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Naval stores--the name remains the same as in colonial days but the products and uses change with the times. From calking sea ms and treating rigging of wooden vessels to an oil additive in modern jet motors, the adaptable naval stores products continue in the parade of progress. The naval stores industry is commonly referred to as "the old industry with the new look."

The statistical history of the industry from 1900 through 1954 is brought together in this publication. Production, consumption, and stocks data since 1947 shown here were compiled and published by the Agricultural Marketing Service. From 1932 through 1946 comparable data were collected by the Bureau of Agricultural and Industrial Chemistry. Prior to that time records consist mainly of trade estimates as published in Gamble's International Naval Stores Yearbook. Imports and exports were compiled by the Bureau of the Census.

Naval stores embrace all products of pine gum, and related products derived from pine wood. Turpentine and rosin have been the major naval stores products since the decline of wooden ships. Other products are pine tar, pine oil, rosin oil, dipentene, and tall oil.

The two major components of the industry are gum and wood. The use of the term gum naval stores probably arises from the fact that the oleoresin exuded from the living tree in the process of being worked is commonly referred to as gum. Wood naval stores are obtained from pine wood--either pulp, or resin-saturated stumps, trunks, and limbs. There are three segments of the wood industry--steam distilled, destructively distilled, and sulphate. These are primarily extraction processes.

## GUM INDUSTRY

Gum naval stores are obtained by systematically chipping or streaking living trees at given intervals and channeling the flow of gum into receptacles attached to the trees. The crude gum (oleoresin) is collected periodically and distilled. The joint products of the distillation are gum turpentine and rosin. The gum naval stores operation is defined as an agricultural pursuit and until the early 1920 's was practically the only source of naval stores.

The Southeast Coastal Area of the United States has long been a major center of world production of naval stores. With the depletion of the virgin stands of longleaf pine in the Carolinas during the last quarter of the nineteenth century, the industry moved south to Georgia and Florida, with the other Gulf Coast States also producing heavily. As the virgin forests in those areas were cut over, production methods were changed, and second-growth pines were worked. The change involved a reduction in the number and width of streaks and the use of attached cups instead of boxes cut into the trunks of the trees. All pine gum was processed in several hundred fire stills until around 1940.

Since 1940, modern central distilling plants with gum-cleaning equipment have revolutionized the gum industry. Fire stills gradually dropped out of the picture, and in 1956 only a few were in operation, mostly on an off-and-on basis. In earlier years, practically all naval stores operators distilled their own gum and sold turpentine and rosin. Later, producers sold their gum to central stills.

Bark chipping and acid treatment of the streaks are recent developments. Fresh streaks sprayed with sulphuric acid continue to produce gum longer than untreated streaks. This has made it possible for a chipper to work nearly twice as many trees and to approximately double his output of gum for the season. About 60 percent of the trees were acid treated in 1954, compared with only 10 percent in 1950.

During the transition from operating fire stills to selling gum to central stills, and from weekly to biweekly chipping and acid treatment, another significant development was taking place in naval stores and other southern pine areas. Paper mills were moving south and buying up vast acreages of pulp wood land, and in 1956 pulp mill holdings were very large. While these mills added a new source of naval stores (discussed later), gum turpentining operations on their holdings were largely discontinued. This accounted for some of the decline in gum output from 1940 to 1954. While it is agreed that the 1954 and 1955 level of gum naval stores production can be stepped up some without working pulp mill holdings, any sustained material increase would have to come from such acreage.

## WOOD INDUSTRY

In the wood naval stores industry, both the steam and destructive distilling segments of the industry use "lightwood" stumps, trunks, and limbs. The sulphate segment of the industry, which manufactures kraft paper, uses pulpwood.

## Steam Distillation

A new source of turpentine and rosin was developed early in the 1900 's. Lumbering operations left high stumps and other wasted pine wood. As the sapwood rotted, only resin-saturated wood remained. While some of this wood was used on farms as fuel and fence posts, and in making pine tar, woods fires were making heavy inroads into the supply. Pine stumps hindered cultivation in fields. The steam distilling method was developed to utilize these wood resources. The stumps and other heartwood are transported to central plants, chipped, shredded, and subjected to solvent extraction with steam distillation of the extract.

On a weight basis, about 79 percent of steam distilled production is rosin, 9 percent turpentine, 8 percent pine oil, and 4 percent dipentene and other monocyclic hydrocarbons. The spent wood remaining after. extraction of the solvents is used for fuel or in making insulating materials.

In 1910, the initial year of operation, wood rosin production totaled 11, 000 drums. During the next 10 years of research in the development of economical processing methods and acceptable products, production was comparatively small. By 1925, wood rosin production was nearly one-fifth as large as gum rosin. In 1935, wood rosin production totaled 460 thousand drums, more than one-third as large as gum output. About that time, processes were developed for refining wood
rosin to pale grades. Refinement to such grades materially expanded the market for wood rosin. The upward trend in wood rosin production has continued, tending to level off since 1950 at about 1.3 million drums. In every year since 1945, the output of wood rosin has exceeded that of gum rosin and in 1954 it was $2 \frac{1}{2}$ times as large.

Unlike the gum industry, which requires a large amount of hand labor, the steam distilling industry is highly mechanized. Stumps are knocked out by heavy bulldozers, loaded on trucks, and hauled to plants or railroad sidings. Large capital investments are required. Attention to specific needs of users and development of new products, uses, and markets have played a significant role in moving an increasing volume of steam distilled products into consuming channels in competition with gum products.

From 1910 through 1955, the accumulated production of steam distilled rosin totaled approximately 25 million drums. On the basis of a yield of 350 pounds of rosin per ton of stumps, about 37 million tons of stumps and heartwood were consumed by 1956.

## Destructive Distillation

The destructively distilled naval stores industry is comparatively small. Resin-saturated pine wood is placed in a retort and heated to the point of carbonization. The major products obtained by this process are charcoal, pine tar, tar oils, and pitch. Inasmuch as the resin content of the wood undergoes partial decomposition, forming tars and pitches, no rosin is produced. A few of the destructive distilling plants recover some turpentine, dipentene, and pine oil.

## Sulphate

Production of paper by the sulphate process results in two byproducts that are classified as naval stores-sulphate turpentine and tall oil. In the pulping process, the pulpwood is debarked, chipped, and cooked in a weak sulphuric acid solution. Turpentine vaporizes and is condensed while the resins from which tall oil is made are skimmed off after the cooking is completed.

For many years the naval stores byproducts of the sulphate industry were used at plants as fuel or were dumped. Refining processes were developed and the sulphate wood industry is now regarded as the major source of naval stores for the future. Production at new mills and more complete recovery at plants already in operation are expected to fill some of the gap left when steam distilled production declines. In 1955, the output of sulphate turpentine exceeded that of either gum or steam distilled turpentine. If the output of resins at all mills in operation in 1955 were fully recovered, the resin acid (rosin equivalent) content of tall oil would be nearly equal to gum rosin output and about onethird that of steam distilled. As the demand for kraft paper and newsprint spirals, the sulphate industry continues to expand.

## PRODUCTION

All naval stores production statistics, except for rosin oil, are now compiled monthly. Annual totals, therefore, are the sums of the respective monthly totals. Publication of monthly production began with the 1948 cropyear. Formerly, production data were compiled quarterly, semi-annually, or annually.

Sulphate turpentine production data in this publication have been converted to a refined equivalent basis. All plants report crude sulphate turpentine production. The reported data are multiplied by a factor of 0.80 to convert to a refined basis. This was about the average recovery in refining at the time sulphate turpentine came into general use.

## STOCKS

Turpentine and rosin stocks at all production plants are reported monthly. Stocks of gum turpentine and rosin and sulphate turpentine at refineries and major southern concentration points are also covered. Concentration points include major ports and all locations holding Commodity Credit Corporation stocks. In addition, stocks of steam and destructively distilled naval stores on consignment to dealers and consumers are reported. Sulphate stocks, as published, are the total of refined stocks as reported plus reported crude stocks multiplied by the 0.80 conversion factor.

Stocks at all locations other than at retail establishments are compiled as of September 30 for the semiannual report and as of March 31 for the annual report. For those dates, gum and wood turpentine and rosin stocks are shown separately for (1) distribution points by regions--eastern, central, and western; (2) production and southern concentration points broken down into two categories.stocks controlled by CCC and all other stocks; and (3) industrial plants. As a supplement to this overall breakdown, stocks of wood, by kinds, and gum are shown separately for production points. In the turpentine supply and distribution tables, only combined totals for all wood turpentine are given.

On September 30, 1954, and March 31, 1955, locations included in the monthly report of stocks accounted for about 81 percent of turpentine at all locations and 94 percent of all rosin stocks. Coverage of a limited number of plants, therefore, accounts for a major portion of all stocks. This fact has made the monthly stocks report valuable to users of naval stores statistics.

Interplant operations and other factors make it difficult to reconcile some of the categories of stocks shown in the semiannual report with the monthly report for the same date.

