



CHESTER J. CULVER
GOVERNOR

OFFICE OF THE GOVERNOR

PATTY JUDGE
LT. GOVERNOR

August 03, 2007

Mr. Chris Rasmusson
National Veterinary Services Laboratories
1800 Dayton Avenue
Ames, IA 50010

Dear Mr. Rasmusson:

Congratulations! I am proud to present your organization with a 2007 Governor's Iowa Environmental Excellence Award. Your efforts serve as a model for the entire state and I greatly appreciate your leadership in protecting Iowa's environment.

The awards ceremony has been scheduled for 11:30 a.m. on Thursday, August 23, 2007, in the Governor's Office of the Iowa State Capitol.

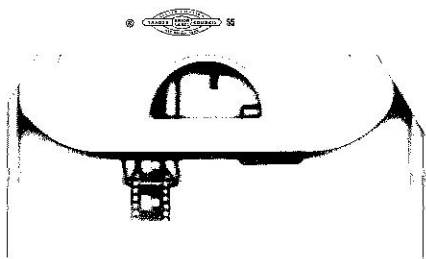
If you have any additional questions, please feel free to contact Kevin Baskins of the Iowa Department of Natural Resources at 515-281-8395 or at kevin.baskins@dnr.state.ia.us

Again, congratulations. Your efforts truly exhibit the leadership and innovation important for furthering environmental sustainability in Iowa and we will look forward to seeing you in August.

Sincerely,

A handwritten signature in cursive script that reads "Chester J. Culver".

Chester J. Culver
Governor



**Environmental Excellence Award
National Veterinary Services Laboratories/Center for Veterinary Biologics
1800 Dayton Avenue
Ames, Iowa 50010**

1. Leadership and Innovation

The National Veterinary Services Laboratories/Center for Veterinary Biologics (NVSL/CVB) recognized the need for environmental sustainability in 1995. A team of volunteer employees was organized to address environmental issues on the United States Department of Agriculture's (USDA), Ames, Iowa, campus. The Laboratories were among the first of the agencies in the USDA to have a structured environmental management team. The group of volunteer employees is affectionately known as the "Green Team." The Team is supported by Management; however, due to the federal structure the Team does not receive USDA operating funds. The group has had some hurdles to overcome, but each year the Green Team and NVSL/CVB have worked hard to increase their environmental stewardship.

As federal government employees at a regulatory facility some unique challenges are presented. The first challenge is how to fund Team activities. While revenue is generated through recycling paper and cardboard fiber, the money cannot be accepted by our agency due to a possible conflict of interest or perceived conflict. Instead, the monies are given to local charities and non-profit organizations. To date the NVSL/CVB campus has donated over \$13,000 to community groups.

In order to establish an operating fund the Green Team began collecting NVSL/CVB employees' soda cans. Soda cans are purchased by employees and are therefore not government property. Employees are contributing toward the environment by recycling the cans and are enabling the Team to better educate the campus on environmental issues. Aluminum can recycling has supported environmental programs sponsored by the Green Team such as: speakers for Earth Day programs; off-set some cost of electronic recycling; purchasing landscape gift certificates for America Recycles Day pledge drawings and other activities.

The second ongoing challenge is to motivate employee participation in Green Team activities. The Team has found that convenience sparks participation. Recycling bins are placed as close to the site of generation as possible. Programs are scheduled during normal break periods. Continued education about environmental

issues through speakers, information posted on designated “green” bulletin boards, and electronic postings and reminder e-mails has also proven to be helpful.

In 2000, Executive Order 13148 was issued to require “Greening of the government through leadership in environmental management.” The Executive Order mandated by the end of 2005 each appropriate agency facility would have an environmental management system (EMS) to identify the environmental risks and impacts at each site. When it came time to create the campus EMS for NVSL/CVB, Management turned to the Green Team to help determine environmental priorities. The Team had already put into place many programs which were required to comply with the Executive Order. The EMS illustrates the Laboratories’ commitment to accountability. The Green Team has since been used as a model for implementing an EMS at other public facilities.

