

FOREST MANAGEMENT PLAN

For the
Davis Purdue Agriculture Center
(Davis PAC)

Prepared by Don Carlson-Purdue University Forester
December 2004

1. Legal Description and Location

The Davis PAC is located in Section 23, Township 21 North, Range 12 East, containing 622.5 acres in Randolph County, IN. The property is located approximately 15 miles north northeast of Muncie, IN. It is accessed off of State Road 1 between 600 North and 700 North.

2. Physical Description

Soils: Pewano silty clay loam and Blount silt loam are the two primary soil types. They are both poorly to very poorly drained with minimal slopes 0-2%. The major limitations are wetness, ponding, and potential windthrow. Erosion is not a concern. Site index (SI) is a standard measure of soil capability for growing trees. SI is simply how tall a non-suppressed tree can grow in 50 years. The SI for pin oak on Pewano silty clay loam is 90. The reported SI for red and white oak on Blount silt loam is 65.

Topography: The property is typical of the Tipton Till Plain in that it has minimal relief and gentle slopes. Its maximum elevation above sea level is 970 while the minimum is just under 960 feet along Elkhorn Creek). Several poorly drained depressional areas exist.

Acreage: The total property contains 622.5 acres of which 126.4 acres are established woodlands. The woodlands are divided into 4 primary stands.

1. 51 acres (old growth forest)
2. 19.9 acres
3. 33.3 acres
4. 7.0 acres

Total Acres: 111.2 acres*

*(There is an additional unmanaged 5.2 acre stand in the far northeast corner of the property and a 10 acre stand of more recently grazed woodlands south of Elkhorn Creek.)

Property lines: Property lines are easily distinguishable or not an issue as the individual woodlands are primarily well within the bounds of the PAC and are bounded by agricultural fields or roads.

3. Forest Description

Background: Prior to 1917, the woodlands were doubtlessly protected for many years except for probable minimal disturbances such as sanitation cutting and grazing by cattle. In 1917, Martha F. Davis bequeathed 385 acres to the state of Indiana for the use and benefit of the Trustees of

Purdue University. Within this agreement, several stipulations were agreed to. Of prominent importance in management considerations are three stipulations summarized below.

- Purdue “agrees to keep the present wooded tract on the farm as a forest reserve, to be an example of Indiana native forest, preserving all native trees and plants in their natural condition. It is further agreed that no timber shall ever be cut or sold for commercial purposes from this tract.”

However, in the following paragraph, it is stated that “Trees damaged by action of the elements, it shall be permitted to cut the same and in that event the timber from the trees so cut shall be used in making improvement on the said real estate, and in no case or under no circumstances shall any timber be sold for commercial purposes.....”

- Purdue also “agrees to keep and maintain the forest land in such condition that it will be a refuge for all song birds and other useful birds.....and at no time shall it be permitted to be used by the sportsman for the sport of killing any birds or game....”
- Purdue “shall endeavor to keep from becoming extinct our fine native wild flowers, medicinal plants and trees.....”

Purdue University and its Department of Forestry and Natural Resources understand the importance of preserving this forest. The Department also understands that if the first two points of this agreement are maintained to the letter, the last point will not be met. For example, it is now known that the natural oaks are not regenerating in the understory and that over time they will continue to decline in numbers while more shade tolerant species will continue to increase. It is also a fact that uncontrolled wildlife species, especially white-tailed deer, can do serious harm to the flora of a forest. This impacts the forest and the species which inhabit it for many years to come. Over time the conflicts of these agreements became increasingly clear to Purdue University staff charged with managing this treasured resource.

To assist in understanding of how the will of Mrs. Davis was used and interpreted in the management of the Davis PAC woodlands, it is necessary to summarize some of the events of the past. This is accomplished nicely in a 1964 report concerning the Davis PAC woodlands, by Thomas W. Beers, associate professor of forestry. He stated the following:

“Up until 1960, although more than 100,000 board feet of lumber were cut from storm damaged and defective trees (observe the many farm buildings built from this lumber), little formal forest management was practiced. This was primarily due to the interpretation of the Davis’ will – that no commercial sale of timber could take place. The Department of Forestry felt, however, that maintaining the large 51-acre woodland in a natural condition while managing the remaining woodlands according to sound forestry practices was within the intent of the will, and to this end an initial forest management plan was prepared. This plan has as its main objective “the maintenance of the woodlots in a natural and productive condition as an example of an “Indiana native forest.” Removal of trees will be done in an orderly fashion so as to build up the growing stock of the woodlots and provide for their perpetuation as a combined producing unit. The 51-acre woodlot which is a fine example of old-growth, will be preserved as a natural area where no cutting will be done, except to utilize damaged or dying trees if their removal does not seriously affect research being carried out in the compartment.

In December, 1963, authorization was received from the University to “cut timber on this farm in accordance with sound forestry practices, provided that the net income from such cutting be applied to improvement to the woodlots on the Farm.” Income and expenditures are to be reported annually to the Board of Trustees.”

Since this time, two additional timber sales were completed in 1964 (Comp. 3 & 4) and 1979 (Comp. 3) along with other forest health and vigor improvement practices such as timber stand improvement and grape vine control. In addition, the 51 acre Compartment 1 was officially dedicated as a National Natural Landmark by the National Park Service on April 7, 1975.

Stand Characteristics: The forest is uneven-aged over all with pockets of even-aged trees from past disturbances. The past management has been to maintain this characteristic while maintaining the health and regeneration of the diversity of species on the woodlands.

Species Composition: The overstory is a mix of typical upland hardwood species including oak, maple, walnut, ash, basswood, beech and hickory. The midstory and understory of the undisturbed compartments are increasingly dominated by shade tolerant species, mainly sugar maple. For example, Compartment 2’ maples per acre increased from 25 (12.2%) in 1986 to 42.5 (21.4%). While shade tolerant tree numbers are increasing, shade intolerants such as ash trees are declining in undisturbed compartments. As time progresses and the large diameter canopy trees, especially the oaks, begin to die out, the forest will continuously convert to a climax forest of shade intolerant tree species such as maple and beech barring no major disturbances that create large gaps in the forest canopy. Compartment 3 has received some management over the last 40 years in the form of two timber harvests and timber stand improvement. The changes in numbers of a given species by percentage of the total number of trees per acre have been maintained to within a few percentage points for all species. In addition, the managed compartments (3 & 4) have a stable and often rising number of shade intolerant species such as ash and basswood. The oaks still show minimal if any regeneration.

General Size Classes: The forest canopy in compartments 1 and 2 is dominated by large to very large saw timber trees such as red, white, swamp white, and bur oak along with large ash and walnut. Some of the oaks, especially in Compartment 1, exceed 3 feet in diameter. The managed compartments also maintain a canopy of large saw timber trees of similar species distribution except in the small openings created during the 1964 or 1979 harvests. These once open areas now contain pole to post sized trees, especially in Compartment 3 where the timber harvesting was complimented by timber stand improvement.

Below is a brief chart comparing the average diameter of trees by compartment for years 1986 and 2004.

| COMPARTMENT | AVE. DBH OF TREES GREATER THAN 3 INCHES DBH | |
|-------------|---|------|
| | 1986 | 2004 |
| 1 | - | - |
| 2 | 9.3 | 10.8 |
| 3 | 9.7 | 10.1 |
| 4 | 9.3 | 9.8 |

Stocking: Forest stocking is a measurement of forest density and is primarily influenced by site quality, age, and species. Stocking is theoretically determined by measuring the amount of surface area on the cut surface of stumps if all the trees in a given area were cut off at 4.5 feet above the ground. This is called the basal area (BA) and is generally given in ft² per acre. This measurement is taken through nondestructive means by measuring tree diameters at dbh. All trees can be measured or various sampling techniques can be used to determine basal area.

Below is a brief chart comparing the BA by compartments for years 1986 and 2004. It is important to realize that Compartment 2 has not been cut in many years, Compartment 3 was cut in 1964 and 1979, and Compartment 4 was last cut in 1964. Compartment 3 has also had timber stand improvement which has deadened numerous damaged and defective trees or trees excessively competing with desired crop trees.

| COMPARTMENT | AVE. BA OF TREES GREATER THAN 3 INCHES DBH | |
|-------------|--|-------|
| | 1986 | 2004 |
| 1 | - | - |
| 2 | 97.4 | 126 |
| 3 | 88.6 | 129.9 |
| 4 | 97.8 | 128 |

Inventory Data: See attached 1986 and 2004 Volume Summaries for CFI Plots on Compartments 2, 3, & 4.

An important segment of the data that can be easily demonstrated by the inventory data is how the timber volume of a woodland is influence through management over time. The timber volume is influenced by soils and environmental factors along with the tree species grown and the competition each species is encountering. The Davis PAC offers a unique opportunity to compare these changes in volume assuming the soils and environmental factors have been relatively consistent on all compartments and that all compartments started off with the same comparable mix of species and size classes.

| COMPARTMENT | Timber Volume Harvested / Acre (Board Feet Doyle) | | Volume per Acre (Board Feet Doyle) | | Total Volume Grown During Last 18 Years (Board Feet Doyle) |
|-------------|--|------|---------------------------------------|------|---|
| | 1964 | 1979 | 1986 | 2004 | 2004 |
| 1 | - | - | - | - | - |
| 2 | - | - | 4961 | 9150 | 4189 |
| 3 | 1759 | 1970 | 5654 | 9244 | 7319 |
| 4 | 1759 | - | 3217 | 5791 | 4333 |

4. Unique Features

Physical: Woodlands in highly productive agricultural lands are generally on the poorly drained lands and have typically been heavily disturbed by grazing, burning, or excessive / poorly executed timber harvests. The Davis PAC woodlands are an exception. It is situated on some poorly drained / depressional areas, but its protection has resulted in minimal disturbance over most of the acres with some areas of light to moderate disturbance through the harvesting of timber.

Biological: This forest provides excellent wildlife habitat for a variety of species, none of which are known to be endangered or threatened.

Cultural: The Davis family obviously had a tremendous appreciation for the outdoors, especially in regards to the forest and birds. This is reflected in their strong desire to see this forest protected.

5. History

Acquisition Date: In 1917, Martha F. Davis gifted 385 acres to Purdue University in honor of her deceased son. This original acreage contains Compartments 1-4.

Fire: A surface fire occurred in the western 6-7 acres of Compartment 1 in April of 1971. The fire reportedly killed a few larger trees and considerably opened up the understory.

Grazing: Compartments 1-4 have thankfully been protected from grazing since at least 1921. The 10 acre section of woods east of Compartment 1 and south of Elkhorn Creek was grazed until more recently.

Inventory:

- 1926-7: The first recorded timber inventory was accomplished by Professor Burr N. Prentice when he measured, tagged, and recorded data on all trees greater than 4" dbh. This involved a massive amount of data from over 7,000 trees to be calculated without the aid of computers.
- 1959: J.C. Callahan installed and measured 61 one-fifth acre permanent, continuous forest inventory (CFI) plots. On these plots, all trees 3.0" dbh and greater are measured while all trees 9.0" dbh and greater are permanently numbered and data taken such as species, dbh, merchantable length, tree height, volume, grade, tree health, soundness, and status.
- 1961-2: T.W. Beers completed a 100% inventory by species and diameter class on Compartment 1.
- 1971: A 100% inventory was completed in compartment 1. All trees 5.0" dbh and greater were measured.
- October 1975: CFI plots in Compartment 2, 3, and 4 were remeasured by L. Fix.
- *February 1986: CFI plots in Compartments 2, 3, and 4 were remeasured by G. Parker.
- *July 2004: CFI plots in Compartments 2, 3, and 4 were remeasured by D. Carlson.

Research Studies: Several research studies have taken place on the Davis PAC. Some very important research data is on going in the form of CFI and 100% inventory data. Through this data, there is ample base information to compare to more recent inventories in an effort to understand how natural and managed forests change over time.

