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This report of 1974 veneer-log production and receipts ${ }^{1}$ in the North Central Region is divided into two sections--Lake States (Minnesota, Wisconsin, and Michigan) and Central States (Indiana, Illinois, Iowa, and Missouri)--because different species are grown and used as veneer logs in each area. Moreover, less information can be released about the Central States because more detailed data would reveal the operations of individual mills. Export data are reported for Canada but not for other countries.

All but one veneer mill using North Central Region timber in 1974 reported their veneer $-\log$ receipts by species and State of origin. Their cooperation is gratefully acknowledged. Receipts were estimated for the nonresponding mill. Statistics for one large mill are not included in this report to avoid disclosure of its operations (fig. 1); data for the other large mill previously excluded are now included.

Of the 58 active veneer mills in the Region in 1974, 40 were standard ${ }^{2}$ veneer mills and 18 were container ${ }^{3}$ veneer mills. From 1972 to 1974, one standard veneer mill and one container veneer mill closed; three standard veneer mills began operations.

## LAKE STATES

## Production

Lake States loggers harvested 68.7 million board feet of veneer logs in 1974.

[^0]Five species comprised 84 percent of the total volume:

|  | Thousand <br> board <br> feet |
| :--- | :---: |
| Species | 24.3 |
| Aspen | 11.7 |
| Hard maple | 11.1 |
| Red oak | 6.2 |
| Elm | 4.2 |

Most of the harvest ( 64.1 million board feet) was standard veneer logs; the remainder was container veneer logs.

Hard maple regained its position ahead of red oak as a veneer species (fig. 2). Excluding aspen, the major changes in veneer log production between 1972 and 1974 were:

|  | Thousand <br> board <br> feet | Percent |
| :--- | :---: | :---: |
| Species | $+2,451$ | +26 |
| Hard maple | $+1,404$ | +14 |
| Red oak | $+1,061$ | +21 |
| Elm | $-1,015$ | -20 |
| Yellow birch | +976 | +94 |
| Soft maple |  |  |

The long-term downtrend in the yellow birch harvest continued in 1974.

Wisconsin produced 37.3 million board feet of logs. Aspen and red oak were the principal species cut. The elm harvest rose 1.3 million board feet from 1972, probably because Dutch Elm Disease was spreading rapidly through Wisconsin and many high quality logs were being salvaged from infected trees. Walnut and red oak were the primary species shipped outside the Lake States from Wisconsin.

Michigan cut 25.9 million board feet of veneer logs, principally from aspen, hard maple, and yellow birch. The elm harvest dropped below one-half million board feet,


Figure 1.--Location of active veneer mills in the North Central Region, 1974.


1/Receipts not recorded to avoid disclosure of operations at th1s mill.


Figure 2.--Veneer-log production of four major species for selected years, Lake States, 1966-1974.
probably because the quantity of elm remaining in Michigan is small. Of the total cut, 39 percent was shipped to Wisconsin and 12 percent was shipped beyond the Lake States. Important species shipped out-of-State were hard maple, yellow birch, and red oak.

In Minnesota, 93 percent of the 5.4 million board feet of veneer logs cut was procured by out-of-State mills. Cottonwood, aspen, elm, and red oak were the dominant species cut.

## Mi11 Receipts

Lake States veneer mills received 67.5 million board feet of logs in 1974 including imports of 4.1 million board feet. Imports from Canada fell 1 million board feet (33 percent) compared to 1972 while log receipts from other States (primarily Iowa) rose half a million board feet. Excluding aspen,
major increases in demand over 1972 were for hard maple, soft maple, and red oak.

Nineteen Wisconsin veneer mills received 41.6 million board feet of $10 \mathrm{gs}, 5.1$ million board feet more than in 1972. Red oak, hard maple, and elm were the primary species procured. One-fourth of the volume came from Michigan including more than half of the hard maple and yellow birch receipts.

Michigan's mills procured 25.3 million board feet of veneer logs. Imports from Canada were off 44 percent from 1972 and no other wood was purchased outside the Lake States.

Minnesota veneer plants received 0.6 million board feet of 1 ogs, up 17 percent from 1972.

## Plant Residue ${ }^{4}$

More than 99 percent of the coarse residue generated at Lake States veneer mills in 1974 was used. On the other hand, 36 percent of the fine residue and 41 percent of the bark were not used. The primary use ( 69 percent) for coarse residue was in fiber products. Important uses for fine residue were industrial fue1 ( 32 percent) and fiber products (28 percent). More than half (58 percent) the bark was used for industrial fue1. Disposal problems appear to be significant for fine residue and bark. The only problem with coarse residue disposal might be in finding higher value markets.