To address continuing issues the Green Team reached out to other Iowa agencies for help to improve the environmental stewardship of our campus. In 2005 the Iowa Department of Natural Resources’ Pollution Prevention Services (P2S) was contacted to conduct a voluntary Pollution Prevention (P2) Assessment of our facilities. The results of the assessment helped the Team identify areas to increase cost, energy and waste reductions. The findings were also used as guidelines for writing the EMS. P2S encouraged the Team to apply for a student intern through their P2 intern program. NVSL/CVB was matched with an Engineering student from Iowa State University during the summer of 2006. The intern was able to research key issues identified by the P2S assessment. A new pollution prevention policy (described in the second question of this application) will reduce hazardous waste disposal. This was a significant result of our Intern program participation. Other recommended improvements from the Intern program are being implemented.

The Team is working with the Story County Conservation (SCC) to reconstruct 12 acres of prairie on the NVSL/CVB campus. Healthy prairie takes years to establish and SCC has been instrumental in recommending the proper method and supervising the reconstruction. The environmental and economical benefits of prairie were documented by the Green Team and Management as an investment in the future.

The NVSL/CVB continues to evaluate our activities and processes in order to improve and to set meaningful goals. In 2006 the NVSL/CVB was invited to present their EMS at the USDA/APHIS annual Environment, Health and Safety Conference in New Orleans as an example for USDA agencies. Despite initial limited resources, the Green Team set in motion an environmental program that has evolved into responsible stewardship. NVSL/CVB

is addressing environmental issues through joint participation of all branches of our organization, and when necessary we ask for external guidance and assistance. The efforts and dedication of employees have prepared the campus for the EMS and "Greening of the Government." We believe it is truly an example of environmental leadership.

2. Sustainable Environmental Results

Long term environmental impacts are visible in all of our laboratory activities. During 2006 NVSL/CVB has recycled 82,659 pounds of paper and cardboard fibers. White office paper, colored paper, magazines, catalogs, phone books, cardboard and animal feed sacks are all recycled at our facility. This amount does not include all paper fiber. Confidential business information is shredded. Shredded paper is not recycled through our vendor, but it is used as bedding in our animal facilities.

NVSL/CVB is proud to have expanded their recycling program in 2006. The Laboratories partnered with a different recycling vendor, as recommended by the P2 audit, which enabled the recycling of plastic. Previous to this year only some plastics were reused in the laboratories. This did prevent approximately 18,000 small polystyrene plastic boxes from entering the landfill. Now laboratory and employee food container plastics are recycled. Current participation by employees has exceeded the Team's expectations. It is estimated that approximately 12 gaylords of plastic will be collected in the last four months of this year. Nearly 100% of all plastic in the Laboratories is now recycled creating an increase in the recycling program of approximately 20%.

Since mid-August laboratory glass has also been recycled. It is delivered to the Ames Resource Recovery Plant. It is crushed and used for decorative purposes around the city and sold to a local paving company. It is estimated that 720 gallons of glass (collected in 20 gal containers with no weights available) will be collected by the end of the year. In addition to paper, plastic and glass, the NVSL/CVB recycling program includes all print cartridges, aluminum, wooden pallets, and used oils. These items have not been measured but all items received are recycled or re-used and do not enter the waste stream. All packing peanuts and some Styrofoam are also recycled through reuse.

The NVSL/CVB is responsible for testing and regulating veterinary vaccines. Some of the vaccines submitted for testing contain thimerosal, a mercury containing preservative. Mercury is a potent neurotoxin, global priority pollutant and a PBT – a persistent bioaccumulative and toxic chemical. It persists in the environment for a long

time. Disposal of mercury, and therefore submitted vaccines, must be done through hazardous waste channels. This year NVSL/CVB introduced a separation program to reduce hazardous waste disposal volumes and costs. Working with veterinary product firms throughout the country, Management and employees developed a procedure to identify vaccines containing thimerosal before they are submitted to the labs. Additional research on disposal methods by the P2 intern determined separation to be the most cost-effective and safest for employees. With a minimal increase in labor, laboratory personnel can now separate thimerosal products. Non-mercury containing vaccines can be discarded through normal waste streams. This has resulted in an annual reduction of 33% of vaccine waste. Thirty-nine 55 gallon drums (2145 gal) have been removed from incinerated waste. The Laboratories are encouraging veterinary firms to use alternate preservatives and eliminate entirely the use of mercury.

The Laboratories have reduced the hazardous waste disposal another 75 gallons by introducing the use of absorption destaining bags. The chemical, ethidium bromide, classified as a hazardous waste is now absorbed from waste buffers eliminating the need for liquid waste disposal.