Additional Davis PAC research projects are listed below.

| Project | Compartment | Initiation Date | Principle Investigator |
|--|--------------------|------------------------|-------------------------------|
| Forest Ecology | 1 | 1976 | George Parker |
| Growth of Natural Oak Seedlings vs. Seedling Sprouts | 3 | 1979 | George Parker |
| Artificial Regeneration of Red Oak | 3 | 1980 | Phil Pope |

Harvests: The first recorded timber harvest took place in 1941. During 1941-1963, approximately 104,000 board feet of lumber was harvested from the Davis PAC and was used as farm lumber to build structures on the property. In 1964, a timber sale was conducted on Compartments 3 and 4 in which 70,362 board feet of timber were sold for \$3,611. In 1979, a second timber sale was conducted on Compartment 3 in which 65,040 board feet of timber were sold for \$30,300.

Specific Management Activities: This forest has been managed in one degree or another since the Davis's first lived on the property. The initial management had been primarily in the form of harvesting dead, dying, and damaged trees. The harvest of 1964 and 1979 were performed to not only remove dead, dying, and damaged trees but also trees of poor vigor and form, especially where they were competing with other more desirable trees.

In addition to the harvesting, several other management activities have taken place.

- 1966 All fences around the woodlots were repaired.
- 1975 13.4 acres of TSI were completed in Compartment 2 to release walnut pole and small sawtimber from excessive crown competition. Grape vines were also cut.
- 1978 13.1 acres of TSI were completed on the south half of Compartment 3 to deaden grapevines and cull trees.
- 1980 Five 1/5th acre plots lacking desirable reproduction were cleared and planted to red oak seedlings in compartment 3 in a research study conducted by Phil Pope.
- 1982 An access trail was established in Compartment 3. Grape vines were controlled.

6. Forest Management Concerns

The major forest management concern is how to maintain the health and vigor of this important forest resource for generations to come while meeting as nearly as possible the desires of the Davis will.

7. Management Objectives

The present objectives for ownership of this property are:

- To ensure the forest is protected for future generations to enjoy.
- To encourage and support the use of the forest for educational purposes.
- To continue to preserve Compartment 1 in its natural state with minimal unnatural disturbances while periodically conducting a 100% inventory.
- To continue to manage Compartments 2, 3, and 4 using sound forest management practices to maintain and enhance the health, vigor, and productivity of the forest for research and demonstration purposes.
- To continue to remeasure the CFI plots to track the long term changes occurring in this forest and relay that information through public / professional educational programs.

8. Implementation Plan

Realizing the importance of this forest for its natural value and education / demonstration potential, the continued periodic inventories should be a priority. Compartment 1 should continue to be protected from unnatural disturbances. Compartments 2, 3, and 4 should be managed using sound forest management practices, including harvesting, to demonstrate how these practices affect the long term characteristics / productivity of native Indiana woodlots.

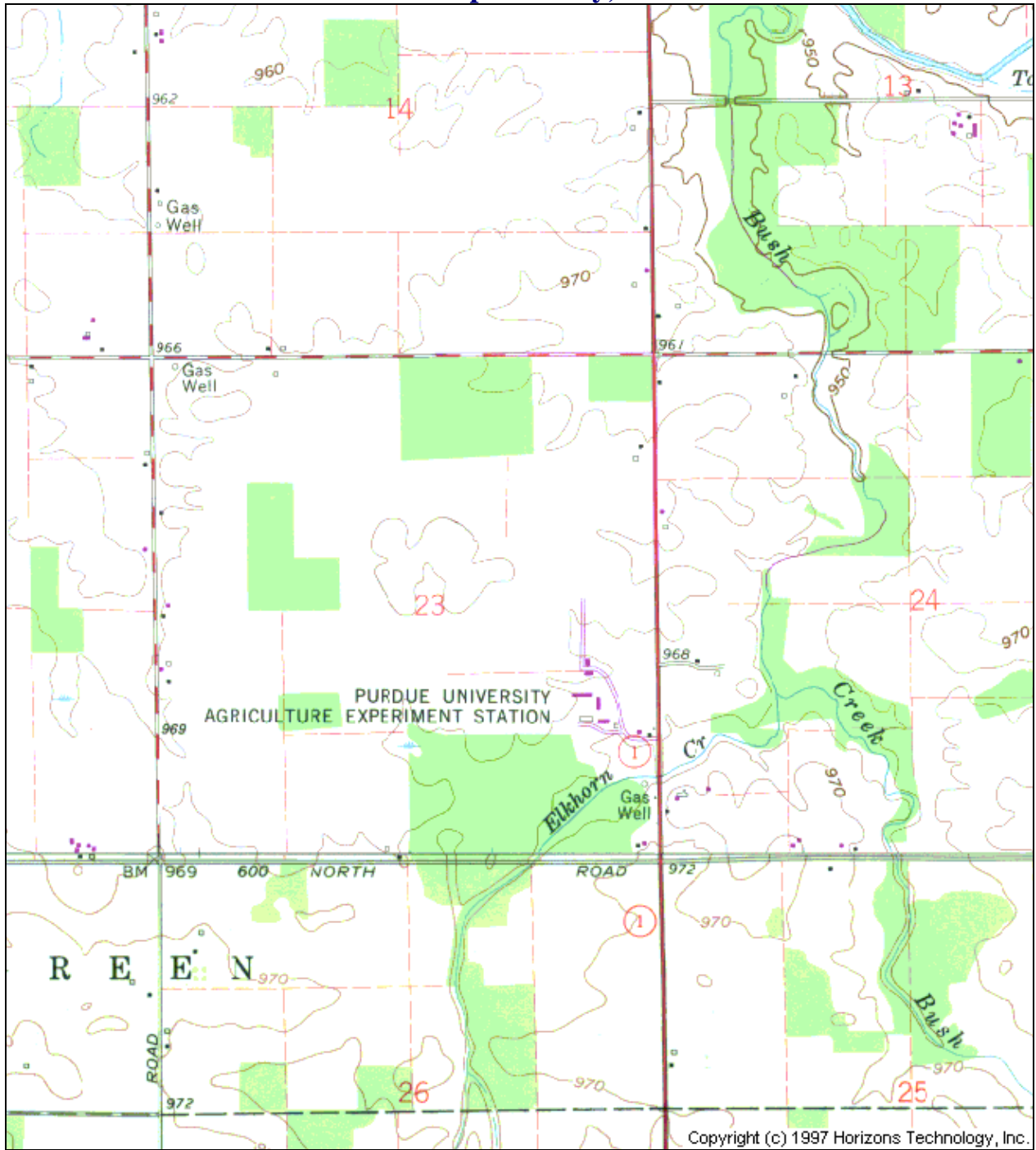
Purdue University staff, especially extension, should be available to assist as needed in public educational programs.

9. Summary

| Year | Task to be completed |
|---------|--|
| 2005 | Complete pre-harvest vine control on Compartments 2, 3, and 4. |
| 2005-6 | Mark an improvement harvest on Compartments 2, 3, and 4 to remove damaged, dying, and defective trees and those excessively competing with healthy, more desirable trees. In some cases where there are few if any healthy, desirable overstory trees, the creation of natural regeneration openings should be considered. All harvested compartments should be followed up with post-harvest TSI. |
| 2009-14 | Conduct a 100% inventory of Compartment 1 and remeasure CFI plots on Compartments 2, 3, and 4. |
| 2014-19 | Consider conducting a timber harvest on Compartments 2, 3, and 4 according to the above guidelines. |

Davis PAC

Randolph County, IN



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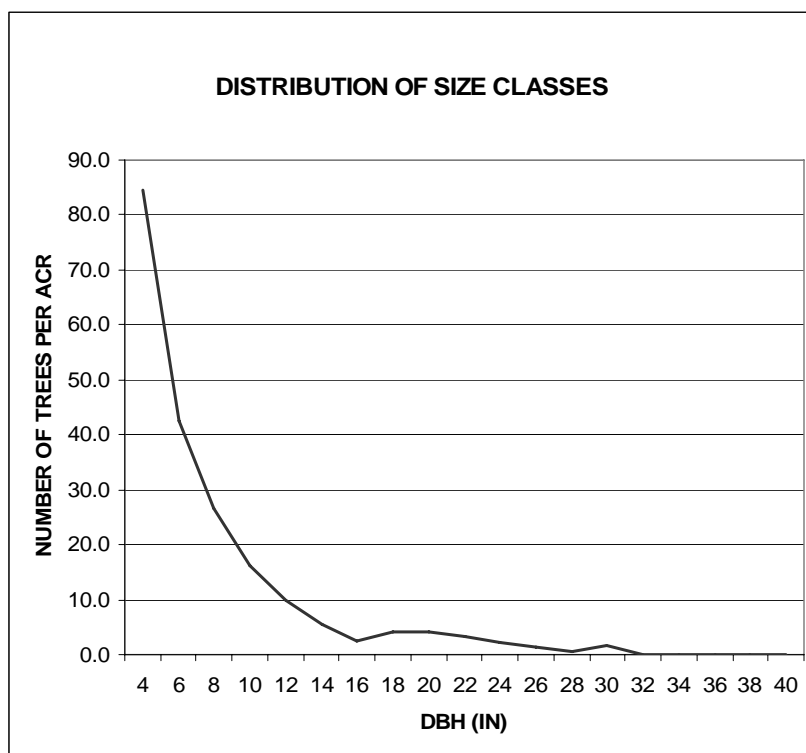
SUMMARY AND ANALYSIS OF CFI

OWNER: Purdue University
COMPARTMENT: Davis PAC- Comp. 2
ACRES: 20.00

DATE: February 1986
FORESTER: G. Parker

This inventory was accomplished by measuring all trees greater than 3" on 1/5 acre plots.
 Sawtimber trees (9"+ dbh) measured on 12 plots. Pole trees (3" - 8.9" dbh) measured on 12 plots.
 All figures for volume are in board-feet (bd-ft) Doyle, all figures for basal area (BA) are in square feet, and all figures for diameter at breast height (dbh) are in inches. Volumes were adjusted for soundness and reconciled to other inventories.

| SUMMARY BY SIZE CLASS | | | |
|------------------------------|---------------|----------------|-------------------|
| DBH | VOL. PER ACRE | TREES PER ACRE | BASAL AREA / ACRE |
| 4 | | 84.6 | 7.4 |
| 6 | | 42.5 | 8.3 |
| 8 | | 26.7 | 9.3 |
| 10 | | 16.3 | 8.9 |
| 12 | 37 | 10.0 | 7.9 |
| 14 | 231 | 5.4 | 5.8 |
| 16 | 306 | 2.5 | 3.5 |
| 18 | 693 | 4.2 | 7.4 |
| 20 | 956 | 4.2 | 9.1 |
| 22 | 929 | 3.3 | 8.8 |
| 24 | 618 | 2.1 | 6.5 |
| 26 | 598 | 1.3 | 4.6 |
| 28 | 199 | 0.4 | 1.8 |
| 30 | 395 | 1.7 | 8.2 |
| 32 | | | |
| 34 | | | |
| 36 | | | |
| 38 | | | |
| 40 | | | |
| TOTAL | 4961 | 205.0 | 97.4 |