## CENTRAL STATES

## Production

Central States veneer-log production continued to rebound in 1974 from the low point in 1970 (fig. 3). The harvest was 29.1 million board feet, up 11 percent from 1972. Eighty-five percent ( 24.8 million board feet) was standard veneer logs, the remainder was used for container veneer.
${ }^{4}$ Plant residue at veneer mills is classed as: (1) bark; (2) coarse (wood)-suitable for chipping, such as veneer cores; or (3) fine (wood)--not suitable for chipping, such as veneer clippings.


Figure 3.--Veneer-log production and mill receipts in the Central States, 19561974.

Principal species cut were:

|  | Mizlion <br> board <br> feet |
| :--- | :---: |
| Species | 8.5 |
| Walnut | 5.2 |
| White oak | 4.0 |
| Cottonwood | 2.9 |

Walnut and the oaks were used primarily in furniture and decorative paneling. Cottonwood was used chiefly for containers and pallets.

Important harvest changes between 1972 and 1974 were:

|  | Thousand <br> board <br> feet | Percent |
| :--- | :---: | :---: |
| Species | $+1,861$ | +56 |
| White oak | $+1,217$ | +70 |
| Red oak | $-1,486$ | -15 |
| Walnut (hickory) | $-1,232$ | -51 |
| Pecan (hick |  |  |

Red oak and white oak harvests were the highest recorded in the last 2 decades.

Exports moved slightly higher (3 percent) than in 1972 to 5.5 million board feet; they were mainly to Kentucky ( 46 percent), Wisconsin (34 percent), and Ohio (13 percent).

Indiana loggers cut half of the Central States veneer $\log$ volume. Iowa edged out Illinois for second place in production after being 1.5 million board feet behind in 1972. Only Missouri cut a smaller volume of veneer logs than in 1972.

## Mill Receipts

Twenty-six Central States mills received 39.7 million board feet of veneer logs in 1974, a rise of 4.7 million board feet from 1972. These mills imported 16.2 million board feet of logs from 20 other States and Canada including more than 1 million board feet from each of 6 States-Ohio, Kentucky, Oklahoma, Wisconsin, Michigan, and Pennsylvania. Major imports included black cherry from Pennsylvania, pecan from Oklahoma, and white oak from Ohio.

Indiana's 18 veneer mills procured 76 percent of the total log receipts in 1974 including 85 percent or more of the black cherry, hard maple, pecan, red oak, white oak, and yellow-poplar.

## Plant Residue

Most wood residue (90 percent) was used so the only significant disposal problem may be in upgrading the uses. On the other hand, 30 percent of the bark was disposed of as waste, a significant increase from only 12 percent in 1972. Industrial fuel was the primary use for both wood and bark residue.
Table 1.--Production and imports of veneer Iogs, Lake States, 1974
(In thousand board feet, International 1/4-inch log rule)

TABLE 1 CONTINUED BUTTERNUT
WISCONSIN
WISCONSIN total
TOTAL
COTTONWOOD
MICHIGAN
MINNESOTA
WISCONSIN
EXPORTED
TOTAL
ELM
MICHIGAN
MINNESOTA
WISCONSIN
EXPORTED
total
GUM HICHIGAN
TOTAL HARD MAPLE MICHIGAN
MINNESOTA
WISCONSIN
EXPORTED 3/
TOTAL TOTAL
APER BIRCH
MICHIGAN
WISCONSIN ECAN (MICKORY)
WISCONSIN
EXPORTED 3/

[^1]tOTAL
TABLE 1 CONTINUED
 SOFT MAPLE
MICHIGAN
MINNESOTA WISCONSIN TOTAL. SYCAMORE
MICHIGAN TOTAL
WALNUT
EXPORTEO 3/ TOTAL WHITE OAK
MICHIGAN
WISCONSIN /E aヨ140dx3 TOTAL YELLOW BIRCH
MICHIGAN
WISCONSIN
EXPORTED 3/ TOTAL NISNOJSIM
NV9IHJIW
צV7dOd-MO OTHER HARDWOODS WISCONSIN
EXPORTED 3/ tOTAL
ALL SPECIES
MICHIGAN
79
891
 12724 N N N N


 LOGS 'CUT VERTICAL COLUMNS OF FIGURES UNDER BOX HEADING PRODUCTION RY STATES PRESENT THE AMOUNT OF VENEER
3/ VENEER LOGS SHIPPED TO STATES OUTSIDE THE LAKE STATES AND TO CANADA.