Our P2S intern conducted a laboratory steam system survey in July, 2006. Large leaks and faulty steam traps were identified. Repair of the steam leaks by our Engineering staff will reduce air emissions by 61 tons per year. This will result in the savings of 43,000 therms annually.

NVSL/CVB continues to purchase fuel efficient vehicles. During the last year a Toyota Prius was added to the car pool which already includes three Honda Hybrids.

In the fall of 2005 NVSL/CVB began restoration of twelve acres of prairie that were established in 1978. The prairie was in poor condition due to infestation of Canadian thistles and noxious plants. The Laboratories sought the advice and help of SCC Biologists. Following their recommendations the project involved plowing and re-seeding of the land. Native Iowa seed was selected from Carl Kurtz Seed Farm. Restoration will continue with mowing and low maintenance through 2007. Employee volunteers assisted with planting an additional 1,000 prairie plants to supplement the seeding. The three-year project will result in twelve acres of restored wild life habitat and native grasses with beautiful blooming flowers in the spring of 2008. Prairie eliminates use of herbicides and fertilizers. The root system reduces soil erosion. Both factors impact water and air quality. Prairie maintenance is minimal. Less mowing reduces fuel expenses, emissions and manpower hours. Data from our

P2 intern suggests that approximately 80 lbs of mowing emissions (including carbon monoxide, nitrogen oxide and volatile organic compounds) were prevented this year by prairie restoration instead of having a manicured lawn.

Electronic recycling and re-use is a priority at NVSL/CVB. Working computer equipment is donated to area schools. All non-working computers, printers and laboratory equipment are recycled through an area vendor. Employees are encouraged to bring personal electronic equipment from home to recycle for a small fee twice a year to coincide with Earth Day and America Recycles Day.

During September all employees are encouraged to join the Iowa State University Skunk River Navy (SRN) program. The SRN is a group of ISU biology students led by Professor James Colbert. Each year the group conducts water testing and trash removal from portions of the Skunk River in Story County.

3. Economic Results

The programs at NVSL/CVB have created a variety of benefits throughout the environment, Laboratories, and community. The extensive recycling program at NVSL/CVB has resulted in a tremendous savings of resources.

The 41.3 tons of recycled fiber converts to the following resources saved*:

702 trees (10-inches in diameter)

169,330 kilowatt hours of energy (enough to run 82 homes for an entire year)

289,100 gallons of water (enough for a 2 year supply to a home, or about 82,600 toilet flushes)

47.19 cubic yards of landfill space

2478 pounds of air pollution

16,933 gallons of fuel

(*Information from Mid-America Recycling for each ton of recycled fiber)

Although no measurements are available for plastic and glass at this time, the reduction of the waste stream has resulted in smaller quantities sent to landfill and decreased incineration costs.

Since the beginning of the NVSL/CVB recycling program over \$13,000 of revenue has been donated to local non-profit organizations. The federal Eagles Loft Day Care Center and Story County Boys' and Girls' Clubs are among recipients of these funds. Due to increased recycling and dollar amounts other local groups were

researched as possible beneficiaries. In 2006 approximately \$2400 will be contributed to two local groups. Recent budget cuts have curtailed or eliminated area school eco field trips and environmental conservation programs. Funds donated to Story County Conservation will enable their employees to take these programs to schools and continue the education of young people in the local communities. The Green Team also wanted to invest funds back into environmental improvements. Donations to The Nature Conservancy of Iowa will help develop the Boone River water conservation project. Future proceeds will be designated to help fund more area programs.

The Green Team's first endeavor into recycling plastics involved re-using and re-filling "tip boxes." Tip boxes are small polystyrene plastic boxes which can be re-filled with plastic tips for laboratory work. As an off-site project, employees of Story County Development Center filled the boxes. Story County Development Center employs persons with disabilities. This project had multiple benefits. The Laboratories were able to use lower cost re-filled boxes, approximately 18,000 polystyrene tip boxes were removed from the waste stream, and job opportunities for Story County Development Center employees were created. This program has since been transferred to on-site. The Laboratories now employ two part-time employees whose job descriptions include assisting with the recycling programs. The employees were hired through the Story County Community Life Program. This program matches persons with disabilities with organizations offering employment opportunities.

