

A Forest Reborn

Kevin Green, Fithian, Illinois

Sugar Maple Control and Hardwood Restoration in Central Illinois Woodland

Coordinator: Kevin Green

Location: Fithian, Illinois

SARE Grant: \$5,000

Grant Year: 1998

Project Number: FNC98-231

In response to the overpopulation of maple trees in the Midwest, Kevin Green received a SARE grant to restore a portion of the woods on his family farm to a more traditional oak/walnut/hickory forest.

More than 100 years ago, prairie fires regularly swept across the Midwestern plains. Those fires primarily eliminated maple trees because the nut trees (such as oak, hickory and walnut) were more resistant to fires. But as humans took control of the prairie, the natural process that kept a healthy balance in the tree population was eliminated and hard maple began to take over. Hard maples grow more readily in an open space with full sunshine, so today when a nut tree dies, a hard maple usually takes its place.

Kevin Green, a farmer near Fithian, Illinois, has decided—with the help of a SARE grant—to take a portion of the woods on his family farm and restore it to a more traditional oak/walnut/hickory forest.

"I took approximately 2 acres (of a 40-acre woods) and tried a variety of techniques to eliminate the maple trees and allow the nut trees to regenerate themselves," says Green.

First, Green cut the smallest maple trees (the size of a pencil to a broomstick) flush with the ground and sprayed the stumps with the herbicide Garlon. On trees with a diameter of 6 to 8 inches, Green made several inch-deep cuts all the way around



...as humans took control of the prairie, the natural process that kept a healthy balance in the tree population was eliminated...

the tree and sprayed Garlon in the girdlings. The largest maple trees, with diameters of 8 inches and up, were cut and harvested for firewood and lumber.

"On the trees that were cut off at the base, or the trees that were girdled, we had about a 90- to 95-percent non-survival rate," said Green. "After two or three years, if any of those grew up again, we would re-spray them."

Next, Green chose different areas of open forest, partially shaded forest, and densely shaded forest and tried three different methods to regenerate the nut trees in each area.

"Our first method allowed the areas to naturally regenerate. Whatever nuts fell from the trees, we let nature take its course," says Green. "We also planted bare root stock—seedling trees that come 20 to a bundle that fits in a grocery sack. Those are maybe a foot tall. Finally, we planted slightly larger trees from 1-gallon pots."

What were his results?

"Pretty much what you can imagine," he says. "In densely shaded forest, the natural generation worked the best and the potted plants all died out. In open forest, with no canopy, the potted plants flourished."

Today, Green says, the natural takeover by the hard nut trees is doing quite well.

"There are hundreds of tall oak and hickory and walnut trees out in that part of the woods. It's real nice down there. It looks like a traditional hardwood forest."

At this time, Green has no plans to market the byproducts of the forest, "although I certainly could if I wanted to," he says. "Income could definitely be garnered from the sale of nuts, firewood, or lumber. Veneer logs would be another byproduct, although it takes about 100 years to get a good veneer log. So those will be there for my grandchildren or great-grandchildren."

Green primarily uses the area for the personal enjoyment of his family and friends.

"It's an excellent deer habitat," he says, "so we mainly use the area to hunt. In fact, it's been so attractive to deer that a friend and I go down periodically and thin out a few more maple trees. It's also been a great habitat for morel mushrooms."

Green is clearly pleased with the results of his project, so much so that he has only one regret.

"I think I should have been more aggressive," he says. "Had I known then what I know now, I would have hired several people and done a lot more acreage."

By Leanne Lucas