Table 2.--Mills using five species of Lake States veneer logs, by location, 1974
(In numbers)

| Location | : Red oak : Hard maple: Yellow birch: | Elm: Aspen |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Lake States | 15 | 17 | 11 | 17 | 16 |
| Indiana | 5 | 7 | -- | 2 | -- |
| Illinois | 1 | - | -- | 1 | -- |
| Iowa | 2 | 1 | -- | 2 | - |
| Ohio | - | 2 | -- | -- | -- |
| Kentucky | 1 | 1 | -- | 1 | -- |
| Canada | 1 | 1 | 1 | 1 | 1 |
|  | Total | 25 | 29 | 12 | 24 |

Table 3.--Veneer-log production and receipts in the Lake States by species, 1972 and 1974
(In thousand board feet, International $1 / 4$-inch log rule)

| Species | Production |  |  | Receipts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1972 | 1974 | change | 1972 | 1974 | change |
| Ash | 603 | 891 | +288 | 629 | 861 | +232 |
| Aspen | $1 /$ | 1/ | 1/ | $1 /$ | $1 /$ | 1/ |
| Basswood | $28 \overline{7} 3$ | $23 \overline{8} 7$ | -486 | 3100 | 2586 | -514 |
| Beech | 1065 | 740 | -325 | 748 | 540 | -208 |
| Black cherry | 151 | 74 | -77 | 128 | 74 | -54 |
| Butternut | 346 | 234 | -112 | 2 | 11 | +9 |
| Cottonwood | 1268 | 1777 | +509 | 1276 | 1774 | +498 |
| Elm | 5098 | 6159 | +1061 | 5255 | 5677 | +422 |
| Hard maple | 9255 | 11706 | +2451 | 9421 | 11937 | +2516 |
| Paper birch | 1223 | 1277 | +54 | 1457 | 1307 | -150 |
| Pecan (hickory) | 86 | 32 | -54 | 4 | 1 | -3 |
| Red oak | 9703 | 11107 | +1404 | 10089 | 11098 | +1009 |
| Soft maple | 1040 | 2016 | +976 | 1185 | 2313 | +1128 |
| Walnut | 1376 | 971 | -405 | -- | -- | -- |
| White oak | 287 | 561 | +274 | 202 | 78 | -124 |
| Yellow birch | 5187 | 4172 | -1015 | 6349 | 4646 | -1703 |
| Other species | 57 | 337 | +280 | 49 | 327 | +278 |
| Total | 39618 | 44441 | +4823 | 39894 | 43230 | +3336 |

I/ Comparison was not meaninfgul because log production and receipts for one veneer mill were included in 1974 but not in previous years.
Table 4.--Veneer-log production by species group for selected years,
Lake States, 1946-1974

$\frac{2 /}{3}$ Includes soft maple
4/ Includes ash and cottonwood.

Table 5.--Veneer-log production for selected years and type of industry, Lake States, 1946-1974
(In million board feet, International 1/4-inch log.rule)

| Year | Standard | Container | Total |
| :---: | :---: | :---: | :---: |
| 1946 | 72.7 | 37.9 | 110.6 |
| 1948 | 71.7 | 45.1 | 116.8 |
| 1950 | 47.3 | 39.3 | 86.6 |
| 1952 | 46.8 | 31.4 | 78.2 |
| 1954 | 45.3 | 26.7 | 72.0 |
| 1956 | 51.6 | 27.4 | 79.0 |
| 1958 | 40.3 | 12.4 | 52.7 |
| 1960 | 46.5 | 7.5 | 54.0 |
| 1962 | 41.0 | 6.6 | 47.6 |
| 1963 | 43.9 | 6.6 | 50.5 |
| 1965 | 44.6 | 7.1 | 51.7 |
| 1966 | 45.0 | 5.9 | 50.9 |
| 1968 | 40.6 | 4.9 | 45.5 |
| 1970 | 29.4 | 5.0 | 34.4 |
| 1972 | 38.0 | 4.2 | 42.2 |
| 1974 | 64.1 | 4.6 | 68.7 |

Table 6.--Lake States veneer-log production, receipts, exports, and imports for selected years, 1946-1972
(In million board feet, International $1 / 4$-inch log rule)