The development of the program to identify thimerosal containing vaccines will create a major impact on the environment and the NVSL/CVB budget. Reduction of 39 barrels of hazardous waste will result in an estimated savings of \$20,000 in disposal costs. This waste was previously incinerated. Emissions from incineration and energy expended have been eliminated. Repair of the leaks and faults discovered by the P2 intern inspection of the steam system will account for another \$18,000 cost savings and will save 43,000 therms.

The restoration of 12 acres of prairie will impact the environment as well as show economic savings to the Laboratories. The native grasses and wildflowers will require very little maintenance. Prairie burns are beneficial and eliminate the need for mowing. However emissions are a concern and minimal mowing could replace the burns. Fuel expenses and manpower hours would still be largely reduced. The need for spraying and chemical application has been eliminated.

The purchase of fuel efficient vehicles has reduced emissions and energy costs.

4. Participation/Involvement

Programs at the NVSL/CVB rely strongly on employee participation. Involvement starts with the volunteer Green Team which was organized as a result of employee suggestions. The Team has been responsible for determining the feasibility of and the implementation of environmental stewardship programs, but all employees are encouraged to suggest changes or improvements. Employee participation begins with their aluminum can donations. Funds from the can recycling finance many of the educational programs which are intended to increase environmental awareness at the laboratories. As mentioned earlier, by strategically planning programs during employees' break times, more individuals attend to find out what the program is all about.

The success of the Laboratories' recycling program is dependent on employees' efforts. Each employee is responsible for collecting all recyclable materials in their work areas and then transporting them to a general collection site. This is facilitated by having small recycling collection bins in all work areas and posting reminder flyers around the lab as to what is recyclable. Employees are further motivated by the fact that instead of sending recyclable materials to the landfill or incineration, the recyclables earn money for local non-profit organizations. Even though a small fee is involved voluntary recycling of employee personal electronics has been very successful.

Employees also participate by donating their physical labor! Each spring employees volunteer to help plant new annual flowers at the Laboratory entrance and clean up the dried flowers in the fall. These projects allow employees to get outside during their breaks and do something different. In return, the laboratory gets a beautiful, blossoming entrance. Employees also assisted with planting supplemental prairie plants in the spring of this year. Each fall employees have an opportunity to impact water quality and pollution prevention by volunteering with the Skunk River Navy.

NVSL/CVB Management has always been dedicated to responsible environmental stewardship. Educational programs are supported and well attended by Management. The EMS, based on the Code of Environmental Management Principles, was written by our Agency Environmental Protection Specialist. It was adapted to fit our facility. An EMS Steering Committee has been formed to review audits and recommendations regarding toxic waste management and inventory pollutant reductions. The Committee will insure policies are implemented, corrective actions are taken, and improvements are reviewed. Management has a strong desire to go beyond environmental compliance.

To develop the reconstruction of the prairie employees have partnered with Story County Conservation. County biologists have facilitated prairie burns for maintenance, provided equipment for seeding, and on-site visits to check the progress and growth. Conservation biologists assisted the Green Team in applying for and receiving a grant through the Iowa Department of Transportation Roadside Trust Fund. A small area of new prairie was established with the grant funds. NVSL/CVB recycling revenue is now being donated to Story County Conservation to be used for school environmental education, summer programs, and training.

Community outreach has been essential to the success of NVSL/CVB programs. The recycling programs are based on this outreach throughout the community. Green Team members contacted the Ames Resource Recovery Plant for assistance with glass and plastic. The Plant provided a tour of the facility and shared an educational video on their processes. A tour of the Ames Power Plant for team members detailed the conversion process of trash to energy. Ames Area Recycling Center accepts glass, aluminum and food container plastic. Mid-America Recycling collects our laboratory paper fibers and plastic. Prior to this agreement, the Green Team arranged for polystyrene plastic to be recycled by delivering it to the local Coca-Cola Bottling plant. Partnering with American Computer Recycling, Hawkeye Wood Shavings, and Bell Salvage allows electronics, pallets, and unusable appliances to be recycled. Usable computer equipment is donated to area public schools. Outdated laboratory supplies that cannot be used for testing have been donated to school science programs. All printer cartridges are donated to the Ames Public Schools and the school collects a rebate. Partnerships throughout the community have allowed programs to grow at the NVSL/CVB and have benefited the participating partners.

