

**Allerton Park and Retreat Center**

**IDNR-IWPG #10-003W**

**Project: Allerton Park Invasive Species Control --Tools**

**Final Report: July 22 , 2010**

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A. *Grant Number:* #10-003W

B. *Grantee Name:* University of Illinois Allerton Park and Retreat Center

1. Address: 515 Old Timber Road
2. Contact Person: Jim Gortner, Associate Director
3. Telephone number: (217) 333-32 87 x 111
4. E-mail: gortner@illinois.edu

C. *Report Time Frame:* Project Completion Date--7-1-10

D. *Project Objectives:*

- To continue to implement a program of control of invasive plant species
- To obtain new equipment (chainsaw, brush cutter and hand tools)
- To increase the efficiency of removing invasive species
- To increase the area in which invasive species are under control
- To establish a long term solution to the invasive plant species in the Park's natural areas

E. *Project Description:*

Allerton Park is located in Monticello, Illinois and is a 1500 acre natural area owned by the University of Illinois. Invasive species are a major concern for the natural areas staff as this problem was allowed to go unchecked for many years. The primary species of concern at Allerton Park include:

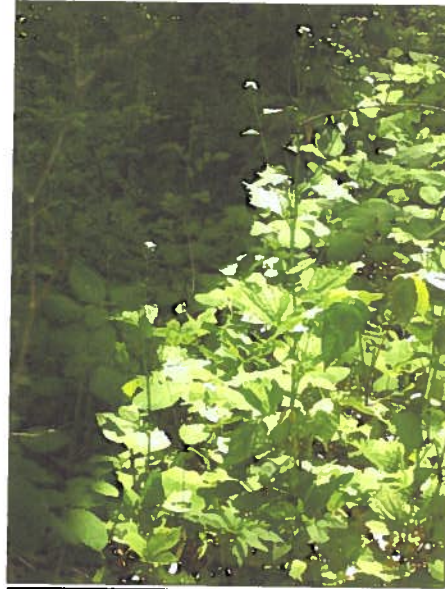
- Autumn olive (*Elaeagnus umbellata*)
- Bush Honeysuckle (*Lonicera, spp*)
- Japanese Honeysuckle (*Lonicera japonica*)
- Garlic Mustard (*Alliaria petiolata*)
- Round leave or oriental bittersweet (*Celastrus orbiculatus*)
- Multiflora rose (*Rosa multiflora*)



Multiflora rose. *Rosa multiflora*



Round leaf Bittersweet, *Celastrus orbiculatus*



Garlic Mustard, *Alliaria petiolata*

These invasive species are threatening the pristine habitats within the park. They dominate the understory and threaten to extirpate spring wildflowers from many areas throughout the Park. Regeneration of the forest has come to a halt in many areas due to these species. Natural areas staff and volunteers has been working on this issue for the past six years. Staff is constantly looking for more efficient and effective ways to control the invasive species that are present.

Currently, our tools of choice for conducting this work includes hand held tools such as machetes, hand held saws, loppers, etc. These tools work for small areas and are extremely labor intensive.

*F. Summary of Project Accomplishments:*

The following tools were purchased:

One chainsaw (Model Stihl MS211-16)

One brush cutter, brush knife and harness (Model Stihl FS450 w/chisel K)

Hand tools: loppers (2 ), hand pruners (2 ), soil knife (1) and hand saws (2)

*G. Introduction:*

The land on which Allerton Park is located was originally part of the tall grass prairie and woodland that grew along the Sangamon River in east central Illinois. As with most of the land within Piatt County, the site of Allerton Park was used for animal

grazing and then crop farming by the late 1800's. When Robert Allerton built his manor house and series of formal gardens (1900-1940), he had allowed much of the 1500 acres of his residential estate to revert to a woodland environment. As was the landscape fashion of the time, many non-native plant species were introduced to the estate and gardens for their beauty rather than ecological correctness and environmental compatibility. In 1946, the estate and farm land was gifted to the University of Illinois for education and research purposes and to become a public park.