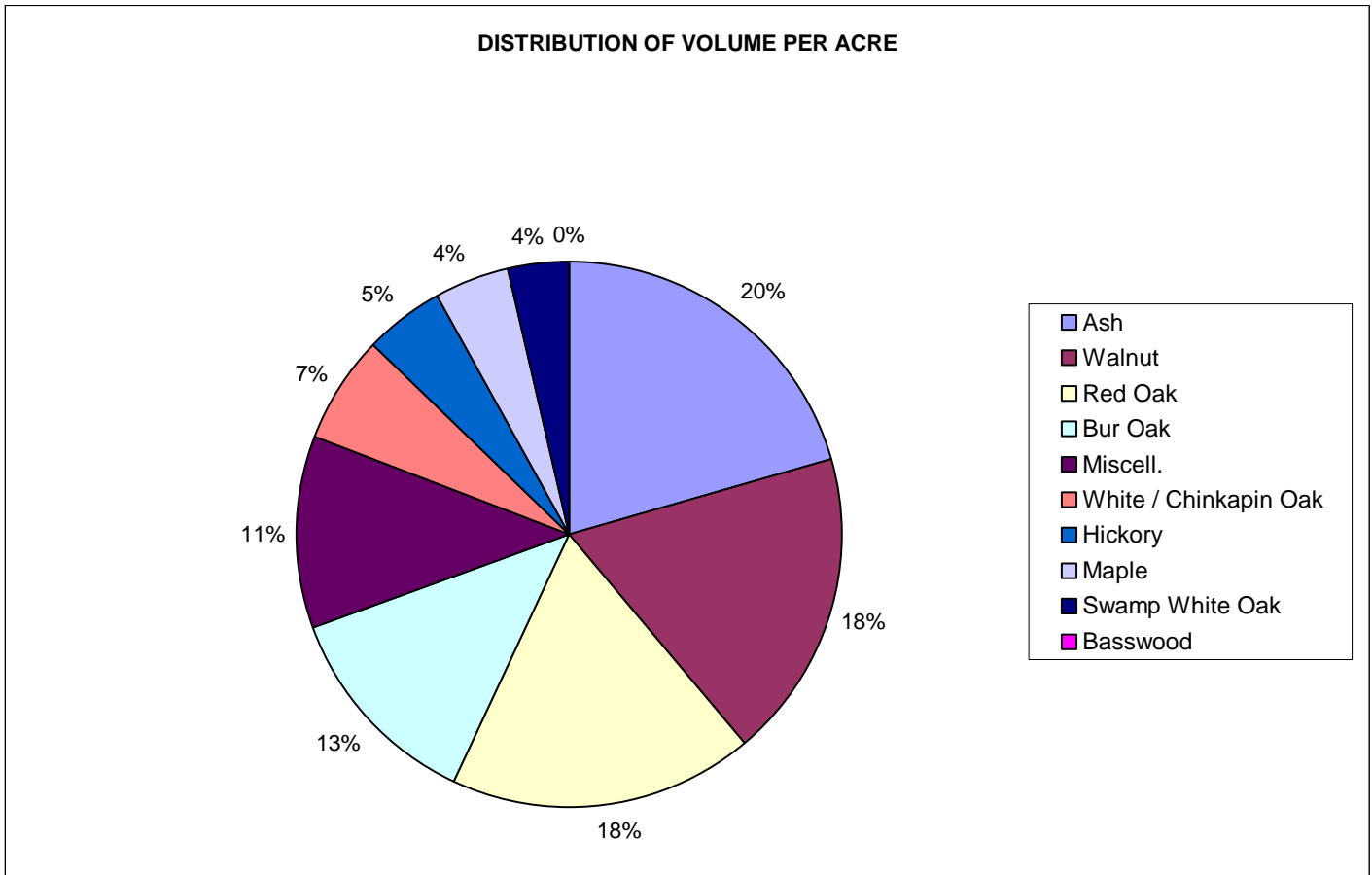
| SUMMARY BY SPECIES | | | | | | | | |
|---------------------------|---------------|-----------------------|----------------|------------------------|-------------------|---------------------|------------|--------------------|
| SPECIES | VOL. PER ACRE | PCT. OF PER ACRE VOL. | TREES PER ACRE | PCT. OF PER ACRE TREES | BASAL AREA / ACRE | PCT. OF PER ACRE BA | AVG. DBH | TOTAL STAND VOLUME |
| Ash | 1016 | 20.5% | 10.4 | 5.1% | 13.3 | 13.7% | 15.3 | 20,325 |
| Walnut | 909 | 18.3% | 6.3 | 3.0% | 10.4 | 10.7% | 17.5 | 18,175 |
| Red Oak | 899 | 18.1% | 4.2 | 2.0% | 11.2 | 11.5% | 22.2 | 17,983 |
| Bur Oak | 624 | 12.6% | 10.0 | 4.9% | 9.4 | 9.6% | 13.1 | 12,475 |
| Miscell. | 561 | 11.3% | 83.3 | 40.7% | 19.9 | 20.4% | 6.6 | 11,217 |
| White / Chinkapin Oak | 324 | 6.5% | 1.3 | 0.6% | 2.7 | 2.8% | 20.1 | 6,475 |
| Hickory | 236 | 4.8% | 57.1 | 27.8% | 19.3 | 19.8% | 7.9 | 4,717 |
| Maple | 212 | 4.3% | 25.0 | 12.2% | 7.2 | 7.4% | 7.3 | 4,242 |
| Swamp White Oak | 181 | 3.6% | 2.9 | 1.4% | 3.0 | 3.1% | 13.8 | 3,617 |
| Basswood | | | 4.6 | 2.2% | 0.9 | 0.9% | 5.9 | - |
| PER ACRE TOTALS | 4961 | 100.0% | 205.0 | 100.0% | 97.4 | 100.0% | 9.3 | 99,225 |

OWNER: Purdue University
 TRACT: Davis PAC- Comp. 2
 ACRES: 20.00

DATE:
 FORESTER:

February 1986
 G. Parker

| SUMMARY OF VOLUME PER ACRE BY SPECIES AND SIZE CLASS | | | | | | | | | | | |
|--|-------------------------|------------|------------|------------|------------|-----------------------|------------|------------|-----------------|----------|---------------|
| DBH | *** SPECIES LISTING *** | | | | | | | | | | VOL. PER ACRE |
| | Ash | Walnut | Red Oak | Bur Oak | Miscell. | White / Chinkapin Oak | Hickory | Maple | Swamp White Oak | Basswood | |
| 12 | 10 | | | | 10 | | 4 | 14 | | | 37 |
| 14 | 17 | 82 | 60 | 47 | | | 17 | | 8 | | 231 |
| 16 | 54 | | | | 153 | | 54 | | 46 | | 306 |
| 18 | 136 | 86 | 150 | 211 | 35 | 75 | | | | | 693 |
| 20 | 263 | | | 231 | 164 | 99 | | 198 | | | 956 |
| 22 | 106 | 419 | 127 | | | 150 | | | 127 | | 929 |
| 24 | | 322 | | 135 | | | 161 | | | | 618 |
| 26 | 166 | | 233 | | 200 | | | | | | 598 |
| 28 | 199 | | | | | | | | | | 199 |
| 30 | 65 | | 330 | | | | | | | | 395 |
| 32 | | | | | | | | | | | |
| 34 | | | | | | | | | | | |
| 36 | | | | | | | | | | | |
| 38 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| VOL./ACRE | 1016 | 909 | 899 | 624 | 561 | 324 | 236 | 212 | 181 | | 4961 |



**PURDUE UNIVERSITY
DEPARTMENT OF FORESTRY & NATURAL RESOURCES**

SUMMARY AND ANALYSIS OF CFI

OWNER: Purdue University
COMPARTMENT: Davis PAC- Compartment 3
ACRES: 33.30

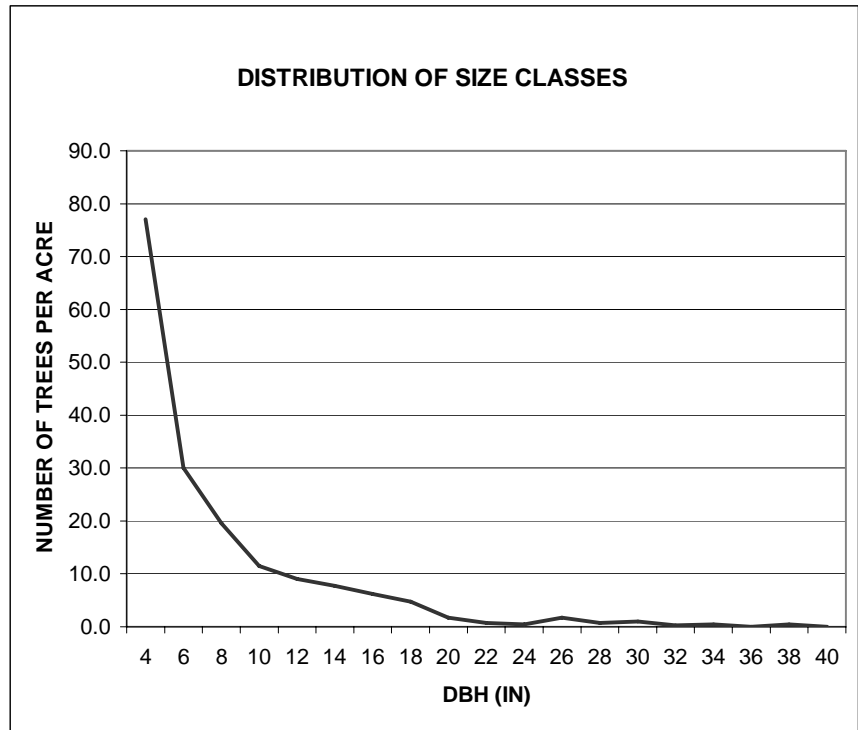
DATE: February 1986
FORESTER: G. Parker

This inventory was accomplished by measuring all trees greater than 3" on 1/5 acre plots.

Sawtimber trees (9"+ dbh) measured on 20 plots. Pole trees (3" - 8.9" dbh) measured on 20 plots.

All figures for volume are in board-feet (bd-ft) Doyle, all figures for basal area (BA) are in square feet, and all figures for diameter at breast height (dbh) are in inches. Volumes were adjusted for soundness and reconciled to other inventories.

| SUMMARY BY SIZE CLASS | | | |
|------------------------------|---------------|----------------|-------------------|
| DBH | VOL. PER ACRE | TREES PER ACRE | BASAL AREA / ACRE |
| 4 | | 77.0 | 6.7 |
| 6 | | 30.0 | 5.9 |
| 8 | | 19.5 | 6.8 |
| 10 | | 11.5 | 6.3 |
| 12 | 72 | 9.0 | 7.1 |
| 14 | 330 | 7.8 | 8.3 |
| 16 | 590 | 6.3 | 8.7 |
| 18 | 645 | 4.8 | 8.4 |
| 20 | 429 | 1.8 | 3.8 |
| 22 | 139 | 0.8 | 2.0 |
| 24 | 227 | 0.5 | 1.6 |
| 26 | 773 | 1.8 | 6.5 |
| 28 | 472 | 0.8 | 3.2 |
| 30 | 540 | 1.0 | 4.9 |
| 32 | 169 | 0.3 | 1.4 |
| 34 | 608 | 0.5 | 3.2 |
| 36 | | | |
| 38 | 662 | 0.5 | 3.9 |
| 40 | | | |
| TOTAL | 5654 | 173.5 | 88.6 |