The partnerships with Story County Development Center and Story County Community Life are excellent examples of outreach that benefited the individuals, organizations and the environment.

Partnering with Pollution Prevention Services and their Intern Program has provided opportunities to increase our commitment to environmental awareness and sustainability. The assessment provided by P2 Services has been useful in identifying problems and establishing measurable goals, objectives and targets. NVSL/CVB is a Federal facility. All tax payers in the State of Iowa are stakeholders in the organization. Every issue that positively affects the budget or impacts the environment benefits the population of Iowa.

5. Benefits to Workers/Environment/Community

Making environmental issues a priority at the NVSL/CVB has created an atmosphere of awareness. Green bulletin boards are used for posting educational material throughout the labs. Green Team sponsored programs

bring speakers to the campus. Speakers from Iowa State University, the Iowa Energy Center, and Story County Conservation have addressed global warming, wind energy, local water projects and prairie development. One Earth Day celebration revolved around a tree planting ceremony. A steady rain at the time provided ample water for the new plantings, and Laboratory Directors donned raincoats to carry out their ceremonial shoveling. E-mail allows for mass communication of all events. A federal website for on line training provides an EMS Awareness course. All employees have been encouraged to take the short, informational class. Increasing awareness and understanding the potential dangers of chemicals in the Laboratories provides a safer workplace. The reduction of the Laboratories' hazardous and non hazardous waste will heavily impact air and water quality of employees and the community. Reduction of waste disposal costs allows for investing in other resources for the Laboratories.

Recycling collection containers in all areas of the laboratories are a constant reminder of the importance of environment stewardship. Revenue from recycled products has been shared with numerous community organizations. Financial benefits are apparent. By funding local school and county programs hundreds of school age children will benefit from learning experiences provided by these programs. Employees have invested their time and attention to the reconstructed prairie. Prairies provide habitat for wildlife, butterflies and birds. An added benefit is the feel-good atmosphere it presents for employees as they watch the development. Each season brings changes to the landscape from flowering prairie plants to frost covered native grasses. It is impossible to put a value on this type of benefit. By insisting on environmental excellence a facility can be productive, cost effective and compliant with regulations. While the NVSL/CVB appreciates these benefits, the primary goal has always been responsible leadership. Environmental stewardship demands responsibility and commitment. The NVSL/CVB is aware of the impact of our "footprint" and strives for the continual reduction or elimination of that impact.

6. Transferability

The environmental initiatives at NVSL/CVB can easily be duplicated in another facility. Management support is the key to establishing any program. Employee volunteers are effective because their presence represents a desire and willingness to invest in improvements. Most employees want to contribute to a sustainable environment.

The most visible program in a facility is recycling. The largest investment for this program was an on-site baler for cardboard. Although expensive, an organization that can market the baled cardboard will experience short term payback. Storage could be a concern but cardboard can be stored outside a facility. Collection sites and storage for large quantities are a necessity for glass and plastic recycling. Our vendors pick up electronics, plastic, and paper fiber on-site so no transportation is required. Once the positive results of recycling were demonstrated in our facilities, it was easy to move to other programs with employee and management support.

Prairie development for any facility with large or small lawn care expenses is also possible. The expertise and equipment we needed to restore our prairie were available from county and state agencies. The original cost for seed was the major investment, but grants are available to purchase prairie seed. Long term savings in maintenance will provide a substantial payback to offset the cost of seed. If cost is an issue, prairie area can be developed piecemeal, gradually adding to the number of acres planted.

Pollution Prevention Services was a valuable resource in improving our hazardous waste reduction and energy savings. The no-cost P2 assessment was used as a guideline for many improvements. Our own Safety staff and Engineering staff were able to make several program changes and maintenance corrections identified in the assessment to provide a safer work environment and to reduce waste and conserve energy resources. The P2 intern program is cost free the first year of participation. The research and recommendations from the program have provided more opportunities to improve our facility.

No cost on-line training is available to develop an Environmental Management System. These guidelines can assist a facility in developing an environmentally responsible organization. Our Laboratory recycling program has been used as a model to implement a program at our APHIS facility in Riverdale, Maryland. We were recently recommended to Mary Greeley Medical Center staff for assistance in establishing a large facility recycling program at their Center. A sense of environmental responsibility requires willingness to share successful programs, and the NVSL/CVB is enthusiastic to respond to other organizations' requests.