Stocks of sulphate turpentine at refining plants are shifted to the industrial plant category for the semiannual report. Consigned wood stocks included in the monthly report are credited to the respective dealer or consumer locations.

## TURPENTINE CONSUMPTION

Gum and steam distilled turpentine are used principally for thinning oil base paints and varnish at the time of application. Sulphate turpentine is used mainly for making chemical raw materials, primarily pinene.

Paint and varnish manufacturers have largely shifted from turpentine to mineral spirits. While mineral spirits are also used for on-the-job thinning, most home owners and private painters continue to use turpentine for thinning paints at the time of application. Improvements in merchandising and packaging --mainly in small, convenient, attractive containers--backed by a national advertising campaign have played a major role in maintaining this demand for turpentine. In 1954, the domestic disappearance of turpentine other than reported industrial consumption accounted for about 57 percent of the total.

Important industrial uses of turpentine other than in making chemical raw materials are in pharmaceuticals, such as cough medicines and counterirritants, and in shoe polish and shoe materials. Chemical raw materials, however, accounted for more than 90 percent of all reported industrial uses in 1954. The major chemical use of turpentine is in the production of pinene, which is consumed in making synthetic camphor (a raw material in many medicines, celluloid, and smokeless gunpowder), synthetic resins, and isoprene. While the terpene chemicals are used in many products, insecticides provide one of the major outlets. In 1954, chemical and pharmaceutical consumption of turpentine amounted to more than 40 percent of the domestic disappearance of all turpentine.

## ROSIN CONSUMPTION

The major uses of rosin are for "sizing" or impregnating various types of paper and paperboard; in protective coatings--such as varnishes, enamels, and paints; in chemicals and pharmaceuticals; and in yellow laundry soap. Minor uses include adhesives and plastics, linoleum and floor coverings, oils and greases, paint dryers, rubber compounding materials, miscellaneous railroad and shipyard consumption, printing inks, and shoe materials.

Paper and paper size have accounted for 25 to 35 percent of the domestic disappearance of rosin in practically every year since 1922, when records of use were begun. Beginning in 1948 more rosin has been consumed in paper and paper size than in any other use.

Varnishes, paints, ester gum, and synthetic resins have accounted for 20 to 30 percent of total rosin use in the United States in practically every year of record. The largest quantity of rosin consumed in manufacturing this group of products was 422,000 drums in 1950.

Chemicals have become an important outlet for rosin in a comparatively short time, rising from 10 percent of reported consumption in 1936 to a peak of 29 percent in 1953 and 1954.

In 1950-54, use of rosin in soap averaged less than 5 percent of the total rosin consumed compared with 29 percent in 1922-26. The outlet for rosin in soap has been largely for yellow bar laundry soaps, which have declined in popularity.

## CONSUMPTION SURVEYS

Statistics on consumption by industries are obtained by use of two inquiries, (1) survey of firms using turpentine and rosin as raw materials in making chemically modified or derived naval stores products, primarily for sale and (2) survey of plants using turpentine and rosin in manufacturing specific products.

The major wood naval stores producing companies and a limited number of firms producing gum naval stores use some of their output of turpentine and rosin in producing derived or modified naval stores products. For example, Company A might use its entire output of rosin, and some rosin purchased from other producers, in making paper size, resinates, ester gum, and specialty products for the rubber industry. Company $B$ might use some rosin in making resinates and sell the remainder of its output of rosin as such. These companies report semiannually the quantity of rosin used in making ester gum and synthetic resins, paper size, products for use by the rubber industry, rosin oil, gloss oil, and all
other modified or derived rosin products. Plants with refining facilities also report the quantity of turpentine consumed in making pinene and other chemicals. The number of firms producing naval stores and utilizing a part, or nearly all, of their output in making derived naval stores products is comparatively small.

In addition to the producer - processor reporters, there are approximately 1,000 establishments on the general consumer list, which includes the following industries: Paint and varnish, foundries, insecticides, adhesives, soap, and other groups consuming rosin and turpentine. These companies report the quantity of turpentine and rosin consumed and also give the specific products made. Consumers on this list are requested not to report the consumption of modified or derived rosin products purchased as such and of B-wood resin.

The total consumption of rosin by the paper industry is the quantity of rosin used in making size by companies manufacturing rosin size and rosin purchased as such by paper mills and used in processing their own size. Statistics on the consumption of rosin by the rubber and synthetic industries are compiled in a similar manner.

The overall procedure used in arriving at the chemical and pharmaceutical total should be of assistance in understanding and appraising the data in question as well as the data for some other industry groups. Prior to 1951, all B-wood resin production was placed in this category. Since that time B-wood resin used in making paper size has been placed in the paper category.

For statistical purposes, figures on steam distilled rosin are in terms of drums of $F F$ rosin. Most of this rosin is refined to pale grades before it is either used in the production of derived products at the plant where produced or sold as rosin. In refining the FF wood rosin to pale grades, B-wood resin is produced and accounts for around 15 percent of the $F F$ rosin. Inasmuch as $F F$ wood rosin is used as a portion of the total supply of rosin, it was necessary to place B-wood resin in one of the consumption categories to balance supply and disappearance. Since it is a specialty product used in several industries, it was deemed advisable to place it in the chemical and pharmaceutical category. Stocks and consumption of $B$-wood resin other than that used in paper size by producing firms are not reported.

Most of the rosin consumption placed in the chemical and pharmaceutical industry group is reported on the producer-processor schedule. After reporting on the specific uses of rosin, processors report rosin used in making all other modified or derived rosin products. Rosin used in making similar products reported by firms on the general consumer list is also placed in the chemical and pharmaceutical industry group.

The downward trend in some of the industry categories may reflect a shift from the use of rosin as such to the use of a specialty or modified rosin accounted for in the chemical and pharmaceutical group. The decline in some groups may also be due to the use of purchased ester gum or synthetic resins. This is particularly true of the paint and varnish category. Other than for the industries making ester gum and synthetic resins, rubber, paper, and chemicals and pharmaceuticals, consumption as shown in this publication relates to the amount of rosin used as such or, after processing, in manufacturing or finishing the particular indus'try products.

Table 1.--Turpentine and rosin: U. S. production, annual, 1900-1954

| Year beginning April 1 | Turpentine |  |  |  |  |  | Rosin |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Wood |  |  |  |  |  |  |  | Resin |
|  | Gum | ```Steam dis- tilled``` | ```Destruc- tively distiller``` | Sulphate | Total | gum <br> and <br> wood | Gum | ```Steam dis- tilled``` | Total | content <br> of tall <br> oil $1 /$ |
|  | Thou. barrels | Thou. barrels | Thou. barrels | Thou. barrels | Thou. barrels | Thou. barrels | Thou. 'drums | Thou. drums | Thou. drums | Thou. drums |
|  | 2/ | 21 | $2 /$ | 2/ | $\underline{2}$ | $2 /$ | 3/ | 3/ | 3/ | 3/ |
| 1900. | 620 | --- | - | --- | --- | 620 | 1,652 | - | 1,652 | --- |
| 1901. | 600 | --- | --- | --- | --- | 600 | 1,600 | --- | 1,600 | --- |
| 1902. | 581 | --- | --- | --- | --- | 581 | 1,548 | --- | 1,548 | --- |
| 1903. | 545 | --- | --- | --- | --- | 545 | 1,452 | --- | 1,452 | --- |
| 1904. . . . | 600 | --- | --- | --- | --- | 600 | 1,600 | --- | I, 600 | --- |
| 1905. . | 590 | --- | --- | --- | --- | 590 | 1,571 | --- | 1,571 | --- |
| 1906. | 588 | --- | --- | --- | --- | 588 | 1,566 | --- | 1,566 | --- |
| 1907. | 585 | --- | --- | --- | --- | 585 | 1,824 | --- | 1,824 | --- |
| 1908. | 750 | --- | --- | --- | --- | 750 | 2,000 | - | 2,000 | -- |
| 1909.... | 600 | - | --- | --- | --- | 600 | 1,600 | -- | 1,600 | --- |
| 1910.. | 615 | 2 | --- | --- | 2 | 617 | 1,638 | 11 | 1,649 | --- |
| 1911.. | 660 | 4 | --- | --- | 4 | 664 | 1,758 | 19 | 1,777 | --- |
| 1912. | 715 | 15 | --- | --- | 15 | 730 | 1,905 | 79 | 1,984 | --- |
| 1913. | 675 | 20 | --- | --- | 20 | 695 | 1,799 | 103 | 1,902 | --- |
| 1914. | 560 | 6 | - | - | 6 | 566 | 1,492 | 27 | 1,519 | --- |
| 1915.... | 530 | 7 | --- | --- | 7 | 537 | 1,412 | 31 | 1,443 | --- |
| 1916..... | 610 | 16 | --- | --- | 16 | 626 | 1,626 | 71 | 1,697 | --- |
| 1917. | 474 | 28 | --- | --- | 28 | 502 | 1, 250 | 128 | 1,378 | --- |
| 1918. | 340 | 19 | --- | --- | 19 | 359 | 909 | 88 | 997 | --- |
| 1919.... | 367 | 21 | 5 | - | 26 | 393 | 996 | 92 | 1,088 | --- |
| 1920. | 489 | 16 | 5 | --- | 21 | 510 | 1,287 | 71 | 1,358 | --- |
| 1921. | 486 | 9 | 5 | -- | 14 | 500 | 1,323 | 42 | 1,365 | --- |
| 1922.. | 520 | 33 | 5 | --- | 38 | 558 | 1,409 | 133 | 1,542 | --- |
| 1923.. | 565 | 43 | 8 | --- | 51 | 616 | 1,534 | 161 | 1,695 | --- |
| 1924. | 521 | 57 | 8 | --- | 65 | 586 | 1,404 | 206 | 1,610 | - |
| 1925. | 478 | 59 | 8 | - | 67 | 545 | 1,288 | 228 | 1,516 | --- |
| 1926. . . . | 510 | 70 | 9 | --- | 79 | 589 | 1,388 | 292 | 1,680 | --- |
| 1927.... | 650 | 77 | 10 | --- | 87 | 737 | 1,765 | 328 | 2,093 | - |
| 1928. . . . | 560 | 78 | 9 | 2 | 89 | 649 | 1,522 | 345 | 1,867 | - |
| 1929..... | 625 | 86 | 10 | 3 | 99 | 724 | 1,696 | 374 | 2,070 | --- |