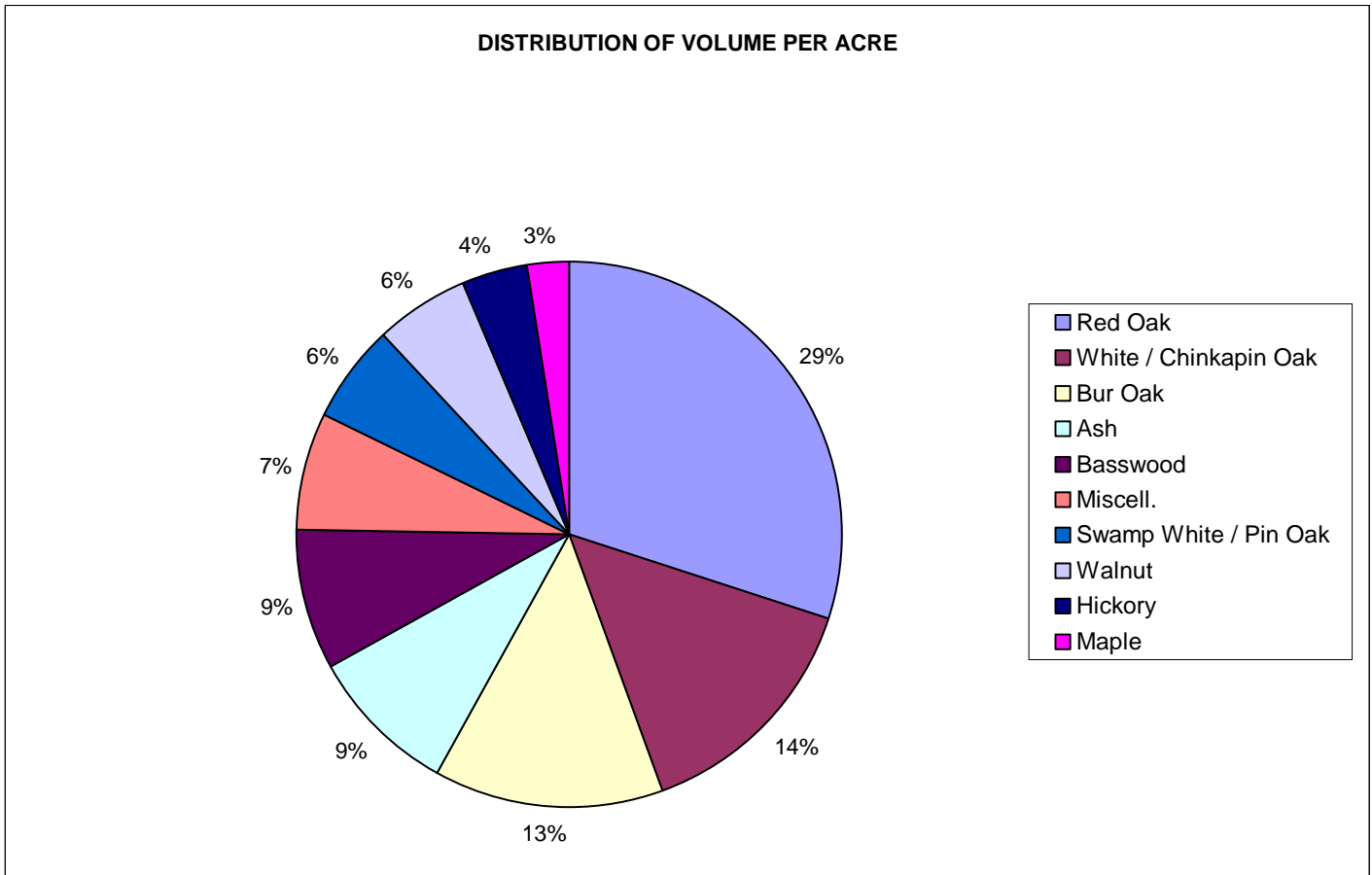
| SUMMARY BY SPECIES | | | | | | | | |
|---------------------------|---------------|-----------------------|----------------|------------------------|------------------|---------------------|------------|--------------------|
| SPECIES | VOL. PER ACRE | PCT. OF PER ACRE VOL. | TREES PER ACRE | PCT. OF PER ACRE TREES | BASAL AREA/ ACRE | PCT. OF PER ACRE BA | AVG. DBH | TOTAL STAND VOLUME |
| Red Oak | 1694 | 30.0% | 6.5 | 3.7% | 13.3 | 15.0% | 19.4 | 56,402 |
| White / Chinkapin Oak | 821 | 14.5% | 2.3 | 1.3% | 6.2 | 7.0% | 22.4 | 27,339 |
| Bur Oak | 766 | 13.5% | 3.3 | 1.9% | 6.0 | 6.7% | 18.3 | 25,491 |
| Ash | 497 | 8.8% | 20.8 | 12.0% | 9.7 | 10.9% | 9.3 | 16,558 |
| Basswood | 485 | 8.6% | 18.3 | 10.5% | 11.6 | 13.1% | 10.8 | 16,142 |
| Miscell. | 390 | 6.9% | 86.8 | 50.0% | 21.0 | 23.8% | 6.7 | 12,995 |
| Swamp White / Pin Oak | 324 | 5.7% | 4.5 | 2.6% | 3.6 | 4.0% | 12.0 | 10,798 |
| Walnut | 316 | 5.6% | 6.3 | 3.6% | 6.8 | 7.7% | 14.2 | 10,523 |
| Hickory | 216 | 3.8% | 8.5 | 4.9% | 5.3 | 6.0% | 10.7 | 7,193 |
| Maple | 145 | 2.6% | 16.5 | 9.5% | 5.1 | 5.7% | 7.5 | 4,829 |
| PER ACRE TOTALS | 5654 | 100.0% | 173.5 | 100.0% | 88.6 | 100.0% | 9.7 | 188,270 |

OWNER: Purdue University
 TRACT: Davis PAC- Compartment 3
 ACRES: 33.30

DATE:
 FORESTER:

February 1986
 G. Parker

| SUMMARY OF VOLUME PER ACRE BY SPECIES AND SIZE CLASS | | | | | | | | | | | |
|--|-------------------------|-----------------------|------------|------------|------------|------------|-----------------------|------------|------------|------------|---------------|
| DBH | *** SPECIES LISTING *** | | | | | | | | | | VOL. PER ACRE |
| | Red Oak | White / Chinkapin Oak | Bur Oak | Ash | Basswood | Miscell. | Swamp White / Pin Oak | Walnut | Hickory | Maple | |
| 12 | 6 | | 3 | 6 | 19 | 8 | | 8 | 12 | 11 | 72 |
| 14 | 10 | | 36 | 41 | 88 | 14 | 39 | 45 | 57 | | 330 |
| 16 | 32 | 43 | 15 | 69 | 49 | 92 | 101 | 86 | 103 | | 590 |
| 18 | 38 | 60 | | 184 | 73 | 38 | 45 | 30 | 45 | 134 | 645 |
| 20 | | | 108 | 127 | 85 | 69 | | 39 | | | 429 |
| 22 | | | 90 | | | | | 50 | | | 139 |
| 24 | 114 | | 114 | | | | | | | | 227 |
| 26 | 435 | 140 | | | | | 140 | 59 | | | 773 |
| 28 | | | 400 | 71 | | | | | | | 472 |
| 30 | 369 | | | | 171 | | | | | | 540 |
| 32 | | | | | | 169 | | | | | 169 |
| 34 | 338 | 270 | | | | | | | | | 608 |
| 36 | | | | | | | | | | | |
| 38 | 353 | 310 | | | | | | | | | 662 |
| 40 | | | | | | | | | | | |
| VOL./ACRE | 1694 | 821 | 766 | 497 | 485 | 390 | 324 | 316 | 216 | 145 | 5654 |



**PURDUE UNIVERSITY
DEPARTMENT OF FORESTRY & NATURAL RESOURCES**

SUMMARY AND ANALYSIS OF CFI

OWNER: Purdue University
COMPARTMENT: Davis PAC- Comp. 4
ACRES: 7.00

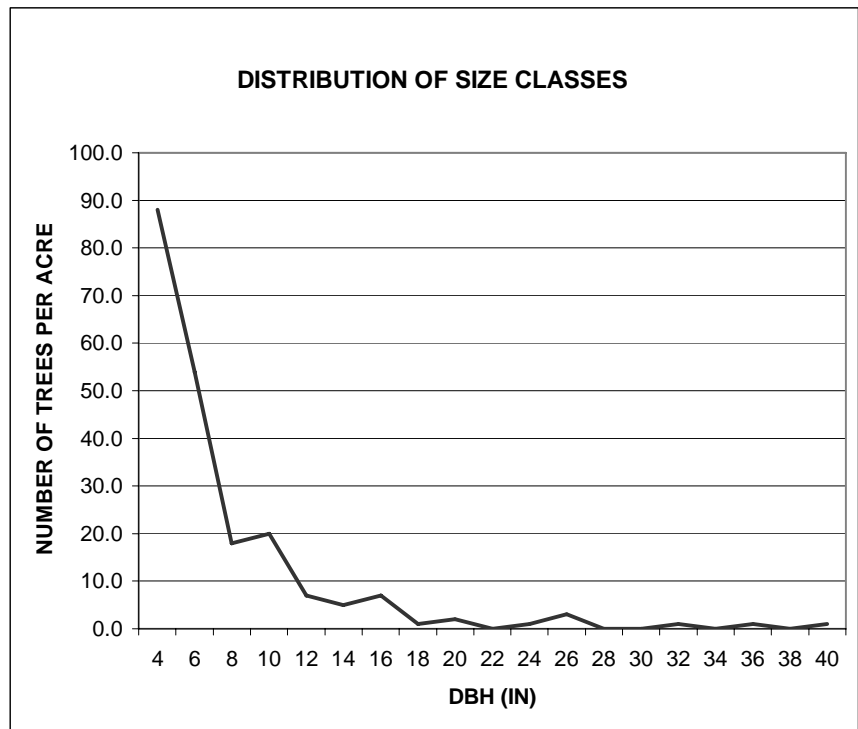
DATE: February 1986
FORESTER: G. Parker

This inventory was accomplished by measuring all trees greater than 3" on 1/5 acre plots.

Sawtimber trees (9"+ dbh) measured on 5 plots. Pole trees (3" - 8.9" dbh) measured on 5 plots.

All figures for volume are in board-feet (bd-ft) Doyle, all figures for basal area (BA) are in square feet, and all figures for diameter at breast height (dbh) are in inches. Volumes were adjusted for soundness and reconciled to other inventories.

| SUMMARY BY SIZE CLASS | | | |
|------------------------------|---------------|----------------|-------------------|
| DBH | VOL. PER ACRE | TREES PER ACRE | BASAL AREA / ACRE |
| 4 | | 88.0 | 7.7 |
| 6 | | 54.0 | 10.6 |
| 8 | | 18.0 | 6.3 |
| 10 | | 20.0 | 10.9 |
| 12 | 30 | 7.0 | 5.5 |
| 14 | 158 | 5.0 | 5.3 |
| 16 | 674 | 7.0 | 9.8 |
| 18 | 150 | 1.0 | 1.8 |
| 20 | 349 | 2.0 | 4.4 |
| 22 | | | |
| 24 | 86 | 1.0 | 3.1 |
| 26 | 1035 | 3.0 | 11.1 |
| 28 | | | |
| 30 | | | |
| 32 | | 1.0 | 5.6 |
| 34 | | | |
| 36 | 735 | 1.0 | 7.1 |
| 38 | | | |
| 40 | | 1.0 | 8.7 |
| TOTAL | 3217 | 209.0 | 97.8 |



