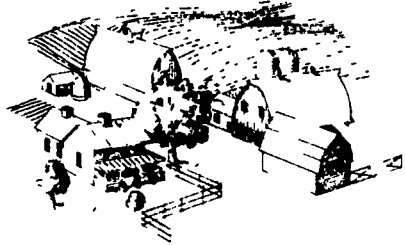


FARM MANAGEMENT



PENNSYLVANIA FARMERS SUSTAINING THEIR FARMS AND THE ENVIRONMENT: CROP MANAGEMENT ASSOCIATIONS
 Jan Pruss, Manager
 Crop Management Program
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In 1979, a small group of Centre County farmers with assistance from their local cooperativer extension agent organized the first Crop Management Association (CMA) in Pennsylvania. Their goal was to promote more economical, efficient, and environmentally sound crop production practices.

Established as a non-profit organization, CMA members were charged an acreage fee, and a crop technician was hired to monitor crop pests and collect plant and soil samples. Currently, 10 CMAs are operating in 34 of Pennsylvania's 67 counties. Associations have a combined membership of approximately 480 members, with 78,000 acres enrolled.

Originally farmers joined

CMAs because they lacked time to collect and document site-specific information required for determining when pest control measures were necessary. Gradually members recognized they also lacked time to acquire the knowledge and technical expertise needed to develop an integrated crop management system. Thus, by 1990, CMAs were employing crop management consultants who not only provided basic scouting and sampling services, but also supplied integrated pest and nutrient management recommendations, assisted in implementing Penn State's computer-based Crop Information Management System, and assisted in developing an integrated crop management plan.

In 1990, the Agricultural Stabilization and Conservation Service (ASCS) used the CMA concepts as a model in developing a new conservation practice for providing national cost-share assistance to encourage producers to adopt the use of farm management systems that incorporate the use of

integrated pest and nutrient management. Special Practice 53 (SP 53), called Integrated Crop Management (ICM), is a demonstration practice limited to a maximum of five counties per state and 20 farms per county, although in Pennsylvania, six areas encompassing 13 counties have been designated cost-share areas. To be eligible for cost-sharing, producers must have an ICM plan developed in writing by an approved technical expert, and the system must target a reduction in pesticide or nutrient applications by at least 20 percent. Cost-sharing is limited to one 3-year, long-term agreement with the same person.

Farmers in Mercer and Lawrence counties started a new CMA with a portion of their acreage fees supported by SP 53 cost-sharing. In addition, existing CMAs located in counties designated for ICM cost-sharing used the practice to encourage new membership. Since ASCS was interested in introducing new farmers to the ICM concept, farmers already enrolled in CMAs were not eligible to participate.

Data documented across 6,000 acres of corn and alfalfa by 45 CMA farmers participating in SP 53 in 1990 and 1992 indicate positive changes in pest and nutrient management practices. Those changes were the result of an array of services provided by CMA consultants, including site-specific recommendations and the

implementation of Penn State's computer-based Crop Information Management System for documenting, organizing, and summarizing management practices. Some of the changes occurring in nutrient and pest management practices between years include:

- The number of cornfields tested increased from 6 percent in 1989 to more than 50 percent in 1991.

- In 1991, 20 growers reduced total nitrogen available on corn acres by roughly 46 tons and total purchased nitrogen by 27 tons, saving roughly \$12,000 or \$570 per farm.

- Farmers kept better track of nutrient contributions from manure applications in 1991.

- In 1991, 25 percent fewer corn following corn acres received corn rootworm insecticides, reducing corn insecticide costs by roughly \$100 per farm.

- The number of alfalfa fields tested increased from 22 percent in 1989 to more than 60 percent in 1991.

- In 1991, 6 percent fewer alfalfa acres had phosphorus in deficit of crop requirements, and 4 percent fewer acres had potassium in deficit of requirements. Typically harvesting 5 tons per acre of alfalfa will remove 75 and 250 pounds

per acre respectively of phosphorus and potassium. To achieve expected yields, optimum nutrient levels must be maintained.

- Field monitoring allowed farmers to respond to increased alfalfa pest pressure in 1991, preventing economic losses. Drought conditions in 1991 caused plants to be more susceptible to pest pressure, resulting in increased integrated control measures.

Since SP 53 is only a demonstration practice implemented by ASCS to determine the program's effectiveness in improving cropping practice, there are currently no plans to expand eligibility to other counties. Nevertheless, the program has proved something that CMA members already knew: CMA membership doesn't cost, it pays. Membership pays in improved profitability, efficiency, and environmental quality.

To learn more about how your local CMA is serving your area, contact your cooperative extension agent. If your county does not have a CMA, tell your extension agent you would support one. If sufficient interest exists, the agent can help area farmers start an association. Contact Jan Pruss, manager, Crop Management Program, 116 ASI Building, University Park, PA 16802, (814) 863-1020.

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