first year and continued into a second, their insurance discount increased as their risk of accident decreased.

Of major spills reported July through December 2004, less than 20 percent involved custom manure applicators. DNR spills coordinator Roxanne Chronart and animal waste specialist Dave Bougie observed that custom manure applicators are reporting and handling incidents much more professionally.

Success stories

In Southwest Wisconsin: Three business owners and seven employees participated in the Dodgeville training. Pre- and post-training evaluation results include:

- Increased applicator understanding of manure spills prevention, response and cleanup.
- Increased understanding of regulatory requirements of manure application.

In Chippewa County: Crops and Soils agent Jerry Clark trained 21 custom applicators from seven firms. All 21 successfully completed Level 1 certification. Results include:

- Crew supervisors trained another six employees.
- Certified firms reduced their environmental and vehicle liability insurance premiums—saving \$1,200 to \$3,500 per firm per year.

Contact

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