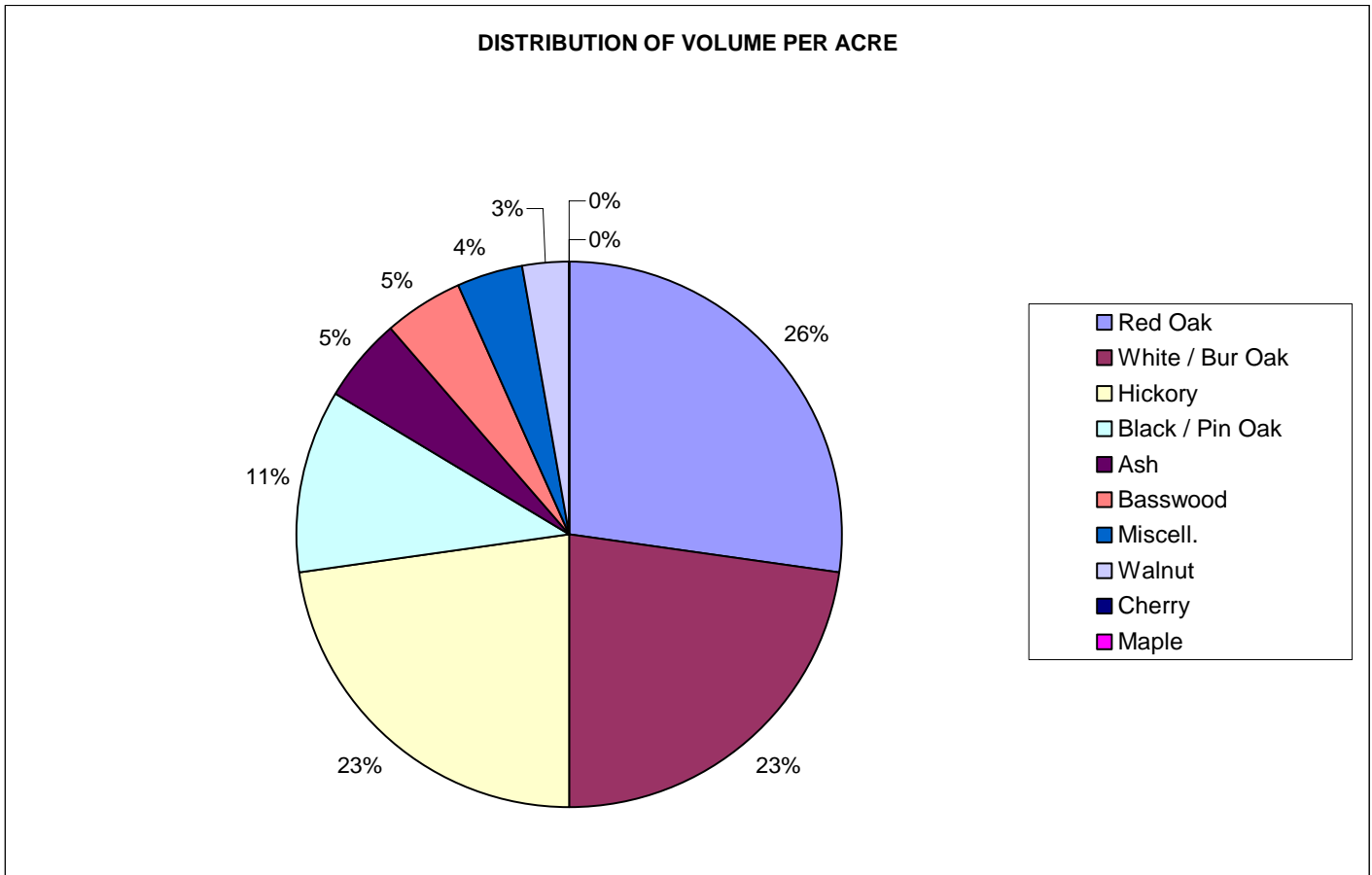
| SUMMARY BY SPECIES | | | | | | | | |
|---------------------------|---------------|-----------------------|----------------|------------------------|------------------|---------------------|------------|--------------------|
| SPECIES | VOL. PER ACRE | PCT. OF PER ACRE VOL. | TREES PER ACRE | PCT. OF PER ACRE TREES | BASAL AREA/ ACRE | PCT. OF PER ACRE BA | AVG. DBH | TOTAL STAND VOLUME |
| Red Oak | 877 | 27.3% | 17.0 | 8.1% | 18.8 | 19.2% | 14.2 | 6,139 |
| White / Bur Oak | 735 | 22.8% | 8.0 | 3.8% | 16.6 | 17.0% | 19.5 | 5,145 |
| Hickory | 727 | 22.6% | 35.0 | 16.7% | 16.1 | 16.5% | 9.2 | 5,089 |
| Black / Pin Oak | 348 | 10.8% | 5.0 | 2.4% | 5.5 | 5.6% | 14.1 | 2,436 |
| Ash | 167 | 5.2% | 29.0 | 13.9% | 8.4 | 8.6% | 7.3 | 1,169 |
| Basswood | 150 | 4.7% | 34.0 | 16.3% | 12.6 | 12.9% | 8.3 | 1,050 |
| Miscell. | 127 | 3.9% | 71.0 | 34.0% | 15.8 | 16.1% | 6.4 | 889 |
| Walnut | 86 | 2.7% | 1.0 | 0.5% | 1.4 | 1.4% | 16.0 | 602 |
| Cherry | | | 3.0 | 1.4% | 0.7 | 0.8% | 6.7 | - |
| Maple | | | 6.0 | 2.9% | 1.8 | 1.9% | 7.4 | - |
| PER ACRE TOTALS | 3217 | 100.0% | 209.0 | 100.0% | 97.8 | 100.0% | 9.3 | 22,519 |

OWNER: Purdue University
 TRACT: Davis PAC- Comp. 4
 ACRES: 7.00

DATE:
 FORESTER:

February 1986
 G. Parker

| SUMMARY OF VOLUME PER ACRE BY SPECIES AND SIZE CLASS | | | | | | | | | | | |
|--|-------------------------|-----------------|------------|-----------------|------------|------------|------------|-----------|--------|-------|---------------|
| DBH | *** SPECIES LISTING *** | | | | | | | | | | VOL. PER ACRE |
| | Red Oak | White / Bur Oak | Hickory | Black / Pin Oak | Ash | Basswood | Miscell. | Walnut | Cherry | Maple | |
| 12 | 10 | | | | | 20 | | | | | 30 |
| 14 | | | 41 | | 57 | 19 | 41 | | | | 158 |
| 16 | | | 368 | 110 | 110 | | | 86 | | | 674 |
| 18 | 150 | | | | | | | | | | 150 |
| 20 | | | | 238 | | 111 | | | | | 349 |
| 22 | | | | | | | | | | | |
| 24 | | | | | | | 86 | | | | 86 |
| 26 | 717 | | 318 | | | | | | | | 1035 |
| 28 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 32 | | | | | | | | | | | |
| 34 | | | | | | | | | | | |
| 36 | | 735 | | | | | | | | | 735 |
| 38 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| VOL./ACRE | 877 | 735 | 727 | 348 | 167 | 150 | 127 | 86 | | | 3217 |



**PURDUE UNIVERSITY
DEPARTMENT OF FORESTRY & NATURAL RESOURCES**

SUMMARY AND ANALYSIS OF CFI

OWNER: Purdue University
COMPARTMENT: Davis PAC- Comp. 2
ACRES: 20.00

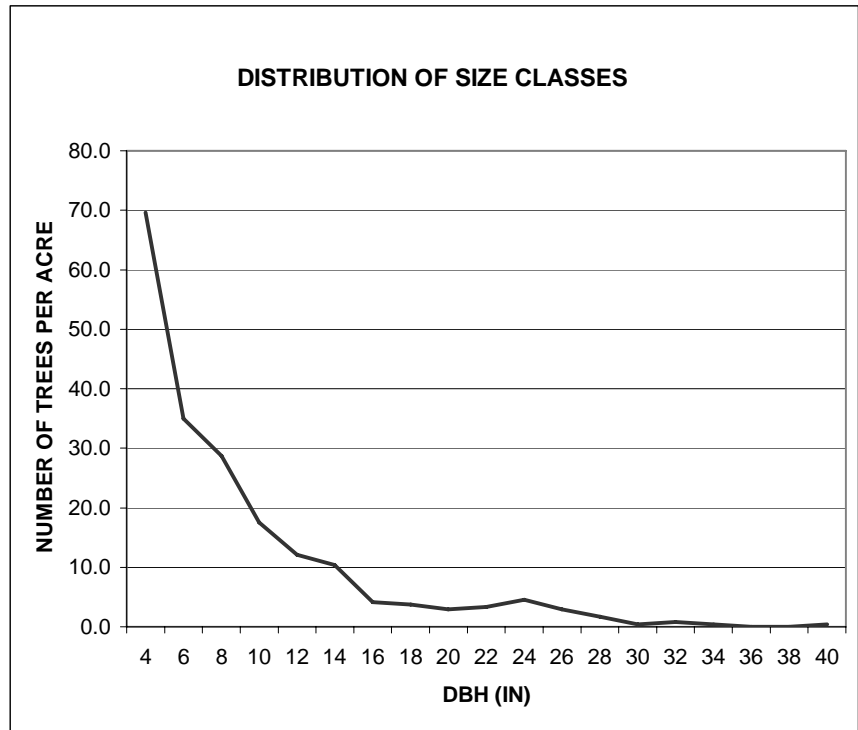
DATE: July 2004
FORESTER: Carlson

This inventory was accomplished by measuring all trees greater than 3" on 1/5 acre plots.

Sawtimber trees (9"+ dbh) measured on 12 plots. Pole trees (3" - 8.9" dbh) measured on 12 plots.

All figures for volume are in board-feet (bd-ft) Doyle, all figures for basal area (BA) are in square feet, and all figures for diameter at breast height (dbh) are in inches. Volumes have been adjusted for defect.

| SUMMARY BY SIZE CLASS | | | |
|------------------------------|---------------|----------------|-------------------|
| DBH | VOL. PER ACRE | TREES PER ACRE | BASAL AREA / ACRE |
| 4 | | 69.6 | 6.1 |
| 6 | | 35.0 | 6.9 |
| 8 | | 28.8 | 10.0 |
| 10 | | 17.5 | 9.5 |
| 12 | 48 | 12.1 | 9.5 |
| 14 | 371 | 10.4 | 11.1 |
| 16 | 375 | 4.2 | 5.8 |
| 18 | 678 | 3.8 | 6.6 |
| 20 | 660 | 2.9 | 6.4 |
| 22 | 1054 | 3.3 | 8.8 |
| 24 | 2063 | 4.6 | 14.4 |
| 26 | 1396 | 2.9 | 10.8 |
| 28 | 915 | 1.7 | 7.1 |
| 30 | 330 | 0.4 | 2.0 |
| 32 | 563 | 0.8 | 4.7 |
| 34 | 564 | 0.4 | 2.6 |
| 36 | | | |
| 38 | | | |
| 40 | 135 | 0.4 | 3.6 |
| TOTAL | 9150 | 198.8 | 126.0 |