From the mid-1940's to 2000, very little control of the exotic plant species that may have spread through seed dispersal was carry out. The exception was in 1955, one of the oldest prairie restoration projects in Illinois began on a 55 acre piece of land on the south side of the Park. Generally, control of any exotic plants was conducted when walking trails were cleared or periodic burns were carried out in the prairie.

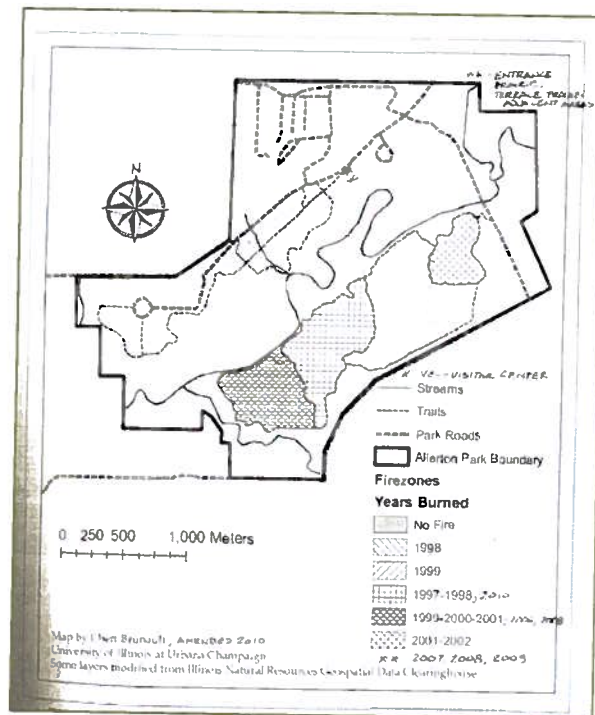
Since 2004, the Natural Areas Manager, student interns, and volunteers have embarked on a program of control of the exotic plant species that have in many cases over run portions of the woodland areas of the former estate. Techniques included selective annual burns (primarily in native prairie areas) and hand removal of the invasive species. Some very limited spot herbicide use has been used in controlling bittersweet.

#### H. Materials, Methods, Results and Summary:

The Park staff purchased one chain saw, one brush cutter and harness and several hand tools (loppers and hand pruners). Once the invasive plant species have been cut, the stumps will be painted with herbicide. It is estimated that with the use of the power tools, twice as much plant material can be removed.

Here is a map of the areas of the Park that were involved in the natural areas burn program. These burns were conducted in Fall or Spring based on the dominate plant species and/or the life cycle of the wildlife within the area. This is another method used to control non-native vegetation in the prairie land and woodlands in the Park.

The purchased equipment will be used by Park staff and volunteers for the removal of the aforementioned invasive plant species. A check out sheet has been created and can be



found in the appendices

I. *Digital Images:* Visual inventory of equipment

Stihl Brush cutter



Stihl Brushknife and harness



Chainsaw Stihl MS211





(2) Felco hand pruners



(2) Florian ratchet-cut loppers with covers



(2) Corona hand saw and  
(1) soil knife with cover



J. *Educational aspects of the Project:*

1. Wildlife and/or plant species that benefitted from project:

Invasive plants can over run native plant species, reducing numbers and biodiversity of the plants and the insects and animals that depend on them. By removing the invasive plants appropriate understory habitats for birds can be maintained. This habitat is especially important for nesting. Removal can also diminish the loss of critical food sources such as insects and seeds. By disrupting the ecosystems of the Park, the invasive plants could alter the fire regime, water cycles, soil characteristics and ultimately the regeneration of the unique upland forest within the Park.

2. Specific audience affected by the project:

Without the work of removing and ultimately eliminating the invasive plant material in the Park, future generation of visitors to Allerton Park may not be able to see and experience the native vegetation of Piatt County and a good portion of east central Illinois. Allerton Park is one of the few areas in east central Illinois that has a significant amount (1100 acres) of contiguous woodlands.