[^0]Table 1.--Turpentine and rosin: U. S. production, annual, 1900-1954--Continued

| Year beginning April 1 | Turpentine |  |  |  |  |  | Rosin |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gum | Wood |  |  |  | Total gum and wood | Gum | Steam distilled | Total | Resin <br> content <br> of tall <br> oil I/ |
|  |  | $\begin{gathered} \text { Stean } \\ \text { dis- } \\ \text { tilled } \end{gathered}$ | ```Destruc- tively distilled``` | Sulphate | Total |  |  |  |  |  |
|  | Thou. barrels $2 /$ | Thou. barrels $2 /$ | Thou. barrels 2/ | Thou. barrels 21 | Thou. barrels $2 /$ | Thou. barrels $2 /$ | Thou. drums $3 /$ | Thou. <br> drums $3 /$ | Thou. drums 3/ | Thou. drums $3 /$ |
| 1930. | 599 | 76 | 6 | 4 | 86 | 685 | 1,621 | 351 | 1,972 |  |
| 1931. | 500 | 52 | 5 | 7 | 64 | 564 | 1,357 | 7256 | 1,613 |  |
| 1932. | 501 | 60 | 4 | 8 | 72 | 573 | 1,363 | 296 | 1,659 |  |
| 1933. | 526 | 81 | 6 | 9 | 96 | 622 | 1,431 | 407 | 1,838 |  |
| 1934. | 510 | 77 | 5 | 10 | 92 | 602 | 1,387 | 7396 | 1,783 | 3 |
| 1935. | 497 | 89 | 5 | 12 | 106 | 603 | 1,361 | 460 | 1,821 | 1 |
| 1936. | 483 | 122 | 7 | 23 | 152 | 635 | 1,287 | 579 | 1, 866 | 6 |
| 1937. | 518 | 136 | 7 | 39 | 182 | 700 | 1,388 | -643 | 2,031 | 120 |
| 1938. | 534 | 129 | 5 | 41 | 175 | 709 | 1,467 | 7610 | 2,077 | $7 \quad 14$ |
| 1939. | 383 | 159 | 7 | 56 | 222 | 605 | 1, 054 | 4760 | 1,814 | 423 |
| 1940.... | 344 | 161 | 7 | 54 | 222 | 566 | 939 | - 778 | 1,717 | 732 |
| 1941.... | 285 | 190 | 9 | 65 | 264 | 549 | 791 | 917 | 1,708 | 846 |
| 1942. | 322 | 148 | 6 | 84 | 238 | 560 | 869 | 787 | 1,656 | $6 \quad 68$ |
| 1943. | 288 | 125 | 4 | 91 | 220 | 508 | 784 | 679 | 1,463 | 3122 |
| 1944.... | 245 | 117 | 5 | 104 | 226 | 471 | 692 | 626 | 1,318 | 8139 |
| 1945. | 244 | 129 | 5 | 110 | 244 | 488 | 694 | 4/758 | 1,452 | 2163 |
| 1946. | 270 | 168 | 5 | 127 | 300 | 570 | . 752 | 968 | 1,720 | $0 \quad 194$ |
| 1947. | 294 | 209 | 4 | 134 | 347 | 641 | 828 | 1,163 | 1,991 | 1204 |
| 1948. | 324 | 207 | 3 | 125 | 335 | 659 | 921 | 1,155 | 2,076 | $6 \quad 215$ |
| 1949.... | 323 | 200 | 3 | 147 | 350 | 673 | 925 | 1,099 | 2,024 | 4 191: |
| 1950. | 272 | 237 | 6 | 194 | 437 | 709 | 798 | 1,339 | 2,137 | 7 316 |
| 1951. | 246 | 230 | 5 | 203 | 438 | 684 | 716 | 1,333 | 2,049 | 9324 |
| 1952. | 217 | 175 | 3 | 170 | 348 | 565 | 638 | 1,083 | 1,721 | $1 \quad 26 \%$ |
| 1953..... | 178 | 193 | 3 | 164 | 360 | 538 | 532 | 1,213 | 1, 745 | 5 274 |
| 1954..... | 176 | 208 | 2 | 232 | 442 | 618 | 528 | 1,342 | 1,870 | 0 347 |

1/ Converted from crude tall oil production, as compiled by the Bureau of the Census to equivalent drums of rosin on the basis of 45 percent resin acids.

2/ Barrels of 50 gallons.
$\overline{3} /$ Drums of 520 pounds net.
I/ Beginning with 1945 total primary production of FF wood rosin.

Figure 1.

## TURPENTINE PRODUCTION



Figure 2.


Table 2.--Turpentine: U. S. supply and distribution, annual 1922-1954 (Thousand barrels of 50 gallons)

| Year beginning April I | Supply |  |  |  | Distribution |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Domestic | disappeara |  |
|  | Stocks <br> April I | Production | $\begin{gathered} \text { Imports } \\ 1 / \end{gathered}$ | Total <br> supply | $\begin{gathered} \text { Exports } \\ 1 / \end{gathered}$ | $\begin{gathered} \text { Stocks } \\ \text { Mar. } 3 \mathrm{I} \end{gathered}$ | Reported industrial consumption | Not accounted for $2 /$ | Total |
| 1922... | 85 | 558 | 2 | 645 | 170 | 72 | 174 | 229 | 403 |
| 1923. . | 72 | 616 | 3 | 691 | 225 | 107 | 134 | 225 | 359 |
| 1924.... | 107 | 586 | 4 | 697 | 250 | 101 | 135 | 211 | 346 |
| 1925. . | 101 | 545 | 6 | 652 | 240 | 81 | 143 | 188 | . 331 |
| 1926. . | 81 | 589 | 6 | 676 | 256 | 83 | 112 | 225 | 337 |
| 1927. | 83 | 737 | 6 | 826 | 330 | 127 | 117 | 252 | 369 |
| 1928. | 127 | 649 | 7 | 783 | 277 | 121 | 106 | 279 | 385 |
| 1929. | 121 | 724 | 9 | 854 | 239 | 127 | 112 | 276 | 388 |
| 1930.... | 127 | 685 | 8 | 320 | 327 | 120 | 101 | 272 | 373 |
| 1931.... | 120 | 564 | 4 | 688 | 254 | 141 | 87 | 206 | 293 |
| 1932. | 141 | 573 | 9 | 723 | 225 | 137 | 62 | 299 | 361 |
| 1933.... | 137 | 622 | 10 | 769 | 300 | 132 | 67 | 270 | 337 |
| 1934.... | 132 | 602 | 11 | 745 | 207 | 191 | 69 | 278 | 347 |
| 1935.... | 191 | 603 | 12 | 806 | 224 | 230 | 88 | 264 | 352 |
| 1936.... | 230 | 635 | 16 | 881 | 270 | 223 | 105 | 283 | 388 |
| 1937.... | 223 | 700 | 15 | 938 | 276 | 219 | 108 | 335 | 443 |
| 1938.... | 219 | 709 | 16 | 944 | 210 | 314 | 93 | 327 | 420 |
| 1939.... | 314 | 605 | 16 | 935 | 238 | 220 | 111 | 366 | 477 |
| 1940.... | 220 | 566 | 17 | 803 | 131 | 210 | 115 | 347 | 462 |
| 1941.... | 210 | 549 | 14 | 773 | 113 | 156 | 146 | 358 | 504 |
| 1942.... | 156 | 560 | 11 | 727 | 43 | 288 | 105 | 291 | 396 |
| 1943.... | 288 | 508 | 18 | 814 | 46 | 296 | 187 | 285 | 472 |
| 1944.... | 296 | 471 | 15 | 782 | 65 | 203 | 190 | 324 | 514 |
| 1945.... | 203 | 488 | 15 | 706 | 92 | 101 | 164 | 349 | 513 |
| 1946.... | 101 | 570 | 16 | 687 | 105 | 98 | 140 | 344 | 484 |
| 1947.... | 98 | 641 | 16 | 755 | 94 | 195 | 141 | 325 | 466 |
| 1948.... | 195 | 659 | 14 | 868 | 117 | 230 | 104 | 417 | 521 |
| 1949.... | 230 | 673 | 14 | 917 | 156 | 206 | 112 | 443 | 555 |
| 1950.... | 206 | 709 | 17 | 932 | 208 | 129 | 153 | 442 | 595 |
| 1951.... | 129 | 684 | 19 | 832 | 111 | 194 | 230 | 297 | 527 |
| 1952.... | 194 | 565 | 20 | 779 | 82 | 229 | 184 | 284 | 468 |
| 1953.... | 229 | 538 | 23 | 790 | 88 | 197 | 206 | 299 | 505 |
| 1954.... | 197 | 618 | 15 | 830 | 116 | 176 | 232 | 306 | 538 |