| : Produced in the Lake:  <br> Year : States and recelved : Exported $\bar{\prime}$ <br> : at Lake States M1lls:  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1946 | 109.7 | 0.9 | 5.9 | 110.6 | 115.6 |
| 1948 | 116.0 | . 8 | 12.0 | 116.8 | 128.0 |
| 1950 | 86.0 | . 6 | 15.7 | 86.6 | 101.7 |
| 1952 | 77.8 | . 4 | 12.1 | 78.2 | 89.9 |
| 1954 | 71.6 | . 4 | 12.1 | 72.0 | 83.7 |
| 1956 | 78.7 | . 3 | 13.4 | 79.0 | 92.1 |
| 1958 | 51.5 | 1.2 | 6.0 | 52.7 | 57.5 |
| 1960 | 51.9 | 2.1 | 12.5 | 54.0 | 64.4 |
| 1963 | 45.0 | 5.5 | 7.7 | 50.5 | 52.7 |
| 1965 | 49.0 | 2.7 | 7.6 | 51.7 | 56.6 |
| 1966 | 45.8 | 5.1 | 9.6 | 50.9 | 55.4 |
| 1968 | 39.7 | 5.8 | 7.9 | 45.5 | 47.6 |
| 1970 | 31.4 | 3.0 | 5.6 | 34.4 | 37.0 |
| 1972 | 37.7 | 4.5 | 4.6 | 42.2 | 42.3 |
| 1974 | 63.4 | 5.3 | 4.1 | 68.7 | 67.5 |

1/ From Lakes States to other States and Canada.
ㅎ/ From other States and Canada into Lakes States.

Table 7.--Veneer-log receipts in the Lake States by species groups for selected years, 1952-1974

| Year | : Ash: | Aspen | Basswood | : Beech | $\begin{aligned} & \text { : Yellow : } \\ & \text { : birch } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Cotton-: } \\ & \text { wood : } \end{aligned}$ | E1m | $\begin{aligned} & \text { : Hard } \\ & \text { : maple } \\ & \hline \end{aligned}$ | Soft <br> maple | $\begin{aligned} & \text { Red } \\ & \text { oak } \end{aligned}$ | $\begin{aligned} & \text { : White } \\ & \text { : oak } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { : Paper } \\ & \text { : birch } \end{aligned}$ | $\begin{aligned} & \text { : Other } \\ & \text { : specles: } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { All } \\ \text { species } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952 | - | 1.4 | 10.9 | 3.2 | 1/27.1 | - | 11.7 | 2/24.9 | -- | 3/5.3 | -- | - | 4/5.4 | 89.9 |
| 1954 | . 8 | . 3 | 10.3 | 3.2 | 1/25.0 | 2.7 | 10.9 | $\underline{\underline{2}} / 22.4$ | -- | 3/6.5 | - | - | 1.6 | 83.7 |
| 1956 | . 7 | . 8 | 10.6 | 5.7 | $\underline{1} / 28.5$ | 3.0 | 10.2 | 21.9 | 4.7 | 3/5.0 | -- | - | 1.0 | 92.1 |
| 1958 | . 6 | 1.7 | 7.3 | 1.8 | I/17.2 | 2.2 | 9.2 | 9.6 | 2.5 | 3/5.0 | - | - | . 4 | 57.5 |
| 1960 | 1.1 | 2.1 | 6.8 | . 9 | I/18.9 | 3.3 | 6.2 | 12.2 | 3.6 | 3/8.4 | - | -- | . 9 | 64.4 |
| 1963 | . 7 | 1.6 | 6.7 | . 3 | $\underline{1} / 14.3$ | . 7 | 4.9 | 11.1 | 2.6 | 3/9.3 | - | - | . 5 | 52.7 |
| 1965 | . 7 | . 6 | 6.3 | . 5 | $\underline{1} / 14.5$ | 2.1 | 6.3 | 13.2 | 1.9 | $\underline{3} / 9.3$ | -- | - | 1.2 | 56.6 |
| 1966 | 1.1 | . 7 | 4.8 | . 5 | I/14.7 | 2.3 | 5.8 | 12.8 | 1.8 | 9.7 | . 2 | - | 1.0 | 55.4 |
| 1968 | 1.0 | . 6 | 3.9 | . 5 | 10.2 | 2.1 | 5.2 | 9.0 | 1.3 | 8.3 | . 2 | 4.0 | 1.3 | 47.6 |
| 1970 | . 3 | 1.3 | 3.6 | . 3 | 6.1 | 1.4 | 3.8 | 9.0 | . 9 | 7.7 | . 2 | 1.9 | . 5 | 37.0 |
| 1972 | . 6 | 2.4 | 3.1 | . 7 | 6.3 | 1.3 | 5.3 | 9.4 | 1.2 | 10.1 | . 2 | 1.5 | . 2 | 42.3 |
| 1974 | . 9 | 24.3 | 2.6 | . 5 | 4.6 | 1.8 | 5.7 | 11.9 | 2.3 | 11.1 | . 1 | 1.3 | . 4 | 67.5 |