3. List of products resulting from the project:

The equipment purchased will be a part of a general multi-year plan to eliminate previously identified invasive plant species with in the Park. Staff will be monitoring the use of the equipment and the number of acres where the invasive species plants have been removed. The monitoring check list can be found in the appendices.

K. *Budget* (proposed and actual)\$1,500 (\$1,364 tools + \$136 Grants and Contracts)

The following table lists the expenditures that were incurred for this project. These expenses represent the entire cost of the project minus the labor costs. The Wildlife Preservation Fund grant (\$1,500) covered the entire of the cost for the tools. Copies of the receipts can be found in Appendix A. These receipts show the vendors name and address, description of the items purchased, quantity purchased and date of purchase.

<b>Description</b>	<b>Cost</b>
1 Chain saw (Model MS211)	\$ 231.00
1 Brush Cutter w/chisel (Model FS450)	772.48
Brushknife (300MM)	29.99
Hand tools	330.53
University Grants and Contracts	136.00
<b>Total</b>	<b>\$1,500.00</b>

*Project Funding Sources:*

The following table lists the funding sources and the amount (cash or in-kind services) that each sources provided.

<b>Source</b>	<b>Amount</b>
IDNR IL Wildlife Preservation Grant	\$1,500
Allerton Park-Operations	In-Kind; Admin (est. 30hrs x \$18/hr = \$540) (Shipping, \$4.99)

*L. Appendices*

1. Invoices
2. Reporting form for equipment use, etc.
3. Schedule for reporting
4. Press Release and coverage examples

Bobcat of Champaign  
2005 E Jones Ct

Mahomet, IL 61853  
217-586-7595

Invoice No: 26591  
Date: 3/4/2010

Terms: NET 10  
Page No: 1  
Copy No: History

Cust P.O: P0232737  
Cust ID: ALLERTON P  
Salesperson: Little, J  
Tele: 333-3287 ext131

# INVOICE

SOLD TO:

Allerton Park  
515 Old Timber Rd  
Monicello, IL , 61856

SHIP TO:

Quan	Part	Description	Mfg Bin	Tax	Each	Extended
1	FS-450-K	FS 450 W/CHISEL K	ST	N	899.99	899.99
<del>1</del>	<del>4134-710-9001</del>	<del>DELUXE DOUBLE HAR</del>	<del>ST</del>	<del>N</del>	<del>49.99</del>	<del>49.99</del>
1	4119-713-4100	BRUSHKNIFE 300MM	ST	N	29.99	29.99
<del>1</del>	<del>4140-149-0602</del>	<del>Exhaust Gasket</del>	<del>SP</del>	<del>N</del>	<del>1.54</del>	<del>1.54</del>
17.5% Discount						<del>929.98</del>
Total						823.74
						<del>157.72</del> 157.60
						6772.48

Thank you for your business.

Bobcat replacement parts are warranted to be free from defects of workmanship and material for a period of 6 months or 1000 hours, whichever comes first.  
Make all checks payable to Bobcat of Champaign.  
If you have any questions, please contact: 217-586-7595  
Jason Little (Parts); Clayton Smith (Service); Brandon Houser (Sales); Jon Coffman (Accounting)





Bobcat of Champaign  
 2005 E Jones Ct  
 Mahomet, IL 61853  
 217-586-7595

Invoice No: 24566      Cust P.O: P0139692  
 Date: 9/21/2009      Cust ID: ALLERTON P  
 Salesperson: Houser, B  
 Terms: NET 30  
 Page No: 1      Tele: 333-3287 ext131  
 Copy No: 1

# INVOICE

SOLD TO:

Allerton Park  
 515 Old Timber Rd  
 Monicello, IL 61856

SHIP TO:

Quan	Part	Description	Mfg Bin	Tax	Each	Extended
2	MS211 16	chain saw	SE 71-01-01	N	279.99	559.98
						559.98
				17.5% Discount		98.00-
				Total		461.98

1 MS211.16 CHAIN SAW = 279.99  
 - 17.5%      48.99  
TOTAL      231.00

APPROVED

INT. John Z at 09  
 Rank OPS



REMB OUT OF  
 GRANT LATER

5127 8624

P0232731

1-595981-550000-1912

147800

Thank you for your business.

