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## The Spurlock Museum's Green Shield Certification

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### Abstract

In September 2012 the Spurlock Museum became the first museum to be awarded Green Shield Certification through the IPM Institute of North America. The Green Shield Certified program Certification was created and developed in 2000 in collaboration with some 40 experts in the field of Integrated Pest Management. Its purpose is to evaluate IPM programs by an exacting on-site assessment and to recognize those implementing advanced IPM practices.

This paper focuses on the museum's rationale for pursuing Green Shield Certification and its experiences in achieving that goal. It also discusses the program's plusses and minuses in order to help others determine whether this is something they might wish to pursue.

**Keywords:** Spurlock, Green Shield Certification, IPM

### IPM at the Spurlock Museum

The Spurlock Museum is the University of Illinois' anthropological museum, on the Urbana-Champaign campus. Its artifact collection consists of nearly 50,000 objects from five continents, ranging in date from about 250,000 years ago to the current day, and made up of a vast array of different material types, from stone, glass, and ceramic, to plaster and wood, to feathers, animal skins, and textiles. With our wide variety of artifact types the need for a serious program of pest management was obvious. After 90 years of living on the fourth floor of a classroom building on campus, the museum moved in 2000 to a new, 55,000- square-foot, purpose-built museum building. As Collections Manager of this brand-new space, it was my responsibility to develop an appropriate IPM program for the collections.

The strategy I chose for controlling and eradicating pests is Integrated Pest Management (IPM). The components of our IPM program include monitoring, inspection, identification and record-keeping, treatment actions, habitat modification, cultural practices, good housekeeping, and education. IPM is preferred as it reduces risks to artifact collections and personnel and is most effective when conducted as a team effort. Thorough monitoring by the entire Museum staff between scheduled weekly IPM duties ensures that the Museum remains a relatively pest-free environment.

Monitoring is primarily conducted by placing a series of traps in strategic areas around the museum. These traps are examined regularly to track any appearance of pest populations. Pests found in traps throughout the facility are identified and their provenance is recorded in the two FilemakerPro IPM databases designed by Professor Paul Marty and myself. We have 92 traps on site and 17 traps at our offsite facility. We hire an undergraduate student to work eight hours per week specifically on IPM issues.

The IPM system that we developed at the Spurlock conflicted a several ways with the longstanding

pest control culture on the University of Illinois campus, which was based on the use of widespread scheduled pesticide applications. After earning my Pest Management License for Structural Pest Control in 2005 from the State of Illinois, I was able to influence those involved with campus pest control to move toward IPM as the primary means of mitigating pests. I also began consulting for other museums and libraries on their pests and IPM programs. In 2010 I started teaching IPM workshops at the Campbell Center for Historic Preservation Studies at Mount Carroll, IL and the Willowbank School for Restoration Arts in Queenston, Ontario, Canada.

But having developed the Spurlock's program, I did not know of any external evaluation that could help us actually determine how effective it was. Even with all the safeguards and monitoring we use, we are hardly free of pests in the museum. Can one be environmentally responsible and still maintain an appropriate level of protection? Where might one turn for answers?

At this point the American Alliance of Museums does not provide a significant evaluation opportunity on IPM for its members. Within its Self-Study procedure for accreditation or reaccreditation, it offers a check list of elements belonging to IPM, but it remains quite basic. However, in 2012 I found that the Green Shield Certification program was what I was looking for.

### **Green Shield Certification**

I became aware of Green Shield Certification from Dr. Susan Ratcliffe, Director of the North Central IPM Center, which is based at the University of Illinois. In 2009 the university signed onto the Illinois Sustainable University Compact, an agreement with the state that supports green policies on campus. The Compact has 12 environmental objectives- one of which is to reduce pesticide use by establishing IPM practices at all facilities on campus. Dr. Ratcliffe recognized the importance of the IPM objective and dedicated funds from a USDA National Institute of Food & Agriculture Extension Grant to work toward Green Shield Certification for a number of campus buildings. Recognizing that the Spurlock already had a strong IPM program, she proposed that we be put forward as a first trial for the Green Shield evaluation.