[^2]Table 8.--Production and disposition of hardwood veneer plant residue by type of residue and use, Lake States, 1974 (In thousand cubic feet)

| State and type of use | Wood residue |  |  | Bark. |
| :---: | :---: | :---: | :---: | :---: |
|  | Total | Coarse 1 | Fine 2/ |  |
| Michigan |  |  |  |  |
| Fiber products | 625.6 | 625.6 | -- | -- |
| Industrial fuel | 166.6 | 23.2 | 143.4 | 144.1 |
| Domestic fuel | 16.0 | 16.0 | -- | -- |
| Miscellaneous 3/ | 38.9 | 38.9 | -- | 16.8 |
| Not used 4/ | 1001.6 | 5.4 | 996.2 | 624.0 |
| Total | 1848.7 | 709.1 | 1139.6 | 784.9 |
| Minnesota |  |  |  |  |
| Industrial fuel | 5.1 | 2.4 | 2.7 | 3.4 |
| Domestic fuel | 10.3 | 9.8 | . 5 | 8.0 |
| Miscellaneous 3/ | 8.0 | 3.6 | 4.4 | - |
| Not used 4/ | 17.7 | -- | 17.7 | 6.1 |
| Total | 41.1 | 15.8 | 25.3 | 17.5 |
| Wisconsin |  |  |  |  |
| Fiber products | 1531.3 | 685.2 | 846.1 | -- |
| Industrial fuel | 1017.7 | 190.3 | 827.4 | 1060.3 |
| Domestic fuel | 23.5 | 23.5 | -- | -- |
| Miscellaneous 3/ | 385.5 | 256.1 | 129.4 | 4.5 |
| Not used 4/ | 74.8 | 8.4 | 66.4 | 223.1 |
| Total | 3032.8 | 1163.5 | 1869.3 | 1287.9 |
| All Lake States |  |  |  |  |
| Fiber products | 2156.9 | 1310.8 | 846.1 | -- |
| Industrial fuel | 1189.4 | 215.9 | 973.5 | 1207.8 |
| Domestic fuel | 49.8 | 49.3 | . 5 | 8.0 |
| Miscellaneous 3/ | 432.4 | 298.6 | J33.8 | 21.3 |
| Not used 4/ | 1094.1 | 13.8 | 1080.3 | 853.2 |
| Total | 4922.6 | 1888.4 | 3034.2 | 2090.3 |

[^3]Table 9.--Production and imports of veneer logs, Central States, 1974
(In thousand board feet, International 1/4-inch log rule)

table 9 continued

| GUM |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INDIANA | 43 | 302 | 0 | 0 | 345 | 0 | 71 | 71 | 416 |
| ILL., IOWA, MO. | 651 | 0 | 0 | 0 | 651 | 0 | 3 | 3 | 654 |
| EXPORTED 3/ | 4 | 0 | 0 | 4 | 8 | 0 | 0 | 0 | 0 |
| TOTAL | 698 | 302 | 0 | 4 | 1004 | 0 | 74 | 74 | 1070 |
| HARD MAPLE |  |  |  |  |  |  |  |  |  |
| INDIANA | 1 | 603 | 0 | 0 | 604 | 347 | 4/284 | 631 | 1235 |
| ILL., IOWA,MO. | 0 | 0 | 46 | 0 | 46 | 11 | 0 | 11 | 57 |
| EXPORTED 3/ | 0 | 220 | 248 | 0 | 468 | 0 | 0 | 0 | 0 |
| TOTAL | 1 | 823 | 294 | 0 | 1118 | 358 | 284 | 642 | 1292 |
| PAPER BIRCH INDIANA |  |  |  |  |  |  |  |  |  |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 27 | 27 |
| PECAN (HICKORY) 5050 |  |  |  |  |  |  |  |  |  |
| INDIANA | 63 | 414 | 0 | 118 | 595 | 30 | 2549 | 2579 | 3174 |
| ILL., IOWA,MO. | 19 | 0 | 345 | 74 | 438 | 2 | 4 | 6 | 444 |
| EXPORTED 3/ | 0 | 102 | 1 | 30 | 133 | 0 | 0 | 0 | 0 |
| TOTAL | 82 | 516 | 346 | 222 | 1166 | 32 | 2553 | 2585 | 3618 |
| RED OAK |  |  |  |  |  |  |  |  |  |
| INDIANA | 22 | 1167 | 0 | 0 | 1189 | 624 | 1430 | 2054 | 3243 |
| ILL., IOWA, MO. | 20 | 0 | 505 | 1 | 526 | 54 | 5 | 59 | 585 |
| EXPORTED 3/ | 51 | 217 | 948 | 13 | 1229 | 0 | 0 | 0 | 0 |
| TOTAL | 93 | 1384 | 1453 | 14 | 2944 | 678 | 1435 | 2113 | 3828 |
| SOFT MAPLE |  |  |  |  |  |  |  |  |  |
| INDIANA | 25 | 219 | 0 | 0 | 244 | 0 | 17 | 17 | 261 |
| ILL., IOWA,MO. | 90 | 0 | 0 | 0 | 90 | 0 | 319 | 319 | 409 |
| EXPORTED 3/ | 0 | 0 | 297 | 1 | 298 | 0 | 0 | 0 | 0 |
| TOTAL | 115 | 219 | 297 | 1 | 632 | 0 | 336 | 336 | 670 |
| SYCAMORE |  |  |  |  |  |  |  |  |  |
| INDIANA | 20 | 675 | 0 | 0 | 695 | 0 | 57 | 57 | 752 |
| ILL., IOWA,MO. | 150 | 0 | 0 | 33 | 183 | 0 | 91 | 91 | 274 |
| EXPORTED 3/ | 0 | 0 | 0 | 19 | 19 | 0 | 0 | 0 | 0 |
| TOTAL |  |  |  |  |  |  |  |  |  |
| WALNUT |  |  |  |  |  |  |  |  |  |
| INDIANA | 1081 | 2217 | 1010 | 633 | 4941 | 572 | 2092 | 2664 | 7605 |
| ILL. IOWA,MO. | 395 | 13 | 1002 | 379 | 1789 | 280 | 433 | 713 | 2502 |
| EXPORTED 3/ | 126 | 1013 | 0 | 649 | 1788 | 0 | 0 | 0 | 0 |
| TOTAL | 1602 | 3243 | 2012 | 1661 | 8518 | 852 | 2525 | 3377 | 10107 |