Bobcat replacement parts are warranted to be free from defects of workmanship and material for a period of 6 months or 1000 hours, whichever comes first.  
 Make all checks payable to Bobcat of Champaign.  
 If you have any questions, please contact: 217-586-7595  
 Jason Little (Parts); Clayton Smith (Service), Brandon Houser (Sales); Jon Coffman (Accounting)

# A.M. Leonard

Serving The Commercial Horticulture Industry Since 1885

FEDERAL IDENTIFICATION NO. 310558695

241 Fox Drive - Piqua, Ohio 45356-0816

Phone 1-937-773-2694 Fax 1-937-773-9959

**INVOICE**  
 PLEASE REMIT TO:  
 A.M. Leonard Inc.  
 P.O. BOX 816  
 Piqua, Ohio 45356-0816

SHIP TO (IF OTHER THAN "SOLD TO")

PLEASE REFER TO YOUR ACCOUNT NO., OUR INVOICE AND ORDER NO. IN ALL COMMUNICATIONS REGARDING THIS INVOICE

YOUR ACCOUNT NO.

979955

UNIV OF ILLINOIS  
 515 OLD TIMBER RD  
 ROBERT ALLERTON PARK  
 MONTICELLO, IL 61856

Derek Peterson

YOUR PURCHASE ORDER NUMBER AND DATE

OUR INV. NO/ORDER NO.	INV. DATE	SHIPPED VIA	DATE SHIPPED	
CI10069408 / SO10053584	6/3/2010	UPS Ground	6/3/2010	Payment Due By 07/03/2010

ORDERED	SHIPPED	ITEM NO.	DESCRIPTION	ITEM NO.	% DISCOUNT	EXT. AMOUNT
	2	2FEL	SHEAR PRUNER FELCO ORIGINAL HAND PRUNER No 2	44.50	44.50	89.00

Prepayments Paid

-89.00

Credit Cards

ACCOUNTS 30 DAYS AND OVER ARE SUBJECT TO A FINANCE CHARGE OF 11/29% PER MONTH WHICH IS AN ANNUAL PERCENTAGE RATE OF 18% TO BE APPLIED TO THE UNPAID BALANCE.

SALES TAX	FOB	SHIPPING & HANDLING	TOTAL DUE
0.00	Piqua	0.00	0.00

Please return below portion with payment

ORIGINAL

**SOLD TO:**

UNIV OF ILLINOIS  
 515 OLD TIMBER RD  
 ROBERT ALLERTON PARK  
 MONTICELLO, IL 61856

CUT HERE

YOUR ACCOUNT NO.

979955

SHIP TO:

OUR INV. NO/ORDER NO.	INV. DATE	SHIPPED VIA	DATE SHIPPED	
CI10069408 / SO10053584	6/3/2010	UPS Ground	6/3/2010	Payment Due By 7/3/2010

SALES TAX	FOB	SHIPPING & HANDLING	TOTAL DUE
0.00	Piqua	0.00	0.00



# A.M. Leonard

Serving The Commercial Horticultural Industry Since 1885

FEDERAL IDENTIFICATION NO. 310558693

241 Fox Drive • Piqua, Ohio 45356-0816  
Phone 1-937-773-2694 Fax 1-937-773-9959

LN 2462670

## INVOICE

PLEASE REMIT TO:  
A. M. Leonard Inc.  
P.O. Box 816  
Piqua, Ohio 45356-0816

APPENDIX 1

PLEASE REFER TO YOUR ACCOUNT NO., OUR INVOICE AND ORDER NO. IN ALL COMMUNICATIONS REGARDING THIS INVOICE

YOUR ACCOUNT NO.  
979955

SHIP TO (IF OTHER THAN "SOLD TO")

