

Indiana Department of Natural Resources – Division of Forestry
Draft Resource Management Guide
DRAFT

Yellowwood State Forest
Tract Acreage: 170 (Formerly tracts 25 & 26)
Forester: Jordan McGuckin (For Laurie Burgess)

Compartment: 8 Tract: 25
Commercial acres: 170
Date: 7/03/2014

Location

This tract is located between Scarce O’Fat and Jackson Creek Road about ten miles from Nashville, IN. It is in Section 36 of Township 9 North and Range 1 East and Section 31 of Township 9 North 2 East, in Brown County.

Figure 1. Yellowwood SF Compartment 8 Tract 25



General Description

This tract is a total of 170 acres on mainly north, south, and east, facing aspects. This tract was originally two separate tracts (25 and 26) but was combined in 2014. The tract lies within the central hardwood region with a majority of the overstory trees being oak and hickory. The majority of the trees are small to medium saw timber with large quality white oaks dispersed throughout. The tract is completely bordered by other state forest tracts except for the southwest

corner which borders private property. Table one below shows the species diversity composition for the tract.

Table 1. Species list by number of stems from most to least from July 2014 inventory of 6420825

Overstory	Understory	Regeneration
White oak	Sugar maple	Sugar maple
Black oak	American beech	American beech
Chestnut Oak	Pignut hickory	White ash
Scarlet oak	Red maple	White oak
Pignut hickory	White oak	Chestnut oak
Yellow poplar	Shagbark hickory	Shagbark hickory
Shagbark hickory	Virginia pine	Dogwood
Sugar maple	Yellow poplar	Ironwood
American beech	Blackgum	Blackgum
Virginia pine	Black oak	Bluebeech
Shortleaf pine	Scarlet oak	Black oak
Black cherry	Largetooth aspen	Hawthorn
Northern red oak	American elm	Sassafras
White ash	Basswood	
Largetooth aspen		
Blackgum		

History:

1976 Inventory; forester Williams
 1983 Harvest marked for tract 25, 132,145bf in 615 trees; forester Duncan
 1983 Timber for tract 25 sold to Foley for \$18,750.
 1984 TSI completed for tract 25
 1985 Road Maintenance completed along Scarce O Fat
 1990 Tract 26 inventoried and marked, 121,946 bf in 507 trees; forester Unversaw
 1990 Timber bought by Chet Morgan for \$23,180
 1991 Timber harvested
 1994 Vine control work completed in tract 25 openings
 2014 Tract 25 and 26 were combined

Topography, Geology, and Hydrology:

This tract is composed of mainly two ridges with north and south facing slopes. A majority of the hills have gradual slopes with some very steep slopes. The soil types noted in next section are unglaciated soils and have formed from the bedrock material of sandstone, shale and siltstone. This tract is located within the Jackson Creek to Salt Creek watershed and includes intermittent tributaries to Jackson Creek

Soils:

Beanblossom (Be) is characterized by nearly flat or very gentle sloping terrain with well-drained soils; 5% of tract acreage. Slight to moderate limitations. (Purple)

Pekin silt loam (PeB) 2-6 % slopes. Gently sloping, deep, moderately well drained. Slight harvest limitations due to fragipan restricting water movement so soil is often saturated in winter and spring. 3% of tract acreage. (Tan)

Berks-Trevlac-Wellston (BgF) has moderately steep to very steep slopes ranging from 20 to 70% grade; 70% of tract acreage. Severe limitations noted for logging due to slope. (Yellow)

Wellston-Berks-Trevlac (WaD) has moderately sloping to steep grades between 6 - 20% ; 22% of tract acreage. Slight to moderate limitations. (Aqua)

Figure 2. Yellowwood SF Compartment 8 Tract 20 Soils



Access

Access from the east is off of Jackson Creek Road and from the west off of Scarce O'Fat firetrail.

Boundary

This tract is surrounded by state forest except for the southeast corner, which borders private property. Boundary lines are updated regularly, with this one last painted in 2011.

Wildlife

Wildlife resources in this tract are abundant. Common species which are present include: squirrels, white-tailed deer, turkey, various small furbearing animals, and a variety of songbirds. An official ecological review was completed on the tract. This review focuses on wildlife

habitat, looking at what is present in the tract and what can be created through management activities.

A Natural Heritage Database Review was completed for Y0825. If Rare, Threatened or Endangered species (RTE's) were identified for this tract, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

The Division of Forestry has instituted procedures for conducting forest resource inventories so that the documentation and analysis of live tree and snag tree densities are examined on a compartment and tract level basis in order to maintain long-term and quality forest habitats. Crown release performed during the planned timber harvest will stimulate the growth of the selected residual trees and will enhance the vigor of these trees. Snag levels currently exceed maintenance levels for larger diameter classes (>19" dbh). Snags for smaller diameter classes are somewhat below the suggested maintenance level. Timber Stand Improvement (TSI) following the harvest is planned which will increase standing snag counts. Management practices prescribed will be conducted in a manner that will enhance forest habitat diversity for wildlife populations.