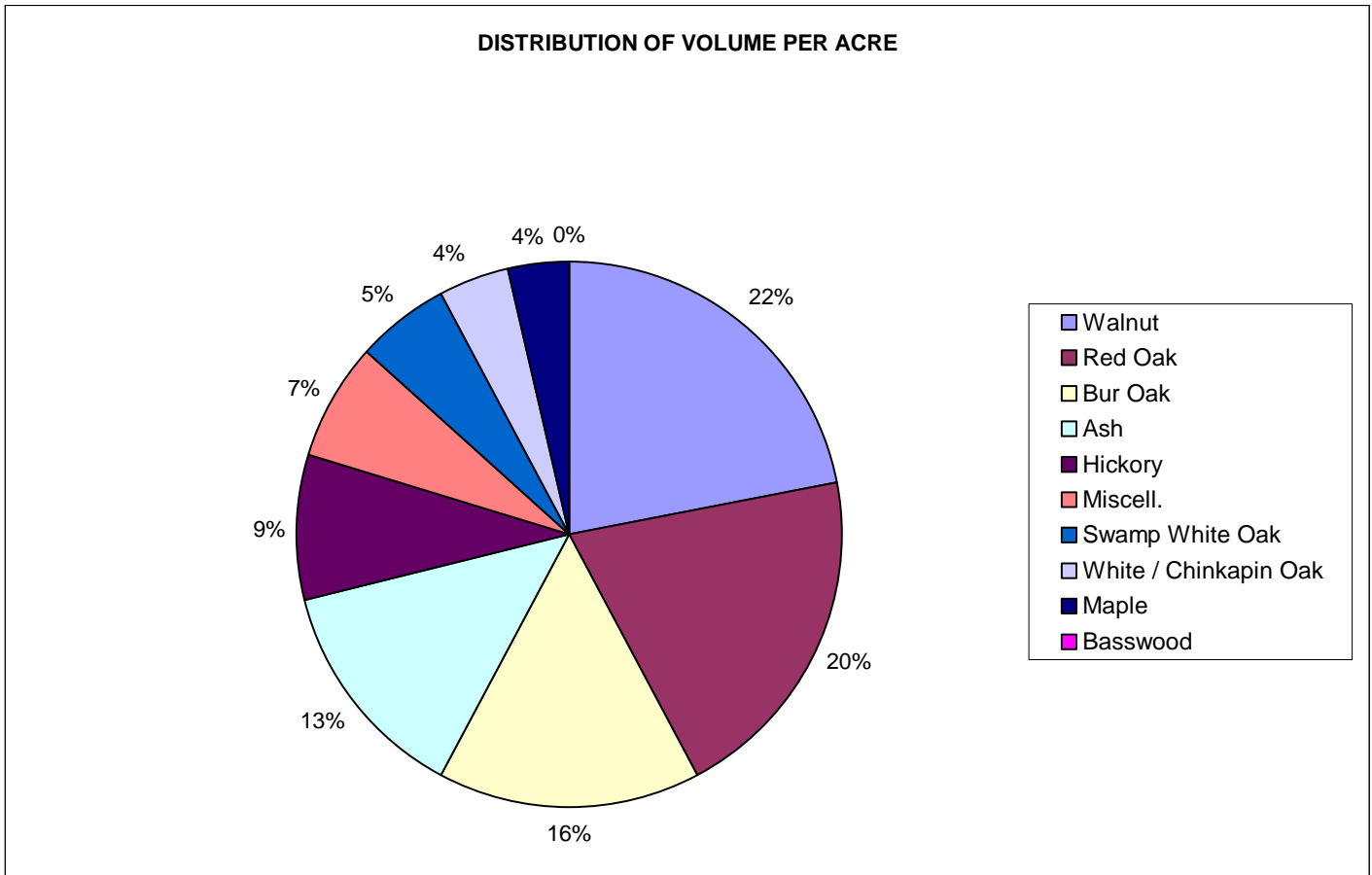
| SUMMARY BY SPECIES | | | | | | | | |
|---------------------------|---------------|-----------------------|----------------|------------------------|------------------|---------------------|-------------|--------------------|
| SPECIES | VOL. PER ACRE | PCT. OF PER ACRE VOL. | TREES PER ACRE | PCT. OF PER ACRE TREES | BASAL AREA/ ACRE | PCT. OF PER ACRE BA | AVG. DBH | TOTAL STAND VOLUME |
| Walnut | 2007 | 21.9% | 7.1 | 3.6% | 17.6 | 14.0% | 21.4 | 40,133 |
| Red Oak | 1860 | 20.3% | 4.2 | 2.1% | 12.0 | 9.6% | 23.0 | 37,208 |
| Bur Oak | 1432 | 15.6% | 7.5 | 3.8% | 13.1 | 10.4% | 17.9 | 28,633 |
| Ash | 1200 | 13.1% | 8.8 | 4.4% | 15.8 | 12.5% | 18.2 | 24,000 |
| Hickory | 800 | 8.7% | 43.8 | 22.0% | 25.7 | 20.4% | 10.4 | 16,000 |
| Miscell. | 642 | 7.0% | 79.2 | 39.8% | 21.5 | 17.1% | 7.1 | 12,833 |
| Swamp White Oak | 496 | 5.4% | 3.3 | 1.7% | 5.1 | 4.1% | 16.8 | 9,917 |
| White / Chinkapin Oak | 382 | 4.2% | 0.8 | 0.4% | 2.6 | 2.1% | 24.1 | 7,642 |
| Maple | 328 | 3.6% | 42.5 | 21.4% | 11.7 | 9.3% | 7.1 | 6,558 |
| Basswood | 4 | 0.0% | 1.7 | 0.8% | 0.8 | 0.6% | 9.3 | 83 |
| PER ACRE TOTALS | 9150 | 100.0% | 198.8 | 100.0% | 126.0 | 100.0% | 10.8 | 183,008 |

OWNER: Purdue University
 TRACT: Davis PAC- Comp. 2
 ACRES: 20.00

DATE:
 FORESTER:

July 2004
 Carlson

| SUMMARY OF VOLUME PER ACRE BY SPECIES AND SIZE CLASS | | | | | | | | | | | | |
|--|-------------------------|---------|---------|------|---------|----------|-----------------|-----------------------|-------|----------|---------------|------|
| DBH | *** SPECIES LISTING *** | | | | | | | | | | VOL. PER ACRE | |
| | Walnut | Red Oak | Bur Oak | Ash | Hickory | Miscell. | Swamp White Oak | White / Chinkapin Oak | Maple | Basswood | | |
| 12 | | | | | 44 | | | | | | 4 | 48 |
| 14 | 17 | | 51 | 16 | 187 | 66 | 34 | | | | | 371 |
| 16 | 84 | | 145 | | 46 | | 46 | | 54 | | | 375 |
| 18 | 63 | 86 | 86 | | 208 | 86 | 86 | | 63 | | | 678 |
| 20 | 83 | 115 | | 296 | | 166 | | | | | | 660 |
| 22 | 317 | 187 | | 106 | | 83 | | 150 | 212 | | | 1054 |
| 24 | 646 | 427 | 990 | | | | | | | | | 2063 |
| 26 | 798 | 200 | | 166 | | | | 233 | | | | 1396 |
| 28 | | | 159 | 199 | 316 | 241 | | | | | | 915 |
| 30 | | | | | | | 330 | | | | | 330 |
| 32 | | 282 | | 282 | | | | | | | | 563 |
| 34 | | 564 | | | | | | | | | | 564 |
| 36 | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | |
| 40 | | | | 135 | | | | | | | | 135 |
| VOL./ACRE | 2007 | 1860 | 1432 | 1200 | 800 | 642 | 496 | 382 | 328 | 4 | | 9150 |



**PURDUE UNIVERSITY
DEPARTMENT OF FORESTRY & NATURAL RESOURCES**

SUMMARY AND ANALYSIS OF CFI

OWNER: Purdue University
COMPARTMENT: Davis PAC- Compartment 3
ACRES: 33.30

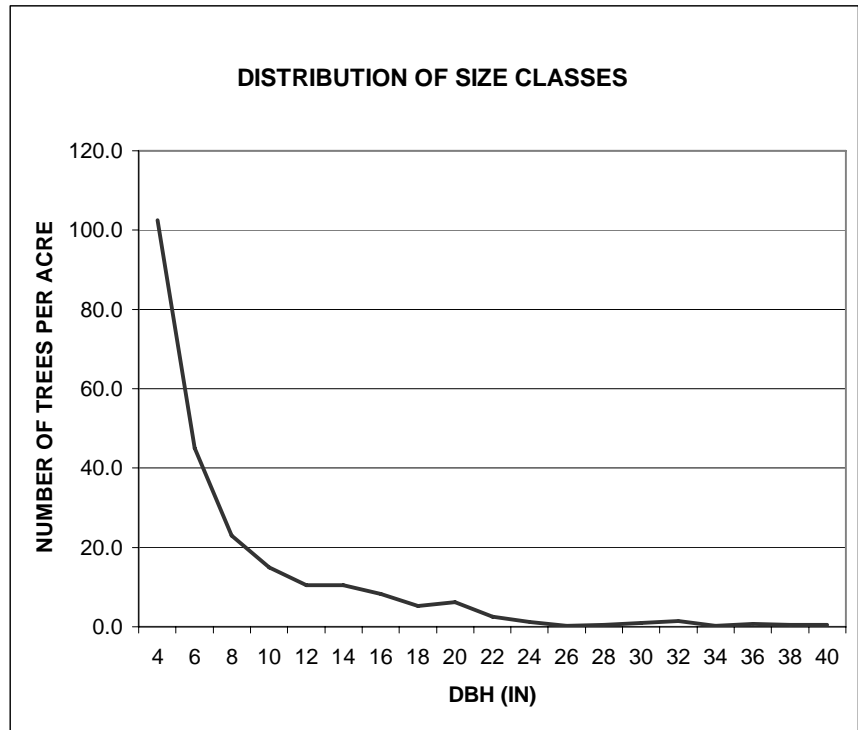
DATE: July 2004
FORESTER: Carlson

This inventory was accomplished by measuring all trees greater than 3" on 1/5 acre plots.

Sawtimber trees (9"+ dbh) measured on 20 plots. Pole trees (3" - 8.9" dbh) measured on 20 plots.

All figures for volume are in board-feet (bd-ft) Doyle, all figures for basal area (BA) are in square feet, and all figures for diameter at breast height (dbh) are in inches. Volumes have been adjusted for defect.

| SUMMARY BY SIZE CLASS | | | |
|------------------------------|---------------|----------------|-------------------|
| DBH | VOL. PER ACRE | TREES PER ACRE | BASAL AREA / ACRE |
| 4 | | 102.5 | 8.9 |
| 6 | | 45.0 | 8.8 |
| 8 | | 23.0 | 8.0 |
| 10 | | 15.0 | 8.2 |
| 12 | 50 | 10.5 | 8.2 |
| 14 | 446 | 10.5 | 11.2 |
| 16 | 788 | 8.3 | 11.5 |
| 18 | 836 | 5.3 | 9.3 |
| 20 | 1192 | 6.3 | 13.6 |
| 22 | 821 | 2.5 | 6.6 |
| 24 | 448 | 1.3 | 3.9 |
| 26 | 140 | 0.3 | 0.9 |
| 28 | 312 | 0.5 | 2.1 |
| 30 | 701 | 1.0 | 4.9 |
| 32 | 1248 | 1.5 | 8.4 |
| 34 | 158 | 0.3 | 1.6 |
| 36 | 772 | 0.8 | 5.3 |
| 38 | 791 | 0.5 | 3.9 |
| 40 | 543 | 0.5 | 4.4 |
| TOTAL | 9244 | 235.3 | 129.9 |