UNIV OF ILLINOIS  
515 OLD TIMBER RD  
ROBERT ALLERTON PARK  
MONTICELLO, IL 61856

Derek Peterson

YOUR PURCHASE ORDER NUMBER AND DATE

OUR INV. NO./ORDER NO.	INV. DATE	SHIPPED VIA	DATE SHIPPED	Payment Due by
C110062304/SOI0053584	5/21/2010	UPS Ground		06/20/2010

ORDERED	SHIPPED	ITEM NO.	DESCRIPTION	UNIT PRICE	% DISCOUNT	EXTENDED AMOUNT
2	40 0		SAW ROOT AND ALL PURPOSE	11.9900	11.9900	23.98
1	DTB		KNIFE SOIL W/SHEATH 7 1/2 3/4	3.9900	43.9900	43.99
2	DR		BLADE			
10	800MT		HOPPER FLORIAN MINIRATCHET	85.900	85.4900	170.98
12	BEN		TAPE PLANT TIE 1/2 6 MIL	1.4200	1.4200	14.20
7	N325		REPELLANT BENS BACKYARD	6.9900	6.9900	83.88
			FORMULA			
			2.5 GAL NO-SPILL CARB GAS CAN	24.9900	24.9900	49.98

ACCOUNTS 30 DAYS AND OVER ARE SUBJECT TO A FINANCE CHARGE OF 1 1/2% PER MONTH WHICH IS AN ANNUAL PERCENTAGE RATE OF 18% TO BE APPLIED TO THE UNPAID BALANCE

SAL. TAX	FOB	SHIPPING & HANDLING	TOTAL DUE
.00	Piqua	4.99	392.00

ORIGINAL

Please return below portion with payment:

SOLD TO:  
UNIV OF ILLINOIS  
515 OLD TIMBER RD  
ROBERT ALLERTON PARK  
MONTICELLO, IL 61856

YOUR ACCOUNT NO.  
979955

SHIP TO:

OUR INV. NO./ORDER NO.	INV. DATE	SHIPPED VIA	DATE SHIPPED	Payment Due By
C110062304/SOI0053584	5/21/2010	UPS Ground		6/20/2010

SALES TAX	FOB	SHIPPING & HANDLING	TOTAL DUE
.00	Piqua	.99	392.00

**Allerton Park and Retreat Center**

515 Old Timber Road Monticello, IL 61801

Phone: (217) 762-7011 Fax: (217) 762-3632

Date: \_\_\_\_\_

**Invasive Species Control Equipment Reporting Form**

**Equipment\*** (This section must be filled out for each activity)

<input checked="" type="checkbox"/>	Type (Check all that apply)	Model Number	Serial Number
	Chain Saw (1)	Stihl MS 211	280091941-280091906
	Brush cutter & harness (1)	Stihl FS 450	170039555
	Hand tools ( N total)		
	Loppers ( ) indicate #		
	Hand pruners ( ) ind. #		

\*All equipment is stored in the Main Maintenance Building at the Park

**Control Operations** (Fill out only if use is an activity)

	<b>Operation location:</b>	<b>Name of staff:</b>
		<b>Comments:</b>
	<b>Activity:</b>	
<input checked="" type="checkbox"/>	<b>Number of acres enhanced by activity:</b>	
	0-1	
	1-2	
	2-5	
	More than 5	

**Maintenance of Equipment** (Fill out only for maintenance)

<b>Description:</b> (Invoices must be attached)	Inv. Attached <input checked="" type="checkbox"/>	<b>Cost:</b>	<b>Vendor:</b>

**Rental** (Fill out only if equipment is rented out)

<b>Date:</b>	<b>Renter name:</b>	<b>Activity:</b>	<b>Fee:</b>

University of Illinois—Allerton Park and Retreat Center

IWPF Grant #10-003W—Final Report Attachment

**Schedule of Reporting**

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**Staff Responsible:** Grounds Foreman, Derek Peterson

**Report Format:** Compilation of Data from Invasive Species Report Form

**Report Time Frame:** Annual submit in November of each year for five years from the completion of the grant project—equipment purchase

**Person to Contact for Inspections:** Grounds Foreman, Derek Peterson