Communities

Y0825's ridgetops and sideslopes are comprised mostly of mesic upland hardwoods dominated by mixed oaks and mixed hardwoods. These overstory tree species include white oak, yellow-poplar, chestnut oak and black oak. The understory consists mainly of sugar maple, american beech, and yellow-poplar. The ground cover consists of mainly mesic to dry mesic species.

Invasive/Exotic Species

Japanese stilt grass and multi-flora rose are the main invasive species present on this tract. Multi-flora rose is dispersed throughout the tract with the heaviest infestation being towards the southeast side along the creek. Japanese stilt grass is present in the stream bottom and on top of the main ridge on the old skid trails. The stilt grass and multi-flora are to be monitored and prescribed for treatment as needed to meet management objectives. .

Recreation

Primary recreational use is hunting and wildlife viewing with access from Scarce O'Fat firetrail.

Cultural

This tract was reviewed for cultural sites during the forest resource inventory. Cultural resources may be present on this tract but their location(s) are protected. Adverse impacts to significant cultural resources will be avoided during any management or construction activities.

Inventory Results Current inventory completed by McGuckin July 2014

Table 2. Total Present Board Feet Volume Report for Y0825

SPECIES	TOTAL BF
American Beech	21,600
Black Cherry	5,960
Black Gum	2,770
Black Oak	221,200
Black walnut	3,670
Chestnut Oak	123,690
Northern Red Oak	106,470
Pignut Hickory	96,300
Sassafras	0
Scarlet Oak	58,610
Shagbark Hickory	33,210
Sugar Maple	53,150
White Ash	28,900
White Oak	450,550
Yellow Poplar	41,860
PER ACRE	7,345
TRACT TOTAL	1,245,520

Table 3. Present Tract Stocking Y0825

Tract Acreage	170 acres	Present Volume per Acre	7,330 bd. ft.
Basal Area per Acre	93.3 sq. ft.	Harvest Volume per Acre	1,340bd. ft.
Number Trees per Acre	148	Residual Volume per Acre	5,980 bd. ft.
Stocking Percentage	74%	Average Tree Diameter	11" dbh

Tract Prescription and Proposed Activities

This tract comprises of 170 acres of mixed hardwoods mainly oak and hickory. A managed harvest is prescribed on this tract. The ash volume should be salvaged due to expected mortality by emerald ash borer, which is steadily spreading through the forest. There are also yellow-poplar prescribed for removal due to the damaged received from past years droughts and tuliptree scale. The quality oak could also be thinned to release the highest quality, most vigorous stems. A majority of the harvest volume will be coming from chestnut, black, and scarlet oak to thin the oak areas for health and vigor.

Summary Tract Silvicultural Prescription and Proposed Activities

The prescription for Y0825 is a combination improvement and selection cutting type of harvest over most of the tract acreage. The Indiana guidelines for Best Management Practices (BMP's) will be followed during the timber harvest and closeout activities to maintain water quality. The prompt installation of water diversions following harvesting will be employed to minimize any effects to neighboring water resources. The proposed harvest will entail both singletree and group selection cuttings. Single tree selection will remove low grade, poorly formed, and declining overstory individuals so that spacing of residual trees is improved to increase the growth and vitality of the

residual tract. Group selections will be prescribed in aggregations of timber that are inadequately stocked, contain poor quality, or contain stockings with declining vigor. This will improve habitat diversity, including important pockets of early successional habitat which is limited on the landscape. Expected regeneration includes Tulip poplar, Black cherry, White ash, hickory and associated species, including a variety of oaks found on the tract

Portions of or all of Y0820 will be submitted for a postharvest Timber Stand Improvement (TSI) project along with any invasive work if deemed appropriate by the administering forester. A field review for regeneration opening success is planned 3-4 years after opening TSI completion.

Given the recent inventory and growth of Y0825's forest resources, this tract is suitable for a 15 year management cycle wherein growth and development of the tract's forest resource is evaluated by a forest inventory every 15 years. The current inventory indicates a possible harvest of between 175 to 300 MBF. A timber sale is proposed for FY2015-16.

Proposed Activities Listing

Harvest marking and timber sale	2015-16
Timber Stand Improvement	2016-17
Regeneration check and invasive species monitoring and treatment as warranted	2020
Tract inventory and management guide	2030

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