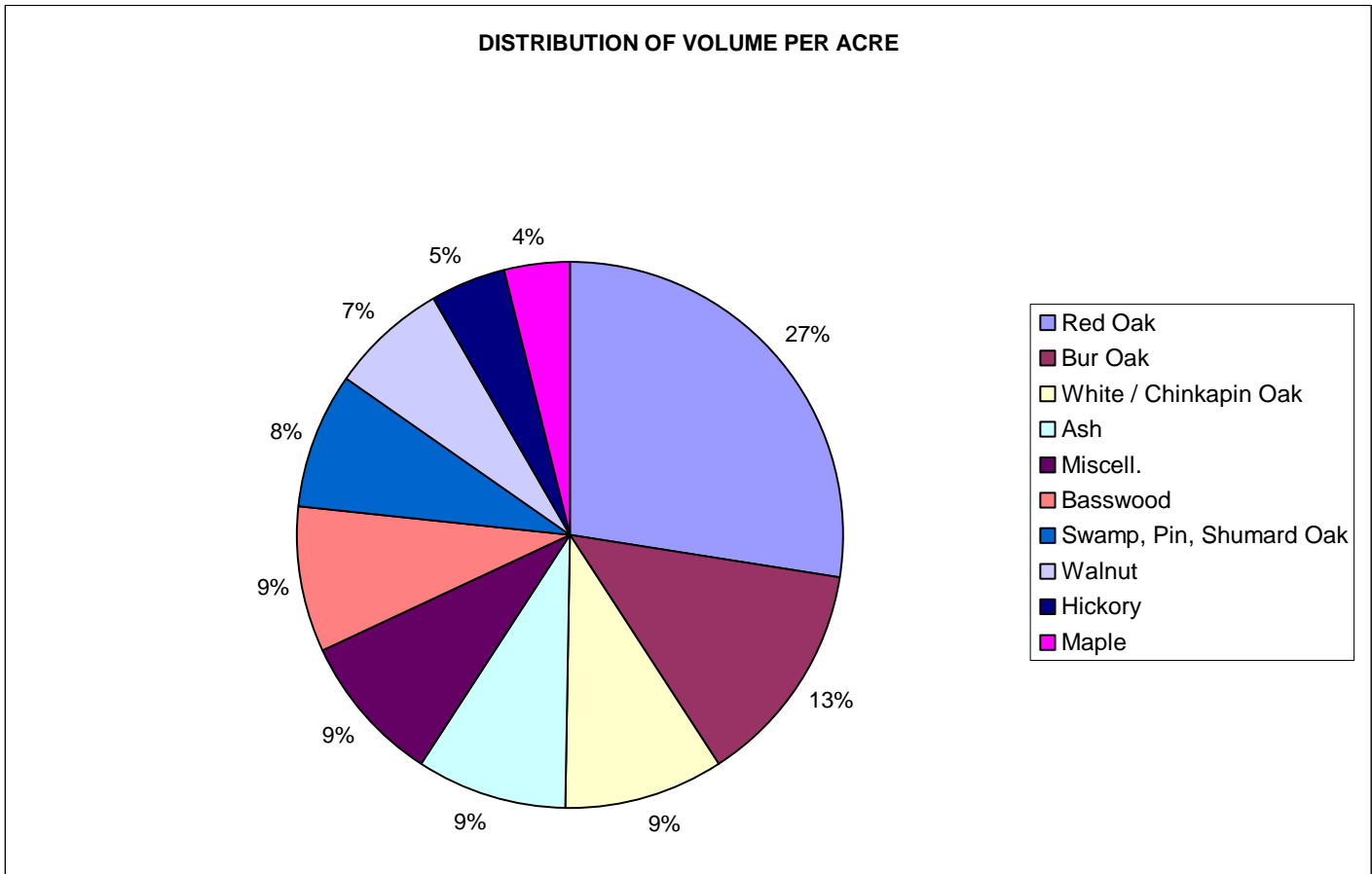
| SUMMARY BY SPECIES | | | | | | | | |
|---------------------------|---------------|-----------------------|----------------|------------------------|------------------|---------------------|-------------|--------------------|
| SPECIES | VOL. PER ACRE | PCT. OF PER ACRE VOL. | TREES PER ACRE | PCT. OF PER ACRE TREES | BASAL AREA/ ACRE | PCT. OF PER ACRE BA | AVG. DBH | TOTAL STAND VOLUME |
| Red Oak | 2535 | 27.4% | 6.3 | 2.7% | 19.2 | 14.8% | 23.7 | 84,407 |
| Bur Oak | 1246 | 13.5% | 3.5 | 1.5% | 7.9 | 6.1% | 20.3 | 41,500 |
| White / Chinkapin Oak | 870 | 9.4% | 2.3 | 1.0% | 5.7 | 4.4% | 21.6 | 28,971 |
| Ash | 825 | 8.9% | 25.5 | 10.8% | 15.4 | 11.9% | 10.5 | 27,464 |
| Miscell. | 818 | 8.8% | 110.8 | 47.1% | 30.6 | 23.5% | 7.1 | 27,239 |
| Basswood | 788 | 8.5% | 34.8 | 14.8% | 16.6 | 12.8% | 9.4 | 26,249 |
| Swamp, Pin, Shumard Oak | 741 | 8.0% | 5.0 | 2.1% | 6.4 | 5.0% | 15.4 | 24,684 |
| Walnut | 640 | 6.9% | 7.3 | 3.1% | 9.5 | 7.3% | 15.5 | 21,320 |
| Hickory | 432 | 4.7% | 10.5 | 4.5% | 8.2 | 6.3% | 12.0 | 14,386 |
| Maple | 348 | 3.8% | 29.5 | 12.5% | 10.3 | 7.9% | 8.0 | 11,597 |
| PER ACRE TOTALS | 9244 | 100.0% | 235.3 | 100.0% | 129.9 | 100.0% | 10.1 | 307,817 |

OWNER: Purdue University
 TRACT: Davis PAC- Compartment 3
 ACRES: 33.30

DATE:
 FORESTER:

July 2004
 Carlson

| SUMMARY OF VOLUME PER ACRE BY SPECIES AND SIZE CLASS | | | | | | | | | | | |
|--|-------------------------|-------------|-----------------------|------------|------------|------------|---------------------|------------|------------|------------|---------------|
| DBH | *** SPECIES LISTING *** | | | | | | | | | | VOL. PER ACRE |
| | Red Oak | Bur Oak | White / Chinkapin Oak | Ash | Miscell. | Basswood | Swamp, Pin, Shumard | Walnut | Hickory | Maple | |
| 12 | 6 | | | 10 | 19 | 13 | | | | 3 | 50 |
| 14 | 28 | | | 107 | 118 | 50 | 10 | 70 | 28 | 36 | 446 |
| 16 | 75 | 60 | | 83 | 135 | 196 | | 124 | 101 | 15 | 788 |
| 18 | 149 | 52 | | 21 | 67 | 187 | 57 | 119 | 184 | | 836 |
| 20 | 60 | 69 | 149 | 441 | 119 | | 139 | 78 | 69 | 69 | 1192 |
| 22 | | | 76 | 164 | 90 | 112 | 190 | 139 | 50 | | 821 |
| 24 | 114 | 114 | | | | | 114 | 26 | | 81 | 448 |
| 26 | 140 | | | | | | | | | | 140 |
| 28 | | 168 | | | | | | | | 145 | 312 |
| 30 | 367 | | 249 | | | | | 85 | | | 701 |
| 32 | 232 | 785 | | | | | 232 | | | | 1248 |
| 34 | 158 | | | | | | | | | | 158 |
| 36 | 271 | | | | 271 | 231 | | | | | 772 |
| 38 | 395 | | 395 | | | | | | | | 791 |
| 40 | 543 | | | | | | | | | | 543 |
| VOL./ACRE | 2535 | 1246 | 870 | 825 | 818 | 788 | 741 | 640 | 432 | 348 | 9244 |



**PURDUE UNIVERSITY
DEPARTMENT OF FORESTRY & NATURAL RESOURCES**

SUMMARY AND ANALYSIS OF CFI

OWNER: Purdue University
COMPARTMENT: Davis PAC- Comp. 4
ACRES: 7.00

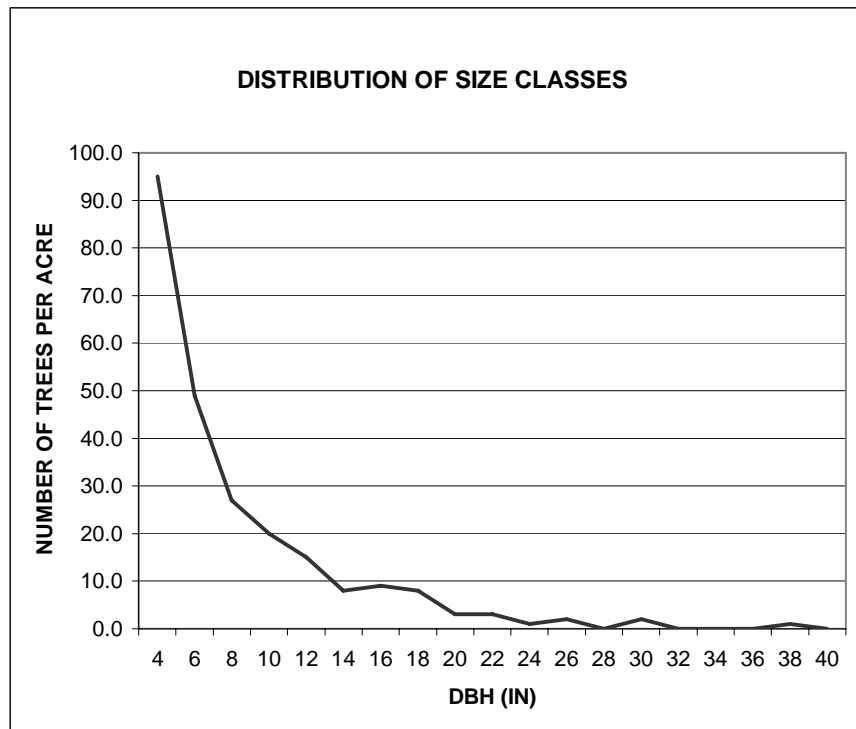
DATE: July 2004
FORESTER: Carlson

This inventory was accomplished by measuring all trees greater than 3" on 1/5 acre plots.

Sawtimber trees (9"+ dbh) measured on 5 plots. Pole trees (3" - 8.9" dbh) measured on 5 plots.

All figures for volume are in board-feet (bd-ft) Doyle, all figures for basal area (BA) are in square feet, and all figures for diameter at breast height (dbh) are in inches. Volumes have been adjusted for defect.

| SUMMARY BY SIZE CLASS | | | |
|------------------------------|---------------|----------------|-------------------|
| DBH | VOL. PER ACRE | TREES PER ACRE | BASAL AREA / ACRE |
| 4 | | 95.0 | 8.3 |
| 6 | | 49.0 | 9.6 |
| 8 | | 27.0 | 9.4 |
| 10 | | 20.0 | 10.9 |
| 12 | 106 | 15.0 | 11.8 |
| 14 | 274 | 8.0 | 8.6 |
| 16 | 776 | 9.0 | 12.6 |
| 18 | 1275 | 8.0 | 14.1 |
| 20 | 792 | 3.0 | 6.5 |
| 22 | 706 | 3.0 | 7.9 |
| 24 | 386 | 1.0 | 3.1 |
| 26 | | 2.0 | 7.4 |
| 28 | | | |
| 30 | 1476 | 2.0 | 9.8 |
| 32 | | | |
| 34 | | | |
| 36 | | | |
| 38 | | 1.0 | 7.9 |
| 40 | | | |
| TOTAL | 5791 | 243.0 | 128.0 |



