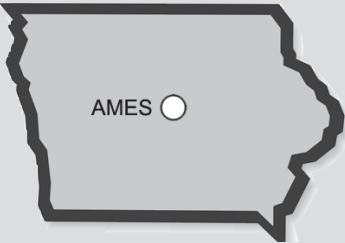


National Veterinary Services Laboratories and Center for Veterinary Biologics

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The National Veterinary Services Laboratories (NVSL) and Center for Veterinary Biologics (CVB) performs laboratory testing for the Veterinary Services unit of the United States Department of Agriculture. The NVSL serves as a national reference laboratory providing other diagnostic laboratories with animal disease information and technical guidance and support. The CVB program implements the provisions of the U.S. Virus-Serum-Toxin Act to ensure that the veterinary biologics available for the diagnosis, prevention and treatment of animal diseases are pure, safe, potent and effective. The facility is primarily a laboratory setting with associated support services, animal care facilities and administrative offices.

Project Background

NVSL/CVB has a continuing awareness of the need for pollution prevention and waste reduction. As a result of the facility's Green Team efforts, the laboratories have recycling and environmental education programs and a prairie development. Last summer the team organized a P2 Services assessment and realized the need for more action. An internship was acquired and the team continually leads the facility in the direction of pollution prevention and waste reduction.

Incentives to Change

NVSL/CVB realizes that being environmentally friendly is not only the right thing to do, but also cost effective. Through this view the facility has recently established an environmental management system and realized the need for changes in the following areas:

- Vaccine hazardous waste reduction
- Lawn maintenance
- Steam system efficiency
- Compressed air system efficiency

In these areas it is believed that pollution prevention and energy reduction can be increased while saving money by eliminating unnecessary costs.

Results

Vaccine Hazardous Waste Reduction

NVSL/CVB must hold all samples of vaccines through expiration in a repository. When the repository is full, the facility must dispose of the vaccines. Some of the vaccines contain a hazardous preservative; therefore, the vaccines must be treated as hazardous waste. After analyzing the waste stream it was determined that a more thorough separation of vaccines could be achieved. This resulted in a smaller

amount of waste to be classified as hazardous. The new method will reduce hazardous waste disposal by almost 40 barrels of hazardous waste per year and reduce emissions where the barrels are incinerated.

Lawn Maintenance

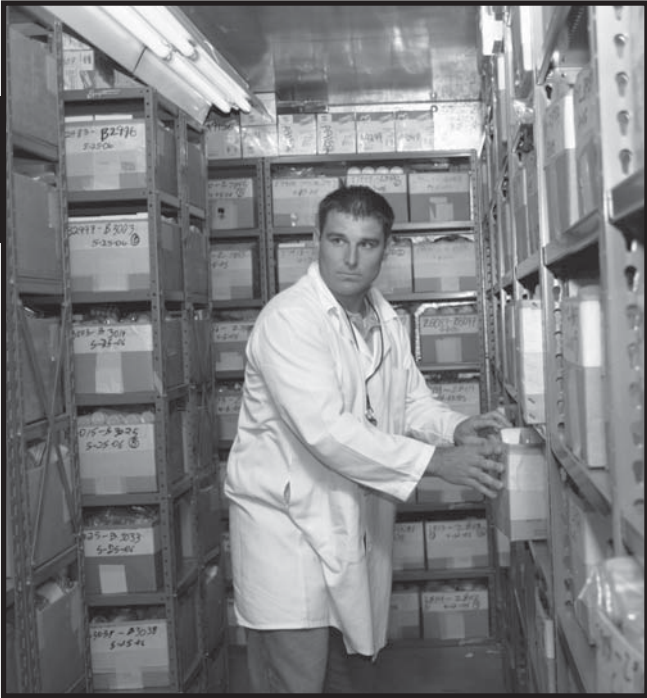
NVSL/CVB has about 15 acres of manicured lawn that is mowed throughout the summer. The high cost of fuel suggested a look into alternatives to mowing. A short native Iowa prairie of grasses and wildflowers was suggested to replace a large portion of the lawn. After an initial 2-3 years of minimal care, a mature prairie would be self-sustaining and would save about \$3,000 per year as opposed to a mowed lawn.

Steam System

The steam system is almost 30 years old and contains many of its original components. It was determined that fixing several large leaks and replacing faulty steam traps could result in savings of well over \$18,000 per year.

Compressed Air System

The compressed air system at the facility plays a large role because most of the HVAC controls are pneumatic. Therefore, demand is relatively constant and must be maintained efficiently. An air leak survey indicated routine checks could be beneficial.



Green House Gases Diverted in Tons (CO2 Equivalent)

	Total for all sectors
CO2	145.0
CH4	30.4
N2O	11.1
CFCS	0.2



Project	Annual Cost Savings	Environmental Results	Status
VACCINE HAZARDOUS WASTE REDUCTION	\$20,000	Reduce 39 barrels from incineration	Implemented
LAWN MAINTENANCE	\$3,000	Save 220 gallons of diesel	Recommended
STEAM SYSTEM	\$18,000	43,000 therms	Recommended
COMPRESSED AIR SYSTEM	\$500	More research needed	Recommended