table 9 continued

| WHITE OAK ${ }^{\text {a }}$ ( ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INDIANA | 904 | 2885 | 67 | 113 | 3969 | 207 | 63032 | 3239 | 7208 |
| ILL., IOWA,M0. | 89 | 26 | 153 | 107 | 375 | 13 | 83 | 96 | 471 |
| EXPORTED 3/ | 125 | 588 | 59 | 59 | 831 | 0 | 0 | 0 | 0 |
| TOTAL | 1118 | 3499 | 279 | 279 | 5175 | 220 | 3115 | 3335 | 7679 |
| YELLOW BIRCH |  |  |  |  |  |  |  |  |  |
| INDIANA | 1 | 9 | 0 | 0 | 10 | 0 | 21 | 21 | 31 |
| TOTAL | 1 | 9 | 0 | 0 | 10 | 0 | 21 | 21 | 31 |
| YELLOW-POPLAR |  |  |  |  |  |  |  |  |  |
| INDIANA | 15 | 1194 | 0 | 0 | 1209 | 0 | 58 | 58 | 1267 |
| ILL., IOWA,MC. | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| EXPORTED 3/ | 0 | 14 | 0 | 1 | 15 | 0 | 0 | - | 0 |
| TOTAL | 15 | 1208 | 1 | 1 | 1225 | 0 | 58 | 58 | 1268 |
| OTHER HARDWOODS |  |  |  |  |  |  |  |  |  |
| INDIANA | 165 | 127 | 0 | 57 | 349 | 0 | 177 | 177 | 526 |
| ILL., IOWA,MO. | 14 | 0 | 0 | 64 | 78 | 0 | 50 | 50 | 128 |
| EXPORTED 3/ | 0 | 51 | 1 | 0 | 52 | 0 | 0 | 0 | 0 |
| total | 179 | 178 | 1 | 121 | 479 | 0 | 227 | 227 | 654 |
| ALL SPECIES |  |  |  |  |  |  |  |  |  |
| INDIANA | 2721 | 12448 | 1081 | 921 | 17171 | 2281 | 10718 | 12999 | 30170 |
| ILL., IOWA, Mn. | 2593 | 56 | 2496 | 1224 | 6369 | 501 | 2691 | 3192 | 9561 |
| EXPORTED 3/ | 306 | 2286 | 2153 | 779 | 5524 | 0 | 0 | 0 | 0 |
| TOTAL | 5620 | 14790 | 5730 | 2.924 | 29064 | 2782 | 13409 | 16191 | 39731 |
| 1/ VERTICAL COLUMNS OF FIGURES UNDER BOX HEADING PRODUCTION RY STATES PRESENT THE AMOUNT OF VENEER LEACH |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| $3 / \mathrm{VENEER}$ LOGS SHIPPED TO STATES OUTSIDE THE CENTRAL STATES AND TO CANADA. |  |  |  |  |  |  |  |  |  |
| 4/ INCLUDES 111 THOUSAND BOARD FEET FROM CANADA. |  |  |  |  |  |  |  |  |  |
| 5/ FROM CANAD |  |  |  |  |  |  |  |  |  |
| 6/ INCLUDES | OARD | OM CANA |  |  |  |  |  |  |  |

