Pilot farmers as ambassadors of excellent agricultural practice

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Low utilization efficiency of fertilizers and feeds led to high losses of N- and P-compounds and high costs of milk production on Dutch dairy farms. Therefore, in 1992, the ‘De Marke’ experimental dairy farming system was started on leaching sensitive soils with target reductions in nutrient losses of 75% for N and 99% for P. Central theme was maximizing the cycling of nutrients what reduces losses and therefore the needs for inputs. Result were used to start in 1999 the project ‘Cows & Opportunities’, to improve the nutrient management on 17 commercial pilot farms, all over the country, with target reductions of about 60% for N and 80% for P without lowering income. Representatives of the Dutch Dairy Farmers Board and the Ministry of Agriculture form the Steering Committee of the project, to guarantee a strong involvement of dairy sector and government. The pilot farmers are consulted by the government concerning the finding of most cost-effective legislation, needed for the Action Plan of the Nitrate Directive. Therefore, the project is also more or less a platform for government and farmers to exchange information and create mutual understanding.

Pilot farmers play an important role in communication with the dairy sector and therefore their motivation, skills to communicate and the image to be professional were important selection criteria. Ordinary farmers are helped by pilot farmers to define the best fitting strategy for farm improvement, taking into account farm specific circumstances, including personal skills and interests. Pilot farmers speak their language better than for instance scientists do. In general, farmers are only convinced of the value of innovations or better ways of working if these were shown in practice by colleagues they trust. As a result, between 1997 and 2006 the surplus for N of the Dutch dairy sector decreased with 40% (to 218 kg/ha) and for P with 52% (to 11 kg/ha) because of strong reductions in purchases of mineral fertilizers and concentrate feeds. Because reductions could be realized without reductions in milk production (Dutch average is 13,000 kg milk/ha) farmers are aware that these were financial profitable. Therefore, the acceptance of the dairy sector regarding the implementation of environmental measures by the government was high.

Based on the actual performances of the pilot farms, and the experiences that ordinary farms follow these at a distance of about three years, further reductions in dairy sector are expected. The nutrient management on the experimental farm De Marke now is on a level that no mineral fertilizer is needed because of excellent processing and application of the cattle manure produced on the farm. Expected is that most of the pilot farmers will demonstrate that level of excellent agricultural practice within 5 years.