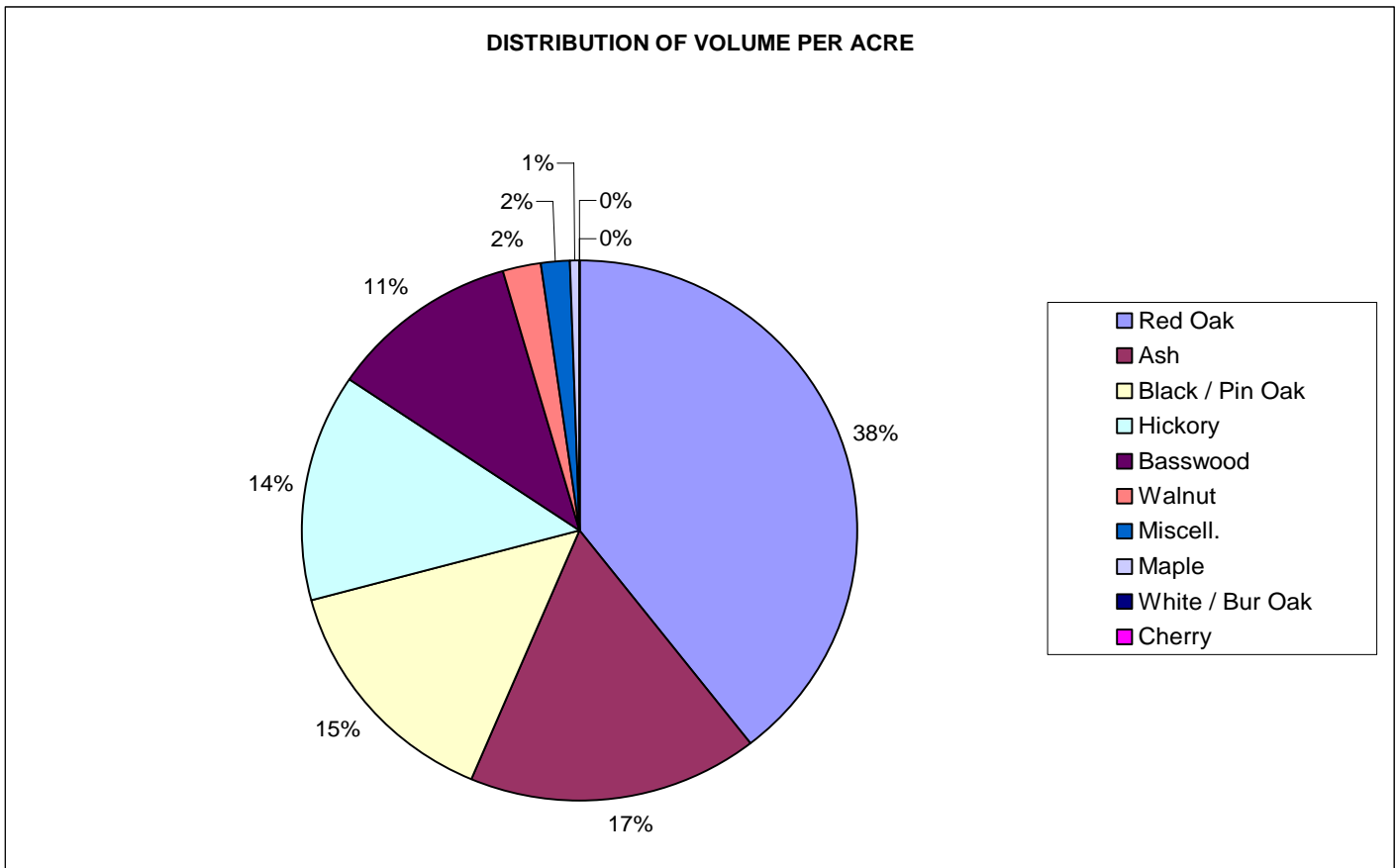
| SUMMARY BY SPECIES | | | | | | | | |
|---------------------------|---------------|-----------------------|----------------|------------------------|------------------|---------------------|------------|--------------------|
| SPECIES | VOL. PER ACRE | PCT. OF PER ACRE VOL. | TREES PER ACRE | PCT. OF PER ACRE TREES | BASAL AREA/ ACRE | PCT. OF PER ACRE BA | AVG. DBH | TOTAL STAND VOLUME |
| Red Oak | 2284 | 39.4% | 22.0 | 9.1% | 29.9 | 23.4% | 15.8 | 15,988 |
| Ash | 974 | 16.8% | 40.0 | 16.5% | 18.0 | 14.1% | 9.1 | 6,818 |
| Black / Pin Oak | 852 | 14.7% | 6.0 | 2.5% | 8.2 | 6.4% | 15.8 | 5,964 |
| Hickory | 788 | 13.6% | 37.0 | 15.2% | 22.8 | 17.8% | 10.6 | 5,516 |
| Basswood | 643 | 11.1% | 32.0 | 13.2% | 22.3 | 17.4% | 11.3 | 4,501 |
| Walnut | 119 | 2.1% | 1.0 | 0.4% | 1.8 | 1.4% | 18.0 | 833 |
| Miscell. | 102 | 1.8% | 73.0 | 30.0% | 17.9 | 14.0% | 6.7 | 714 |
| Maple | 29 | 0.5% | 14.0 | 5.8% | 4.2 | 3.3% | 7.4 | 203 |
| White / Bur Oak | | | 6.0 | 2.5% | 1.4 | 1.1% | 6.5 | - |
| Cherry | | | 12.0 | 4.9% | 1.5 | 1.2% | 4.8 | - |
| PER ACRE TOTALS | 5791 | 100.0% | 243.0 | 100.0% | 128.0 | 100.0% | 9.8 | 40,537 |

OWNER: Purdue University
 TRACT: Davis PAC- Comp. 4
 ACRES: 7.00

DATE:
 FORESTER:

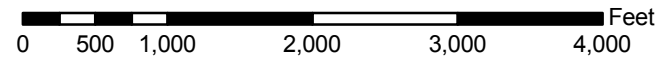
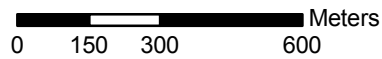
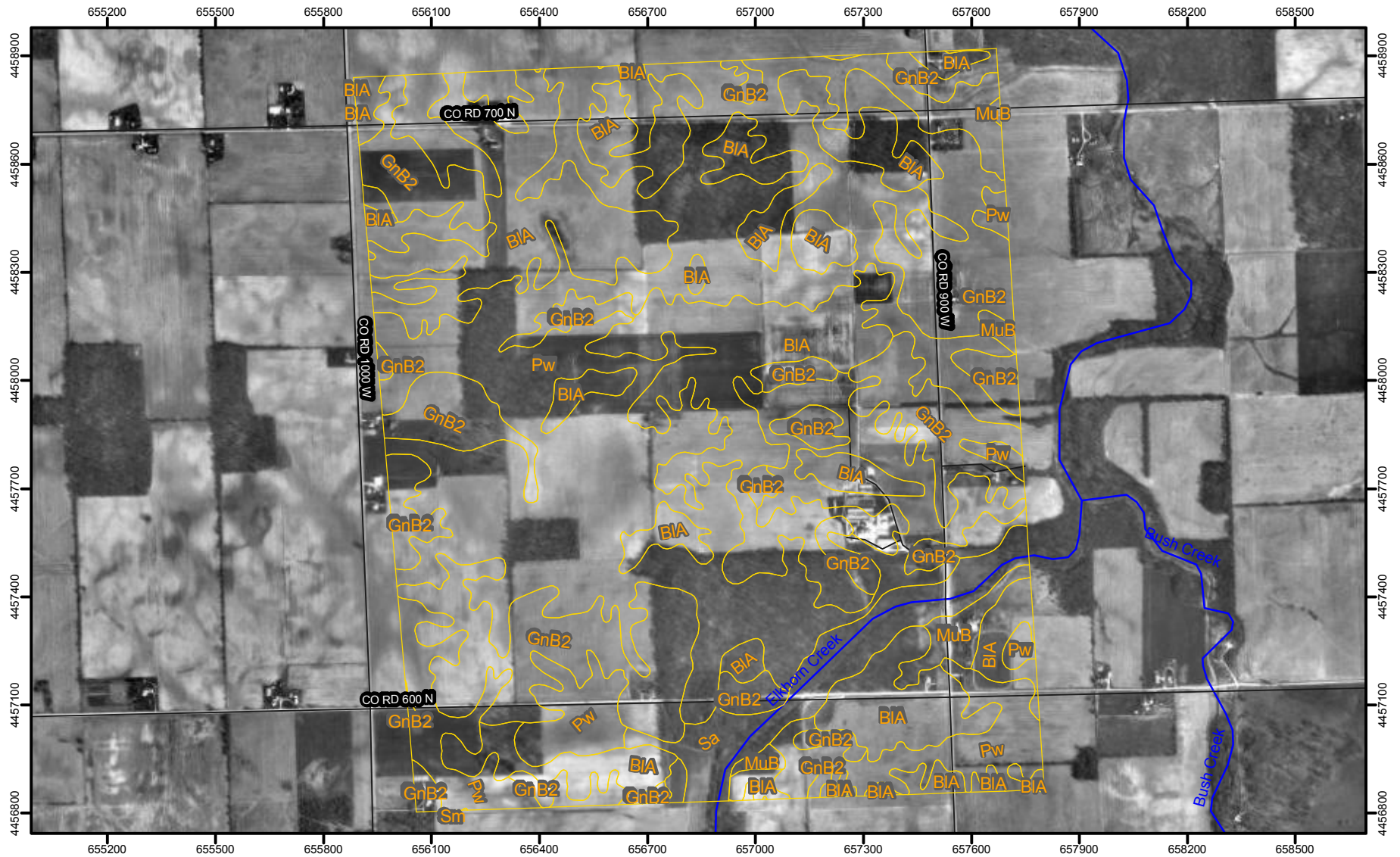
July 2004
 Carlson

| SUMMARY OF VOLUME PER ACRE BY SPECIES AND SIZE CLASS | | | | | | | | | | | |
|--|-------------------------|------------|-----------------|------------|------------|------------|------------|-----------|-----------------|--------|---------------|
| DBH | *** SPECIES LISTING *** | | | | | | | | | | VOL. PER ACRE |
| | Red Oak | Ash | Black / Pin Oak | Hickory | Basswood | Walnut | Miscell. | Maple | White / Bur Oak | Cherry | |
| 12 | | | 23 | 53 | 20 | | | 10 | | | 106 |
| 14 | 113 | 41 | 41 | | 19 | | 41 | 19 | | | 274 |
| 16 | 129 | 269 | 110 | 146 | 61 | | 61 | | | | 776 |
| 18 | 180 | 387 | | 589 | | 119 | | | | | 1275 |
| 20 | | 277 | 277 | | 238 | | | | | | 792 |
| 22 | | | 401 | | 305 | | | | | | 706 |
| 24 | 386 | | | | | | | | | | 386 |
| 26 | | | | | | | | | | | |
| 28 | | | | | | | | | | | |
| 30 | 1476 | | | | | | | | | | 1476 |
| 32 | | | | | | | | | | | |
| 34 | | | | | | | | | | | |
| 36 | | | | | | | | | | | |
| 38 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| VOL./ACRE | 2284 | 974 | 852 | 788 | 643 | 119 | 102 | 29 | | | 5791 |



SOIL SURVEY OF RANDOLPH COUNTY, INDIANA





































Davis PAC



SOIL SURVEY OF RANDOLPH COUNTY, INDIANA

Davis PAC

MAP LEGEND

| | |
|---|-------------------------|
|  | Soil Map Units |
|  | Cities |
|  | Interstate Highways |
|  | Roads |
|  | Rails |
|  | Water |
|  | Hydrography |
|  | Oceans |
|  | Escarpment, bedrock |
|  | Escarpment, non-bedrock |
|  | Gulley |
|  | Levee |
|  | Slope |
|  | Blowout |
|  | Borrow Pit |
|  | Clay Spot |
|  | Depression, closed |
|  | Eroded Spot |
|  | Gravel Pit |
|  | Gravelly Spot |
|  | Gulley |
|  | Lava Flow |
|  | Landfill |
|  | Marsh or Swamp |
|  | Miscellaneous Water |
|  | Rock Outcrop |
|  | Saline Spot |
|  | Sandy Spot |
|  | Slide or Slip |
|  | Sinkhole |
|  | Sodic Spot |
|  | Spoil Area |
|  | Stony Spot |
|  | Very Stony Spot |
|  | Perennial Water |
|  | Wet Spot |

MAP INFORMATION

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>

Coordinate System: UTM Zone 16

Soil Survey Area: Randolph County, Indiana
 Spatial Version of Data: 2
 Soil Map Compilation Scale: 1:15840

Map comprised of aerial images photographed on these dates:
 1998

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend Summary

Randolph County, Indiana

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|-----------------|---|--------------|----------------|
| BlA | Blount silt loam, 0 to 1 percent slopes | 249.0 | 27.7 |
| GnB2 | Glynwood silt loam, 1 to 4 percent slopes, eroded | 197.9 | 22.0 |
| MuB | Morley silt loam, 3 to 6 percent slopes | 11.5 | 1.3 |
| Pw | Pewamo silty clay loam | 405.1 | 45.1 |
| Sa | Saranac silty clay, frequently flooded | 34.7 | 3.9 |
| Sm | Sleeth loam | 0.0 | 0.0 |