Table 10.--Veneer-log production and receipts in the Central States by species, 1972 and 1974
(In thousand board feet, International 1/4-inch log rule)

| Spectes | Production |  |  | Receipts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1972 | : 1974 | Change | 1972 | :1974 | Change |
| Ash | 392 | 752 | $+360$ | 542 | 944 | + 402 |
| Basswood | 263 | 263 | -- | 36 | 69 | + 33 |
| Black cherry | 86 | 198 | $+112$ | 855 | 809 | - 46 |
| Butternut | 43 | 49 | + 6 | 381 | 274 | - 107 |
| Cottonwood | 3478 | 3956 | $+478$ | 4855 | 5615 | + 760 |
| E1w | 495 | 664 | + 169 | 342 | 714 | + 372 |
| Gum | 490 | 1004 | + 514 | 606 | 1070 | + 464 |
| Hard maple | 1136 | 1118 | - 18 | 2425 | 1292 | -1133 |
| Pecan (hickory) | 2398 | 1166 | -1232 | 5690 | 3618 | -2072 |
| Red oak | 1727 | 2944 | +1217 | 1569 | 3828 | +2259 |
| Soft maple | 445 | 632 | $+187$ | 515 | 670 | + 155 |
| Sycamore | 682 | 897 | $+215$ | 854 | 1026 | + 172 |
| Walnut | 10004 | 8518 | -1486 | 10984 | 10107 | - 877 |
| White oak | 3314 | 5175 | +1861 | 4034 | 7679 | +3645 |
| Yellow-poplar | 1150 | 1225 | + 75 | 1231 | 1268 | + 37 |
| Other species | 109 | 503 | + 394 | 137 | 748 | + 611 |
| Total | 26212 | 29064 | +2852 | 35056 | 39731 | +4675 |

Table 11.--Veneer-Zog production by specres groups for selected years, Central States, 1956-1974
(In million board feet, International 1/4-inch log rule)

| Year | Cottonwood | : Elm | $\begin{aligned} & \text { : Hard } \\ & : \text { maple } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { : Pecan } \\ & \text { : (hickory) } \end{aligned}$ | $\begin{aligned} & : \text { Red } \\ & : \text { oak } \\ & \hline \end{aligned}$ | $\begin{aligned} & : \text { Soft } \\ & \text { : maple } \\ & \hline \end{aligned}$ | Sycamore | :Walnut | $\begin{aligned} & \text { : White } \\ & \text { : oak } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { : Yellow- : } \\ & \text { : poplar : } \end{aligned}$ | : Other : | $\begin{gathered} \text { All } \\ \text { species } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1956 | 8.0 | 0.9 | 0.8 | 0.1 | 1.1 | 1.8 | 0.6 | 10.6 | 3.4 | 1.6 | 4.2 | 33.1 |
| 1958 | 8.9 | . 6 | 1.1 | . 1 | 1.0 | . 5 | . 5 | 10.8 | 2.6 | 1.1 | 5.2 | 32.4 |
| 1960 | 11.2 | 2.0 | 1.2 | . 1 | 1.5 | 1.2 | 2.5 | 13.2 | 1.6 | 1.6 | 3.8 | 39.9 |
| 1963 | 7.4 | . 7 | 1.6 | . 8 | . 9 | 1.0 | 1.8 | 15.5 | 1.4 | 2.3 | 4.6 | 38.0 |
| 1966 | 6.2 | 1/.7 | 1.4 | 1.1 | 2.3 | . 5 | 1.0 | 14.7 | 1.9 | 3.0 | 3.9 | 36.7 |
| 1968 | 4.1 | . 7 | 1.3 | 3.0 | 2.1 | . 4 | 1.2 | 16.1 | 3.6 | 1.3 | 3.2 | 37.0 |
| 1970 | 4.8 | . 6 | . 8 | 1.5 | 1.3 | . 5 | 1.3 | 8.1 | 1.7 | . 8 | 2.1 | 23.5 |
| 1972 | 3.5 | . 5 | 1.1 | 2.4 | 1.7 | . 4 | . 7 | 10.0 | 3.3 | 1.2 | 1.4 | 26.2 |
| 1974 | 4.0 | , 7 | 1.1 | 1.2 | 2.9 | . 6 | . 9 | 8.5 | 5.2 | 1.2 | 2.8 | 29.1 |

1/ Estimated.