The Green Shield Certification Program is led by Dr. Tom Green, president and co-founder of the IPM Institute of North America, a non-profit whose mission is to promote healthful and responsible pest management practices by pest professionals and users in public buildings and in agriculture. The Institute has specific certifications for schools and childcare facilities, and offers Green Shield Certification to individual pest management professionals, as well as to facilities. Green Shield Certification was created and developed in 2000 in collaboration with some 40 experts in the field. Since its creation, the certification process has been carefully refined and now provides an extraordinarily comprehensive analysis of the applicant's practices.

The Green Shield inspection is designed to lead to the certification of an individual program or a building. Few applicants pass on the first try. But the inspection is also intended to provide a full evaluation of the applicant's pest management program, with clear indications of where improvements should be made and how it should be done. While about 50% of those who undergo the process eventually achieve certification, most of the others that undergo the inspection do so specifically to solve a persistent pest problem and do not worry about achieving the certification. So essentially all applicants, whether they become certified or not, receive a substantial benefit from the program.

It is not cheap to do this. The cost is \$1500 to inspect up to five facilities at one time, on top of travel

expenses. Once certification is achieved, maintenance of certification is \$500 a year (again for up to five buildings). For six to ten buildings, the cost is \$2000, plus travel, and \$750 for annual recertification. We had the good fortune to receive funding from the North Central IPM Center, which made it possible for us to undertake the project. We are grateful to them for their support.

So, how was the inspection done? Initiation of the certification is the submission of a relatively simple one-page application, which asks for facility profile information and data on your current IPM program. This is followed by the site inspection.

On Friday July 27, 2012 Dr. Tom Green from Green Shield arrived at the Spurlock with his 63-point inspection agenda. Over the next eight hours, he examined every aspect of the museum's IPM program. He evaluated our inspection and monitoring practices both in the building and outside, and our sanitation and pest exclusion methods. He scrutinized our practices on problem identification and tracking, and mitigation of pest-conducive conditions. Dr. Green assessed our ability to identify key pests and key pest symptoms. He examined our record-keeping, our written policies on pesticide procedures (licensing of the pest management professional--in this case me--) and looked into whether safety procedures are followed with regard to personal protective equipment, MSDS and the keeping of an accurate inventory of pesticides, pesticide storage, notification practices and record keeping. He looked at our exterior landscaping and management of the educational gardens. Dr. Green examined conditions in every room of the museum, as well as the exterior of the building. During the inspection he verbally provided recommendations as he went.

About one month after the on-site inspection, Green Shield sent us a detailed 24- page evaluation that carefully analyzed all aspects of our IPM program, giving us points for areas we excelled in and pointing out places where we needed improvement. In our case, we received certification after the first inspection, something that occurs only 2% of the time. A passing score is 70%, and our program received 83%.

### **Conclusion**

Was it worth it to undergo this examination? We believe that it was. We found that an external evaluation validated a number of our practices and assured us that our program is protecting the artifact collection well. But even though our IPM program was in good shape, there were areas that needed improvement. Along with several specific recommendations, the primary issue the report emphasized was our need to pay more attention to conditions surrounding our educational gardens and to coordinate more carefully with the grounds keepers who work in them. All this advice proved very useful.

Is it something that would be helpful for your museum? Undoubtedly any museum would benefit from Green Shield's careful analysis of its IPM program. There are few more pervasive dangers to a collection than those posed by pests. The issue of cost may, however, be determinative about whether this is possible for you. I know that if we had not had grant funding, we would not have been able to do it.

As mentioned above, several institutions have made use of the inspection essentially as a one-time evaluation from which they can revise their plan and improve their situation without moving toward certification and the continuing expenses of keeping that active. This might be something to consider, particularly if your museum has significant unresolved pest problems.

If doing it is simply not possible, one can still take advantage of the published Green Shield Standards, with which one can perform a self-study that will likely improve your practices. One other aspect to note is that if you use an outside pest management company, you can look for one that has been certified by Green Shield and feel assured of the quality of its practices.

From our perspective, as part of a university very actively working toward a significant presence in the state as a leader in ecological sustainability, it is important to us that the Spurlock be visible as a model for other campus buildings, as well as structures all across Illinois. This emphasizes our place within the larger canvas of the University's role in improving the quality of life for the citizens of Illinois.