

# Amish Water Quality and Nutrient Management Education 1998-2002

James J. Hoorman  
Water Quality Extension Agent  
Ohio State University Extension  
hoorman.1@osu.edu (419) 674-2297

**Project Description:** Targeted 240 Amish families in three communities in Hardin and Logan County, the Amish in the Sugar Creek watershed in Holmes County, and the Amish in Geauga County.

**Purpose:** To educate and increase adoption of Best Management Practices (BMP's) in Amish communities to improve water quality.

## Major Problems

### 1) Lack of Knowledge on:

Over Grazed Pastures Stream Bank Erosion Agronomic Issues



### 2) Misapplication of Nutrients:

Fertilizer Manure Chemicals



### 3) Water Quality Problems:

Contaminated Wells Livestock in Streams



## USDA-CSREES Grant Objectives

### 1) Educate 200 Amish families on BMP's:

Newsletters Farm Visits Meetings



### 2) Develop 100 Nutrient Management Plans

Soil Test Manure Test Plots Intensive Grazing



### 3) Monitor 100 Amish Wells and Local Streams

Well Testing Program Stream Monitoring



## Results

### 1) Education

- \* Focus on Farming Newsletter sent to 222 Amish Families and 73 Extension specialist in 13 States plus Ontario, Canada.
- \* 1600 Farm Visits to Amish Families from 1998 to 2002.
- \* 75% to 90% adoption rates on Best Management Practices (BMP's).
- \* Targeted innovative Amish farmers to increase knowledge and change attitudes, and increased BMP adoption.

### 2) Implemented 108 Nutrient Management Plans.

- \* 1000+ Soil Test from 108 Amish Farms with 40% testing low and 20% high in nutrients.
- \* 23 Poultry Manure Test Plots showed benefits of manure and nutrient management.
- \* 95% of Amish farmers adopted Intensive Grazing saving \$7500 per farm in feed cost.
- \* Calibrated 10 sprayers, 12 manure spreaders, and 19 planters.
- \* Partnership with Buckeye Egg, Inc. and Daylay, Inc.

### 3) Amish Well Testing and Stream Monitoring

- \* 204 Amish Wells Tested
- \* 72 (35.3%) Positive for Total Coliform Bacteria
- \* 19 (9.3%) Positive for E.Coli.
- \* Monitor 6 streams at 14 sites.
- \* Installed 10,000 feet of fence to exclude livestock from streams.
- \* Partnership with Indian Lake Watershed.