Table 12.--Veneer-log receipts by species groups for selected years, Central States, 1956-1974
(In million board feet, International 1/4-1nch log rule)


1/Estimated.

Table 13,--Production and disposition of hardwood veneer plant residue by type of residue and use, Central States, 1974
(In thousand cubic feet)

| State and type of use | Wood residue |  |  | Bark |
| :---: | :---: | :---: | :---: | :---: |
| Illinois, Iowa and Missouri |  |  |  |  |
|  |  |  |  |  |
| Fiber products | 63.2 | 63.2 | -- | -- |
| Industrial fuel | 315.4 | 62.9 | 252.5 | 49.8 |
| Domestic fuel | 5.9 | 5.9 | -- | 1.6 |
| Miscellaneous 3/ | 28.3 | 28.3 | -- | - |
| Not used 4/ | 283.7 | 107.0 | 176.7 | 244.1 |
| Total | 696.5 | 267.3 | 429.2 | 295.5 |
| Indians |  |  |  |  |
| Fiber products | 337.5 | 141.4 | 196.1 | - |
| Industrial fuel | 1446.1 | 395.9 | 1050.2 | 723.3 |
| Domestic fuel | 33.6 | 18.7 | 14.9 | -- |
| Miscellaneous 3/ | 364.7 | 272.9 | 91.8 | 83.0 |
| Not used 4/ | 19.8 | 15.5 | 4.3 | 128.6 |
| Total | 2201.7 | 844.4 | 1357.3 | 934.9 |
| All Central States |  |  |  |  |
| Fiber products | 400.7 | 204.6 | 196.1 | -- |
| Industrial fuel | 1761.5 | 458.8 | 1302.7 | 773.1 |
| Domestic fuel | 39.5 | 24.6 | 14.9 | 1.6 |
| M1scellaneous 3/ | 393.0 | 301.2 | 91.8 | 83.0 |
| Not used 4/ | 303.5 | 122.5 | 181.0 | 372.7 |
| Total | 2898.2 | 1111.7 | 1786.5 | 1230.4 |

1/ Suitable for chipping, such as veneer cores.
$\overline{2} /$ Not suitable for chipping, such as veneer clippings.
3/ Livestock bedding, mulch, small dimension and
specialty ftems.
4/ Including residues burned as waste.

B1yth, James E., and Jerold T. Hahn. 1976. Veneer-log production and receipts, North Central Region, 1974. USDA For. Serv. Resour. Bull. NC-32, 16 p., illus. North Cent. For. Exp. Stn., St. Paul, Minn.

Shows 1974 veneer-log production and receipts by species in the Lake States (Michigan, Minnesota, and Wisconsin) and in the Central States (Illinois, Indiana, Iowa, and Missouri). Comparisons are made with similar data for 1972. Includes tables showing veneer-log production and receipts (for selected years) since 1946 in the Lake States and since 1956 in the Central States. OXFORD: 832.20:792(77). KEY WORDS: imports, exports, wood residue, bark, veneer mills.

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1976. Veneer-log production and receipts, North Central Region, 1974. USDA For. Serv. Resour. Bul1. NC-32, 16 p., illus. North Cent. For. Exp. Stn., St. Paul, Minn.

Shows 1974 veneer-log production and receipts by species in the Lake States (Michigan, Minnesota, and Wisconsin) and in the Central States (Illinois, Indiana, Iowa, and Missouri). Comparisons are made with similar data for 1972. Includes tables showing veneer-log production and receipts (for selected years) since 1946 in the Lake States and since 1956 in the Central States.

OXFORD: 832.20:792(77). KEY WORDS: imports, exports, wood residue, bark, veneer mills.



[^0]:    ${ }^{1}$ Production is the volume of veneer logs out from a specific area; receipts are the volume of veneer logs received by mills in a specific area regardless of geographic source.
    ${ }^{2}$ Conmercial, face, and specialty veneer mills that manufacture veneer used in doorskins, furniture, wall panels, specialty plywood, and similar items.
    ${ }^{3}$ Mills that manufacture veneers used in boxes, crates, packing cases, and other wood veneer containers.

[^1]:    TOTAL
    Co oak ISCONSIN
    EXPORTED 3/

[^2]:    1/ Includes paper birch.
    $\frac{\overline{2}}{3}$ Includes soft maple.
    3/ Includes white oak.
    4/ Includes ash and cottomwood.

[^3]:    1/ Suitable for chipping such as veneer cores.
    $\underline{2} /$ Not suitable for chipping such as veneer clippings.
    3/ Livestock bedding, mulch, small dimension and specialty items.

    4/ Including residues burned as waste.

