

Indiana Department of Natural Resources Division of Forestry



Forest Recovery Over Time—A Pictorial Presentation

Background

It has been said that a picture is worth a thousand words. When it comes to woodland regeneration, a series of photos over time can provide a historical perspective that words alone could never communicate. The following photos with descriptions tell the story of a particular area of Morgan-Monroe State Forest after its harvest.

Tract across from the office:

The tract, located across from the State Forest office, was inventoried and deemed ready to harvest. The site was mature and in need of regeneration. The site has a loess cap on the ridge and is extremely productive, with a site index of 90-100 for tuliptree and red oak. During the course of marking the tract, a 9/10th acre group selection opening was created on an east/northeast aspect where the photos were taken.



The yellow area indicates the regeneration opening, with the red dot showing the location of the tree in the following series of photos.

The tract was cut in the fall of 1982.

The first photo was taken in the spring of 1983. The regeneration opening at that time was in the “weed” stage, with pokeweed being the dominant plant present. It had been growing about two months at the time this photo was taken. The tuliptree being tracked in this series of photos is in his left hand.





Year 2: 1984 - The trees were starting to assert themselves, with tuliptree the main species by number as would be expected on a good site that had been opened to full sunlight. There was little, if any, oak in the over story.

Year 3: 1985 – Tuliptrees are now approaching twelve feet in height and dominating the opening.



Year 4: 1986 – Trees are starting to create their own shade and suppress other vegetation.



Years 5 through 14: 1987 through 1996 – The trees continue to grow rapidly, with additional shading of the understory. Self-pruning of side limbs begins as shade deepens. The opening is beginning to take on the appearance of a forest again.



Years 15 through 24: 1997 through 2006 – rapid growth continues, dominant trees pass into pole stage and end the period as small sawtimber size. By this time only a knowledgeable person would even recognize this tract as having been harvested within the past 20 years.



Years 25 through 31: 2007 through 2013 – Tuliptrees in the photos are between 12 and 14 inches in diameter by 2010. The tract was harvested again in 2008, taking a total volume of 210,888 bd. ft.

Wound recovery of an individual tree

During a harvest it is inevitable that some trees will be damaged. The following series of photos chronicles the wound compartmentalization over 25 years of one particular tuliptree with skidder damage from this harvest.



1983



1988



1993



1998



2003



2008