1/ Compiled by the Bureau of the Census.
2/ Consists mainly of turpentine distributed through retailers who are not covered
by these surveys.

Figure 3.

## TURPENTINE SUPPLY



Figure 4.


Table 3.--Gum turpentine: U. S. supply and distribution, annual, 1932-1954 (Thousand barrels of 50 gallons)

| Year beginning April 1 | Supply |  |  |  | Distribution |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks April 1 | Production | $\begin{gathered} \text { Imports } \\ \text { I/ } \end{gathered}$ | Total supply | Exports 1/ | Stocks <br> Mar. 31 | Domestic disappearance |  |  |
|  |  |  |  |  |  |  | Reported indugtrial - consumption | Not accounted for $2 /$ | Total |
| 1932. | --- | 501 | 9 | --- | 213 | --- | --- | --- | -- |
| 1933. | --- | 526 | 10 | --- | 281 | --- | --- | --- | --. |
| 1934. | --- | 510 | 11 | --- | 190 | --- | --- | --" | --- |
| 1935. | --- | 497 | 12 | --- | 205 | --- | --- | --- | --- |
| 1936. | --- | 483 | 16 | --- | 238 | --- | --- | --- | --- |
| 1937. | -- | 518 | 15 | --- | 233 | 174 | --- | --- | --- |
| 1938. | 174 | 534 | 16 | 724 | 175 | 273 | --- | --- | --- |
| 1939. | 273 | 383 | 16 | 672 | 189 | 168 | 60 | 255 | 315 |
| 1940. | 168 | 344 | 17 | 529 | 103 | 147 | 62 | 217 | 279 |
| 1941. | 147 | 285 | 14 | 446 | 79 | 86 | 87 | 194 | 281 |
| 1942. | 86 | 322 | 11 | 419 | 22 | 213 | 43 | 141 | 184 |
| 1943. | 213 | 288 | 18 | 519 | 27 | 262 | 31 | 199 | 230 |
| 1944. | 262 | 245 | 15 | 522 | 50 | 168 | 44 | 260 | 304 |
| 1945. | 168 | 244 | 15 | 427 | 67 | 58 | 34 | 268 | 302 |
| 1946. | 58 | 270 | 16 | 344 | 64 | 34 | 25 | 221 | 246 |
| 1947. | 34 | 294 | 16 | 344 | 57 | 87 | 16 | 184 | 200 |
| 1948. | 87 | 324 | 14 | 425 | 71 | 127 | 14 | 213 | 227 |
| 1949........ | 127 | 323 | 14 | 464 | 100 | 125 | 12 | 227 | 239 |
| 1950........ | 125 | 272 | 17 | 414 | 138 | 36 | 12 | 228 | 240 |
| 1951. | 36 | 246 | 19 | 301 | 67 | 59 | 13 | 162 | 175 |
| 1952. | 59 | 217 | 20 | 296 | 43 | 80 | 10 | 163 | 173 |
| 1953... | 80 | 178 | 23 | 281 | 35 | 89 | 9 | 148 | 157 |
| 1954.. | 89 | 176 | 15 | 280 | 50 | 84 | 6 | 140 | 146 |

1/ Compiled by the Bureau of the Census.
$\frac{1}{2} /$ Consists mainly of turpentine distributed through retailers who are not covered by these surveys.
Table 4.--Wood turpentine: U. S. supply and distribution, annual, 1932-1954 (Thousand barrels of 50 gallons)

| Year beginning April I | Supply |  |  |  | Distribution |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks <br> April 1 | $\begin{aligned} & \text { Produc- } \\ & \text { tion } \end{aligned}$ | Imports I/ | Total supply | Exports | $\begin{aligned} & \text { Stocks } \\ & \text { Mar. } 31 \end{aligned}$ | Domestic disappearance |  |  |
|  |  |  |  |  |  |  | Reported industrial consumption | $\begin{aligned} & \text { Not } \\ & \text { accounted } \\ & \text { for } 2 / \end{aligned}$ | Total |
| 1932....... | --- | 72 | 0 | --- | 12 | -** | --- | - | --- |
| 1933...... | - | 96 | 0 | - | 19 | --- | --- | --- | --- |
| 1934........ | --- | 92 | 0 | --- | 17 | --- | --- | --- | --- |
| 1935. | --- | 106 | 0 | - | 19 | --- | --- | --- | - |
| 1936. | - | 152 | 0 | - | 32 | -- | --- | --- | --* |
| 1937. | --- | 182 | 0 | -- | 43 | 45 | --- | --- | - |
| 1938. | 45 | 175 | 0 | 220 | 35 | 41 | --- | --- | 144 |
| 1939. | 41 | 222 | 0 | 263 | 49 | 52 | 51 | 111 | 162 |
| 1940. | 52 | 222 | 0 | 274 | 28 | 63 | 53 | 130 | 183 |
| 1941. | 63 | 264 | 0 | 327 | 34 | 70 | 59 | 164 | 223 |
| 1942. | 70 | 238 | 0 | 308 | 21 | 75 | 62 | 150 | 212 |
| 1943. | 75 | 220 | 0 | 295 | 19 | 34 | 156 | 86 | 242 |
| 1944. | 34 | 226 | 0 | 260 | 15 | 35 | 146 | 64 | 210 |
| 1945. | 35 | 244 | 0 | 279 | 25 | 43 | 130 | 81 | 211 |
| 1946. | 43 | 300 | 0 | 343 | 41 | 64 | 115 | 123 | 238 |
| 1947. | 64 | 347 | 0 | 411 | 37 | 108 | 125 | 141 | 266 |
| 1948. | 108 | 335 | 0 | 443 | 46 | 103 | 90 | 204 | 294 |
| 1949........ | 103 | 350 | 0 | 453 | 56 | 81 | 100 | 216 | 316 |
| 1950....... | 81 | 437 | 0 | 518 | 70 | 93 | 141 | 214 | 355 |
| 1951........ | 93 | 438 | 0 | 531 | 44 | 135 | 217 | 135 | 352 |
| 1952...... | 135 | 348 | 0 | 483 | 39 | 149 | 174 | 121 | 295 |
| 1953....... | 149 | 360 | 0 | 509 | 53 | 108 | 197 | 151 | 348 392 |
| 1954........ | 108 | 442 | 0 | 550 | 66 | 92 | 226 | 166 | 392 |

$\frac{1}{2}$ / Compiled by the Bureau of the Census.
$\underline{2} /$ Consists mainly of turpentine distributed through retailers who are not covered by these surveys.

