



## **WATER RESOURCES RESEARCH GRANT PROPOSAL**

**Title:** *Cryptosporidium parvum*: Fate of oocysts in soil

**Duration:** September 1, 1997 through August 31, 1999.

**Federal Funds Requested:** \$70,000

**Non-Federal matching Funds Pledged:** \$ 160,028

**Principal Investigators:** Dwight D. Bowman, Department of Microbiology and Immunology,

William C. Ghiorse and Michael B. Jenkins, Section of Microbiology, Cornell University, Ithaca, NY

**Congressional District:** 26

### **Statement of critical regional or State water problems.**

The State of New York is the third largest dairy producing state in the nation with a population of some 710,000 milking cows. Dairy calves are known to be commonly infected with *Cryptosporidium parvum* during the first month of life. Each infected calf sheds billions of the oocyst transmission stage in its feces while infected. These oocysts are highly resistant to environmental extremes and have been found to be ubiquitous in raw surface waters (LeChavellier and Norton, 1995). This is of significant concern in New York, where the water supply of New York City is surrounded by many dairy farms and also represents the largest unfiltered water supply in the nation.