Table 5.--Gurr rosin: U. S. supply and distribution, annual, 1932-1954 (Thousand drums of 520 pounds net)

| Year beginning. April 1 | Supply |  |  |  | Distribution |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks <br> April 1 | $\begin{aligned} & \text { Produc- } \\ & \text { tion } \end{aligned}$ | $\begin{gathered} \text { Imports } \\ 1 / \end{gathered}$ | Total supply | Exports 1/ | Stocks <br> Mar. 31 | Domestic disappearance |  |  |
|  |  |  |  |  |  |  | - Reported industrial consumption | Not accounted for $2 /$ | Total |
| 1932. | --- | 1,363 | 3/ | --- | 728 | --" | --* | --- | --- |
| 1933. | --- | 1,431 | $\overline{3}$ | --- | 775 | --- | --- | --- | --- |
| 1934. | --- | 1,387 | 2 | --- | 657 | --- | --- | --- | --- |
| 1935........ | --- | 1,361 | 2 | --- | 741 | -- | -- | --- | --- |
| 1936. | - | 1,287 | 2 | --- | 633 | -~ | --- | --- | --- |
| 1937. | --- | 1,388 | $3 /$ | --- | 592 | 612 | --- | --- | --- |
| 1938. | 612 | 1,467 | 3/ | 2,079 | 401 | 1,120 | --- | --- | --- |
| 1939. | 1.120 | 1, 054 | $\overline{2}$ | 2,176 | 471 | 1,128 | 574 | 3 | 577 |
| 1940. | 1,128 | 939 | 2 | 2,069 | 220 | 1,323 | 463 | 63 | 526 |
| 1941. | 1,323 | 791 | 2 | 2,116 | 343 | 985 | 776 | 12 | 788 |
| 1942. | 985 | 869 | 1 | 1,855 | 190 | 1,060 | 554 | 51 | 605 |
| 1943. | 1,060 | 784 | 4 | 1,848 | 311 | 648 | 734 | 155 | 889 |
| 1944. | 648 | 692 | 17 | 1,357 | 160 | 266 | 947 | -16 | 931 |
| 1945. | 266 | 694 | 10 | 970 | 105 | 238 | 616 | 11 | 627 |
| 1946. | 238 | 752 | $3 /$ | 990 | 320 | 127 | 539 | 4 | 543 |
| 1947. | 127 | 828 | 3/ | 955 | 296 | 162 | 457 | 40 | 497 |
| 1948. | 162 | 921 | 1 | 1,084 | 236 | 477 | 352 | 19 | 371 |
| 1949. | 477 | 925 | 4 | 1,406 | 257 | 802 | 317 | 30 | 347 |
| 1950. | 802 | 798 | 4 | 1,604 | 595 | 459 | 484 | 66 | 550 |
| 1951.. | 459 | 716 | 2 | 1,177 | 293 | 492 | 370 | 22 | 392 |
| 1952. | 492 | 638 | 3 | 1, 133 | 139 | 682 | 302 | 10 | 312 |
| 1953. | 682 | 532 | 1 | 1, 215 | 132 | 735 | 310 | 38 | 348 |
| 1954. . . . . . . . . | 735 | 528 | $3 /$ | 1, 263 | 209 | 709 | 313 | 32 | 345 |

1/ Compiled by the Bureau of the Census
I/ Due to unreported industrial consumption and to failure of some consumers to distinguish in their reports between gum rosin, wood rosin, and modified or derived rosin.

3/ Less than 500 drums.
Table 6. --Wood rosin: U. S. supply and distribution, annual, 1932-1954
(Thousand drums of 520 pounds net)

| Year beginning April 1 | Supply |  |  |  | Distribution |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks <br> April 1 | Production | Imports $1 /$ | Total supply | Exports$\underline{1}$ | Stocks Mar, 31 | Domestic disappearance |  |  |
|  |  |  |  |  |  |  | Reported industrial consumption | $\begin{aligned} & \text { Not } \\ & \text { accounted } \\ & \text { for } 2 / \end{aligned}$ | Total |
| 1932. | --- | 296 | 0 | --- | 143 | --- | --- | --- | --- |
| 1933. | --- | 407 | 0 | --- | 187 | --- | --- | --- | --- |
| 1934. | - | 396 | 0 | -- | 189 | -- | -- | --- | --- |
| 1935. | --- | 460 | 0 | --- | 223 | --- | --- | --- | --. |
| 1936. | --- | 579 | 0 | --- | 250 | -- | --- | --- | --. |
| 1937. | --- | 643 | 0 | --- | 235 | 187 | --- | -- | --- |
| 1938. | 187 | 610 | 0 | 797 | 256 | 178 | --- | --- | --- |
| 1939. | 178 | 760 | 0 | 938 | 310 | 128 | 370 | 130 | 500 |
| 1940. | 128 | 778 | 0 | 906 | 204 | 176 | 400 | 126 | 526 |
| 1941. | 176 | 917 | 0 | 1,093 | 233 | 163 | 535 | 162 | 697 |
| 1942. | 163 | 787 | 0 | 950 | 139 | 224 | 575 | 12 | 587 |
| 1943. | 224 | 679 | 0 | 903 | 144 | 147 | 579 | 33 | 612 |
| 1944. | 147 | 626 | 0 | 773 | 56 | 122 | 594 | 1 | 595 |
| 1945. | 122 | 758 | 0 | 880 | 102 | 138 | 603 | 37 | 640 |
| 1946. | 138 | 968 | 0 | 1,106 | 181 | 96 | 818 | 11 | 829 |
| 1947. | 96 | 1,163 | 0 | 1,259 | 296 | 116 | 876 | -29 | 847 |
| 1948. | 116 | 1,155 | 0 | 1,271 | 266 | 141 | 890 | -26 | 864 |
| 1949. | 141 | 1,099 | 0 | 1,240 | 305 | 92 | 850 | - 7 | 843 |
| 1950. | 92 | 1,339 | 0 | 1,431 | 346 | 100 | 1,020 | -35 | 985 |
| 1951. 1952. | 100 | 1,333 | 0 | 1,433 | 279 | 231 | 952 | -29 | 923 |
| 1952. | 231 | 1, 083 | 0 | 1,314 | 218 | 178 | 926 | - 8 | 918 |
| 1954. | 178 | 1,213 | 0 | 1,391 | 384 | 93 | 942 | -28 | 914 |
| 1954. | 93 | 1,342 | 0 | 1,435 | 458 | 90 | 943 | -56 | 887 |

$\frac{1}{2}$ / Compiled by the Bureau of the Census.
$2 /$ Due to unreported industrial consumption and to failure of some consumers to distinguish in their reports
between gum rosin, wood rosin, and modified or derived rosin.

Table 7.--Rosin: U. S. supply and distribution, annual, 1922-1954
(Thousand drums of 520 pounds net)'

| Year beginning April 1 | Supply |  |  |  | Distribution |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks April 1 | Production | $\begin{gathered} \text { Imports } \\ 1 / \end{gathered}$ | Total supply | $\text { Exports } \begin{gathered} \text { 1/ } \end{gathered}$ | Stocks <br> Mar. 31 | Domestic disappearance |  |  |
|  |  |  |  |  |  |  | $\begin{gathered} \text { Reported } \\ \text { industrial } \\ \text { consumption } \\ \hline \end{gathered}$ | Not accounted for $2 /$ | Total |
| 1922..... | 959 | 1,542 | 1 | 2,502 | 760 | 906 | 604 | 232 | 836 |
| 1923. | 906 | 1,695 | 2 | 2,603 | 936 | 799 | 722 | 146 | 868 |
| 1924. | 799 | 1,610 | 1 | 2,410 | 1,171 | 517 | 692 | 30 | 722 |
| 1925. | 517 | 1,516 | 14 | 2,047 | 867 | 355 | 803 | 22 | 825 |
| 1926. | 355 | 1,680 | 18 | 2, 053 | 904 | 397 | 787 | -35 | 752 |
| 1927. | 397 | 2,093 | 3 | 2,493 | 1,098 | 487 | 726 | 182 | 908 |
| 1928. | 487 | 1,867 | 3 | 2,357 | 1,023 | 482 | 758 | 94 | 852 |
| 1929. | 482 | 2,070 | 2 | 2,554 | 1,093 | 487 | 884 | 90 | 974 |
| 1930...... | 487 | 1,972 | 1 | 2,460 | 976 | 674 | 727 | 83 | 810 |
| 1931. | 674 | 1,613 | 1 | 2, 288 | 896 | 827 | 634 | -69 | 565 |
| 1932. | 827 | 1,659 | 3/ | 2,486 | 871 | 678 | 572 | 365 | 937 |
| 1933. | 678 | 1, 838 | $\overline{3}$ | 2,519 | 962 | 743 | 673 | 141 | 814 |
| 1934. | 743 | 1,783 | 2 | 2,528 | 846 | 783 | 708 | 191 | 899 |
| 1935. | 783 | 1, 821 | 2 | 2,606 | 964 | 613 | 822 | 207 | 1,029 |
| 1936. | 613 | 1,866 | 2 | 2,481 | 883 | 531 | 975 | 92 | 1,067 |
| 1.937. | 531 | 2,031 | 3/ | 2,562 | 827 | 799 | 883 | 53 | 936 |
| 1938. | 799 | 2,077 | 3/ | 2,876 | 657 | 1,298 | 822 | 99 | 921 |
| 1939.... | 1, 298 | 1,814 | $\overline{2}$ | 3,114 | 781 | 1,256 | 944 | 133 | 1,077 |
| 1940. | 1,256 | 1, 717 | 2 | 2,975 | 424 | 1,499 | 863 | 189 | 1, 052 |
| 1941. | 1,499 | 1,708 | 2 | 3,209 | 576 | 1, 148 | 1,311 | 174 | 1,485 |
| 1942. | 1, 148 | 1,656 | 1 | 2,805 | 329 | 1,284 | 1,129 | 63 | 1, 192 |
| 1943. | 1,284 | 1,463 | 4 | 2, 751 | 455 | 795 | 1, 313 | 188 | 1,501 |
| 1944. | 795 | 1,318 | 17 | 2,130 | 216 | 388 | 1,541 | -15 | 1,526 |
| 1945. | 388 | 1,452 | 10 | 1,850 | 207 | 376 | 1,219 | 48 | 1,267 |
| 1946. | 376 | 1,720 | $3 /$ | 2,096 | 501 | 223 | 1, 357 | 15 | 1,372 |
| 1947. | 223 | 1,991 | 3/ | 2,214 | 592 | 278 | 1,333 | 11 | 1, 344 |
| 1948. | 278 | 2,076 | $\overline{1}$ | 2,355 | 502 | 618 | 1,242 | - 7 | 1, 235 |
| 1949...... | 618 | 2,024 | 4 | 2,646 | 562 | 894 | 1, 167 | 23 | 1,190 |
| 1950..... | 894 | 2,137 | 4 | 3,035 | 941 | 559 | 1,504 | 31 | 1,535 |
| 1951. | 559 | 2,049 | 2 | 2,610 | 572 | 723 | 1, 322 | - 7 | 1,315 |
| 1952. | 723 | 1,721 | 3 | 2,447 | 357 | 860 | 1,228 | 2 | 1,230 |
| 1953..... | 860 | 1, 745 | 1 | 2,606 | 516 | 828 | 1,252 | 10 | 1,262 |
| 1954..... | 828 | 1,870 | 3/ | 2,698 | 667 | 7.99 | 1,256 | -24 | 1,232 |

1/ Compiled by the Bureau of the Census.
2/ Due to unreported industrial consumption and to failure of some consumers to distinguish in their reports between gum rosin, wood rosin, and modified or derived rosin.

3/ Less than 500 drums.

FIGURE 5.


Figure 6.


| Crop year beginning April 1 | Adhesives and plastics | Asphaltic products | Chemicals and pharmaceu- ticals |  | Foundries and foundry supplies | Insecticides and disinfectants | Linoleum and floor covering |  | Paint varnish and lacquer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922..... | 1,308 | $1 /$ | 284 | --- | 291 | --- | 69 | 794 | 142, 351 |
| 1923...... | 1,404 | $1 /$ | 314 | --- | 402 | -"- | 54 | 1,165 | 106,092 |
| 1924.. | 1,026 | $1 /$ | 236 | --- | 387 | -- | 0 | 2,912 | 107, 304 |
| 1925...... | 1,221 | $1 /$ | 1,541 | --- | 440 | --- | 83 | 2,496 | 114, 108 |
| 1926.... | 1,326 | 1/ | 581 | --- | 324 | --- | 110 | 3,617 | 88,569 |
| 1927..... | 1,185 | $1 /$ | 484 | --- | 434 | --- | 65 | 2,268 | 94,023 |
| 1928..... | 1,365 | $\underline{1 /}$ | 1, 105 | --- | 300 | --- | 46 | 859 | 86, 130 |
| 1929..... | 1,506 | $1 /$ | 1,209 | "-- | 203 | --- | 2 | 568 | 92,610 |
| 1930..... | 1,405 | $1 /$ | 1,404 | --- | 543 | --- | 55 | 436 | 81,795 |
| 1931. | 847 | $1 /$ | 825 | --- | 126 | --- | 54 | 1,084 | 68,898 |
| 1932..... | 725 | $1 /$ | 650 | 21 | 115 | --- | 51 | 586 | 45,604 |
| 1933..... | 625 | $1 /$ | 748 | 21 | 206 | --- | 2 | 201 | 51,365 |
| 1934..... | 632 | $1 /$ | 802 | $2 /$ | 167 | --- | 6 | 191 | 51,725 |
| 1935 . | 749 | 8 | 1,346 | 13 | 326 | 600 | 39 | 225 | 66,538 |
| 1936..... | 628 | 2 | 3/21,583 | 0 | 1,085 | 471 | 72 | 45 | 61,528 |
| 1937..... | 638 | 0 | 31,275 | 0 | 759 | 526 | 67 | 45 | 55,985 |
| 1938..... | 526 | 1 | 22, 249 | 9 | 576 | 452 | 68 | 37 | 51, 292 |
| 1939..... | 716 | 1 | 36,026 | 0 | 659 | 354 | 147 | 24 | 53,730 |
| 1940..... | 365 | 0 | 40, 413 | 0 | 847 | 486 | 78 | 84 | 51,437 |
| 1941..... | 343 | 0 | 55,625 | 0 | 1.055 | 354 | 52 | 49 | 63, 849 |
| 1942..... | 591 | 0 | 54,532 | 358 | 1, 012 | 192 | 32 | 27 | 28,326 |
| 1943..... | 467 | 0 | 122,368 | 4/15, 176 | 623 | 221 | 33 | 73 | 23,690 |
| 1944..... | 352 | 0 | 129,957 | 4/13,914 | 626 | 115 | 41 | 274 | 20,745 |
| 1945..... | 264 | 0 | 107,078 | 4/16,945 | 616 | 16 | 36 | 72 | 17,828 |
| 1946. . | 228 | 56 | 91,332 | 4/14,444 | 809 | 15 | 3 | 27 | 17,059 |
| 1947 | 166 | 499 | 96,878 | 4/17, 178 | 882 | 25 | 1 | 25 | 15,048 |
| 1948..... | 179 | 334 | 63,155 | 4/16,295 | 726 | 17 | 0 | 48 | 13,584 |
| 1949..... | 149 | 117 | 75,623 | 4/15,720 | 564 | 35 | 0 | 17 | 12, 141 |
| 1950..... | 160 | 277 | 130,118 | 61 | 382 | 29 | 0 | 21 | 13,293 |
| 1951..... | 121 | 1 | 207, 731 | 65 | 288 | 23 | 0 | 65 | 11,351 |
| 1952..... | 108 | 0 | 164,315 | 43 | 279 | 22 | 0 | 77 | 9, 777 |
| 1953..... | 76 | 0 | 187, 423 | 0 | 167 | 8 | 0 | 89 | 9, 262 |
| 1954..... | 63 | 0 | 219,558 | 0 | 149 | 8 | 0 | 94 | 7,977 |

Table 8.--Turpentine: Annual industrial consumption, by industries, 1922-1954--Continued
(Barrels of 50 gallons)

| Crop year beginning 4pril I | Paper and paper size | $\begin{aligned} & \text { Printing } \\ & \text { ink } \end{aligned}$ | Railroad and shipyards | Rubber | Shoe polish and shoe material | Soap | Other industries | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922...... | 182 | 273 | 536 | --- | 19,627 | 580 | 8,083 | 174,378 |
| 1923....... | 276 | 189 | 377 | --- | 16,135 | 635 | 7,056 | 134,099 |
| 1924....... | 235 | 257 | 381 | --- | 16,029 | 444 | 5,581 | 134, 792 |
| 1925...... | 117 | 218 | 315 | --- | 16,489 | 71 | 6,383 | 143,482 |
| 1926...... | 139 | 251 | 321 | --- | 10,682 | 107 | 6,314 | 112,341 |
| 1927. ..... | 73 | 301 | 317 | --- | 11,993 | 32 | 5,591 | 116, 766 |
| 1928...... | 85 | 203 | 826 | --- | 11, 222 | 32 | 3,909 | 106, 082 |
| 1929....... | 123 | 285 | 1,257 | --- | 11,358 | 84 | 3,249 | 112,454 |
| 1930....... | 35 | 224 | 1,310 | --- | 10,557 | 211 | 2,929 | 100,904 |
| 1931....... | 47 | 291 | 925 | --- | 11,101 | 114 | 2,561 | 86,873 |
| 1932....... | 33 | 453 | 684 | --- | 10,986 | 175 | 1,464 | 61,526 |
| 1933. . . . . | 29 | 389 | 511 | --- | 11,516 | 113 | 1,683 | 67,388 |
| 1934....... | 43 | 376 | 718 | --- | 12,678 | 200 | 1,767 | 69,305 |
| 1935.... | 0 | 200 | 3,875 | 1,114 | 10,234 | 125 | 2,536 | 87,928 |
| 1936. | 0 | 212 | 5,102 | 168 | 11,267 | 181 | 3,066 | 105,410 |
| 1937.... | 0 | 271 | 4,421 | 138 | 10, 726 | 9 | 2,739 | 107,599 |
| 1938... | 0 | 489 | 3,372 | 125 | 10,711 | 213 | 2,675 | 93, 295 |
| 1939. | 0 | 179 | 5,071 | 149 | 12,505 | 0 | 1,701 | 111,262 |
| 1940....... | 0 | 230 | 6,107 | 230 | 12,453 | 0 | 1,804 | 114, 534 |
| 1941.. | 0 | 237 | 7,865 | 182 | 15,470 | 0 | 1,248 | 146,329 |
| 1942....... | 0 | 201 | 8,772 | 106 | 10,322 | 0 | 892 | 105,363 |
| 1943....... | 0 | 207 | 9,928 | 123 | 13,806 | 0 | 664 | 187,379 |
| 1944....... | 0 | 307 | 9,977 | 657 | 12,620 | 0 | 611 | 190,196 |
| 1945..... | 0 | 216 | 8,518 | 629 | 11,336 | 0 | 536 | 164,090 |
| 1946. . | 0 | 200 | 6,390 | 399 | 8,652 | 0 | 445 | 140,059 |
| 1947. | 0 | 154 | 4,910 | 357 | 4, 143 | 0 | 343 | 140,609 |
| 1948. | 0 | 160 | 5,314 | 269 | 3,507 | 0 | 369 | 103,957 |
| 1949. | 0 | 156 | 4,438 | 168 | 3,039 | 0 | 275 | 112,442 |
| 1950. . | 0 | 145 | 4,952 | 281 | 2,798 | 0 | 319 | 152,836 |
| $1951 .$. | 0 | 169 | 7,259 | 197 | 2,214 | 0 | 290 | 229,774 |
| 1952. | 0 | 105 | 5,957 | 333 | 3, 020 | 0 | 278 | 184,314 |
| 1953. | 0 | 108 | 5,323 | 311 | 2,526 | 0 | 249 | 205,542 |
| 1954. | 0 | 140 | 5/ | 119 | 1,719 | 0 | 2,533 | 232,360 |

1/ Included in adhesives and plastics.
2/ Included in paint, varnish and lacquer.
3/ Beginning in 1936 includes turpentine consumed in producers plants in the production of unclassified derived products.

4/ Includes turpentine used in making Beta pinene for consumption in manufacturing synthetic resins; for other years turpentine used for this purpose is included in chemicals and pharmaceuticals.

5/ Consumption by railroads, primarily for maintenance omitted. Shipyards included in other industries.

Table 9.--Rosin: Annual industrial consumption, by industries, 1922-1954
(Drums of 520 lbs, net)

| Crop year beginning April 1 | Adhesives and plastics | Asphaltic products | $\begin{gathered} \text { Chemicals } \\ \text { and } \\ \text { pharmaceu- } \\ \text { ticals } \end{gathered}$ | Ester gum and synthetic resins | Foundries and foundry supplies | Insecticides and disinfectants | Linoleum and floor covering | $\begin{gathered} \text { Oils } \\ \text { and } \\ \text { greases } \end{gathered}$ | $\begin{gathered} \text { Paint } \\ \text { varnish } \\ \text { and } \\ \text { lacquex } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922. | I/26, 755 | 2/ | 1,366 | --- | 12,599 | --- | 23,391 | 1/31,373 | 143.455 |
| 1923. | 1/31,702 | $2 /$ | 2,074 | --- | 11,382 | --- | 26,930 | 1/37,174 | 173,854 |
| 1924. | 35,357 | $2 /$ | 1,494 | --- | 15,658 | --- | 23,592 | 41,504 | 175,393 |
| 1925. | 37,251 | $2 /$ | 2,390 | --- | 16,598 | --- | 30,198 | 42,893 | 182,566 |
| 1926. | 41,200 | 21 | 4,161 | - - - | 16,842 | --- | 35,486 | 46, 202 | 175,624 |
| 1927. | 30,939 | 2/ | 6,770 | --- | 13,526 | --- | 30, 069 | 45,290 | 183, 021 |
| 1928. | 27,630. | $2 /$ | 2,967 | --- | 14,846 | --- | 46,563 | 38,887 | 196, 126 |
| 1929. | 32,714 | $2 /$ | 4,266 | --- | 23,479 | --- | 35,849 | 43,542 | 227, 074 |
| 1930. | 21,033 | $2 /$ | 4,197 | --- | 13,919 | --- | 23,566 | 39,862 | 154, 302 |
| 1931. | 11,122 | $2 /$ | 3,150 | --- | 5,754 | --- | 17,397 | 23,652 | 124,474 |
| 1932. | 9,247 | $2 /$ | 2,422 | 3/ | 2,930 | --- | 12,802 | 17,519 | 96,992 |
| 1933. | 9,215 | $2 /$ | 3,111 | 3/ | 1,336 | --- | 15,624 | 24, 507 | 134,912 |
| 1934. | 12,892 | 2/ | 2,445 | 3/ | 1,908 | --- | 12,683 | 25,466 | 140,800 |
| 1935. | 21,330 | 1,446 | 2,696 | 79,006 | 8,974 | 4,286 | 19,720 | 27,476 | 117,796 |
| 1936. | 14,402 | 1,378 | 4/94, 723 | 81,513 | 13,488 | 3,355 | 27,820 | 25, 177 | 112, 034 |
| 1937. | 14,077 | 848 | 95,397 | 89,450 | 12,182 | 3,248 | 21,986 | 19,598 | 109,518 |
| 1938. | 9,453 | 774 | 98,671 | 86,889 | 6,360 | 3,170 | 21,850 | 19,014 | 104, 222 |
| 1939. | 14,374 | 861 | 130,866 | 101,629 | 8.682 | 4,100 | 29,807 | 24,861 | 126,015 |
| 1940. | 13,434 | 6,987 | 92,806 | 101,784 | 13,392 | 2,942 | 31,418 | 24,086 | 126,238 |
| 1941. | 18,455 | 3,667 | 201,001 | 216,382 | 21,264 | 4,535 | 41,209 | 32,825 | 174,198 |
| 1942. | 13,756 | 2,411 | 207,012 | 148, 263 | 9, 242 | 4,563 | 32,745 | 50,938 | 131,295 |
| 1943. | 20,046 | 2,394 | 182,004 | 146,618 | 17,476 | 5,530 | 14,687 | 29.921 | 126,340 |
| 1944. | 30,926 | 2,473 | 265,022 | 249, 252 | 14,979 | 6,032 | 19,152 | 42,372 | 133,136 |
| 1945..... | 22,656 | 1,727 | 272,303 | 250,835 | 14,364 | 5,407 | 9,602 | 26,431 | 101,240 |
| 1946. | 20,249 | 1,622 | 344,207 | 269,406 | 13,197 | 5,170 | 20,209 | 17,493 | 113,355 |
| 1947. | 18,095 | 1, 632 | 350,103 | 257,929 | 10,004 | 3,338 | 33,532 | 13,193 | 112,890 |
| 1948. | 19,995 | 1,232 | 345,769 | 213,096 | 5,425 | 2,490 | 41,410 | 16,449 | 110,489 |
| 1949. | 20,096 | 885 | 329,867 | 199,862 | 3,332 | 2,314 | 30,994 | 15,683 | 93,360 |
| 1950. | 23,714 | 894 | 5/402,182 | 319,878 | 2,747 | 2,409 | 38,230 | 21,457 | 102,537 |
| 1951. | 21,783 | 593 | 370,544 | 243,565 | 3,016 | 2,070 | 31,813 | 16,649 | 80,633 |
| 1952. | 20,036 | 853 | 317,273 | 260,638 | 1.946 | 1,966 | 30,713 | 17,021 | 78,409 |
| 1953. | 18,275 | 1,027 | 361,935 | 262,085 | 1,354 | 1,679 | 22,040 | 14,769 | 74,398 |
| 1954. | 17,236 | 557 | 365,912 | 247,462 | 643 | 1,377 | 14,839 | 13,024 | 67,745 |

See footnotes at end of table, page 19.

Table 9.--Rosin: Annual industrial consumption, by industries, 1922-1954--Continued (Drums of 520 lbs . net)

| Crop year beginning April 1 | Paper and paper size | $\begin{aligned} & \text { Printing } \\ & \text { ink } \end{aligned}$ | ```Railroad and shipyards``` | Rubber | Shoe polish and shoe material | Soap | Other industries | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922. | 129,882 | I/ 5, 123 | 52 | --- | 794 | 226,160 | 2,992 | 603,942 |
| 1923. | 199, 085 | 1/ 6,070 | 34 | --- | 634 | 229,404 | 3,265 | 721,608 |
| 1924. | 220,282 | - 6,790 | 90 | -ッ- | 167 | 167,930 | 3,616 | 691,873 |
| 1925. | 250,692 | 11,356 | 61 | --- | 270 | 224,984 | 4, 184 | 803,443 |
| 1926. | 260, 250 | 11,329 | 82 | --- | 862 | 189, 211 | 6,019 | 787, 268 |
| 1927. | 237, 941 | 11,642 | 72 | --- | 724 | 160,363 | 5,204 | 725,561 |
| 1928. . . . | 267, 154 | 11,852 | 83 | --- | 508 | 146,030 | 5,264 | 757,910 |
| 1929. . . . | 310,648 | 12,215 | 632 | --- | 575 | 182,879 | 9,944 | 883, 817 |
| 1930. . . . | 273,062 | 10,483 | 2,469 | --- | 488 | 175,174 | 8, 183 | 726,738 |
| 1931. | 239,947 | 12,131 | 59 | --- | 470 | 191,895 | 4,325 | 634,376 |
| 1932. | 208, 800 | 8,180 | 86 | --- | 232 | 209,080 | 3,436 | 571,726 |
| 1933. | 256, 752 | 9,342 | - 31 | --- | 680 | 211,338 | 6, 169 | 673,017 |
| 1934. | 269,600 | 9,498 | 48 | --- | 904 | 226, 772 | 4,852 | 707,868 |
| 1935. | 285, 714 | 12,090 | 194 | 2,035 | 7,897 | 223,000. | 8,405 | 822,065 |
| 1936. | 328,620 | 12,749 | 167 | 2,341 | 6,997 | 237,658 | 12,544 | 974,966 |
| 1937. | 272,160 | 10,210 | 232 | 2,178 | 6,541 | 218,256 | 7,036 | 882, 917 |
| 1938. | 254, 689 | 9, 251 | I, 092 | 3,135 | 8,542 | 187,942 | 7,339 | 822,393 |
| 1939..... | 284,498 | 10,705 | 858 | 3,922 | 7,382 | 188,011 | 7,516 | 944, 087 |
| 1940. . . . | 262, 350 | 12,402 | 2,178 | 5,242 | 6,850 | 153, 013 | 7,863 | 862,985 |
| 1941. . . . | 355, 155 | 12,923 | 5,128 | 5,661 | 9,721 | 201, 094 | 7,704 | 1,310,922 |
| 1942. | 293,617 | 15,374 | 5,458 | 5,282 | 7,607 | 190,926 | 10,377 | 1, 128,866 |
| 1943. | 382, 368 | 16,618 | 11,896 | 11, 383 | 9.852 | 327, 058 | 8,469 | 1, 312,660 |
| 1944. | 379,383 | 12,680 | 24,855 | 22,529 | 7,235 | 324, 164 | 7,176 | 1,541,366 |
| 1945.... | 274,022 | 7,435 | 17,747 | 21,234 | 5,604 | 182,683 | 5,944 | 1,219,234 |
| 1946. | 341, 772 | 9,392 | 8, 827 | 26, 288 | 5,362 | 152,808 | 7,588 | 1,356,945 |
| 1947. | 347, 162 | 7,530 | 4,653 | 17,741 | 5,166 | 144,090 | 5,681 | 1,332,739 |
| 1948. | 354, 941 | 6,326 | 6,499 | 15, 248 | 4,144 | 94, 293 | 4,513 | 1,242,319 |
| 1949. | 365, 740 | 5,492 | 7,980 | 9,611 | 4,382 | 74, 041 | 3,778 | $1,167,417$ |
| 1950. | 5/457,922 | 6,357 | 7,042 | 16,308 | 5,011 | 92,835 | 4,222 | 1,503,745 |
| 1951. | 443, 083 | 5,442 | 12,484 | 24,182 | 4,871 | 57,893 | 3,271 | 1,321,892 |
| 1952. | 398, 052 | 6,520 | 6,663 | 34,910 | 4,128 | 46,462 | 2,890 | 1,228,480 |
| 1953. | 399,521 | 7,730 | 3,467 | 40,458 | 2,938 | 37,479 | 2,797 | 1,251,952 |
| 1954 | 438,615 | 8,395 | 61 | 36,06I | 2,718 | 36,909 | 4,447 | 1,255,940 |

1/The breakdown between adhesives and plastics, oils and greases, and printing ink is an approximation. 2/ Included in adhesives and plastics.
3/ Included in paint, varnish and lacquer.
4/ Beginning in 1936, includes turpentine consumed in producers plants in the production of unclassified erived products.
5/ Prior to Oct. 1, 1950, all "B wood resin" included in chemicals and pharmaceuticals; after that date
'Bood resin' used in making paper size is included in paper and paper size.
6/ Consumption by railroads, primarily for maintenance, is omitted. Shipyards included in other industries.

## REPORTED CONSUMPTION OF ROSIN BY INDUSTRIES




[^1]Table 10.--Miscellaneous naval stores: U. S. production and stocks, annual, 1942-1954
(Barrels of 50 gallons)

| Year beginning April 1 | Dipentene | Pine oil | Pine tar | Other monocyclic hydrocarbons | Rosin oil |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Production: |  |  |  |  |  |
| 1942............ | 24,550 | 120,000 | 104,920 | 35,940 | - |
| 1943............ | 18,410 | 106,340 | 95,770. | 34,900 | --- |
| 1944............ | 18,640 | 103,490 | 84,770 | 33,720 | 24,960 |
| 1945............ | 19,400 | 110,070 | 81,990 | 33,710 | 18,080 |
| 1946............. | 27,320 | 130,980 | 101,000 | 40, 120 | 18,090 |
| 1947. | 26,980 | 151,040 | 107,660 | 37,640 | 13,290 |
| 1948............. | 26,170 | 148,670 | 107,250 | 39,470 | 18,620 |
| 1949............. | 29,710 | 141,260 | 97,970 | 44,030 | 21,500 |
| 1950.... . . . . . . | 44,630 | 173,170 | 119,020 | 50,530 | 30,910 |
| 1951............. | 39,030 | 174,510 | 125,830 | 58,980 | 24,000 |
| 1952........... | 35,890 | 145,800 | 96,210 | 47,230 | 25,980 |
| 1953. . . . . . . . . . | 31,650 | 169,850 | 102, 180 | 70,710 | 21,560 |
| 1954............ | 32,010 | 189,310 | 90,530 | 76,210 | 20,000 |
| Stocks end of year 1/: |  |  |  |  |  |
| 1942............ | 18,460 | 18,830 | 2,550 | 10,660 | --- |
| 1943. | 4,100 | 7,190 | 810 | 4,820 | --- |
| 1944. . . . . . . . . . | 3,190 | 10,300 | 1,530 | 5,020 | 2,910 |
| 1945. | 3,160 | 12,020 | 1,780 | 6,320 | 2,970 |
| 1946. | 4,020 | 12,810 | 1,700 | 9,840 | 2,260 |
| 1947. | 8,250 | 37,000 | 1,760 | 18,640 | 2,160 |
| 1948. | 5,490 | 37,280 | 6,480 | 27,260 | 2,510 |
| 1949............ | 2,590 | 15,520 | 8,370 | 32,460 | 2,690 |
| 1950. | 2,220 | 12,560 | 2,150 | 20,020 | 3,990 |
| 1951. | 2,940 | 17,520 | 9,870 | 21,200 | 3,960 |
| 1952. | 2,500 | 12,090 | 9,110 | 10,310 | 3,880 |
| 1953. | 7,090 | 13,820 | 9,860 | 28,090 | 4,880 |
| 1954. | 8,210 | 19,560 | 2,200 | 34,560 | 3,460 |

1/ Includes consigned stocks.
Table 11.--Turpentine cups: Number sold for crop years, 1923-1955

| Year beginning April 1 | Number | Year beginning April 1 | Number | Year beginning April | Number |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thousands |  | Thousands |  | Thousands |
| 1923. | 24,828 | 1935.... | 6,219 | 1945.... | 6,084 |
| 924. | 13,249 | 1936. | 17,530 | 1946. | 6,376 |
| 925. | 10,059 | 1937. | 17,205 | 1947. | 7,093 |
| 926. | 20,500 | 1938. | 10,525 | 1948. | 7,802 |
| 1927. | 32,310 | 1938. | 10,525 1,638 | 1949. . . . . . . | 3,989 |
| 928. 929. | 12,589 |  | 1,638 |  |  |
|  | 24,489 | 1940. | 7,568 | 1950........ | 3,939 |
| 930. | 11,179 | 1940. |  | 1951........ | 4, 106 |
| 931. 932 | 1, 085 | 1941. | 2,744 | 1952........ | 2,156 |
| 932. 933. | 3,620 | 1942. | 8,648 | 1953......... | 691 |
| 933. 934. | 11,088 | 1943. | 4, 253 | 1954..... | 604 |
| \% | 11,708 | 1944. | 4,649 | 1955. | 1,077 |

Table 12.--Price and value of gum naval stores, annual, 1900-1954

| Year begining April 1 | Season average price 1/ |  | Market value of gum naval stores |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bulk gum spirits of turpentine | Gum $\operatorname{rosin} 21$ | $\begin{aligned} & \text { Per } \\ & \text { unit 3/ } \end{aligned}$ | Turpentine | Rosin | $\begin{aligned} & \text { Turpentine } \\ & \text { and } \\ & \text { rosin } \end{aligned}$ |
|  | Dollars per gallon | Dollars per 1001 b . net | Dollars | Thousand dollars | Thousand dollars | Thousand dollars |
| 1900. | . 359 | --- | --- | 11, 129 | --- | -.- |
| 1901. | . 283 | . 61 | 22.69 | 8,490 | 5,075 | 13,565 |
| 1902. | . 414 | . 74 | 31.06 | 12,027 | 5,957 | 17,984 |
| 1903. | . 454 | 1.05 | 37.40 | 12,372 | 7,928 | 20,300 |
| 1904. | . 465 | 1.30 | 41.45 | 13,950 | 10,816 | 24,766 |
| 1905. | . 570 | 1.83 | 54.12 | 16,815 | 14,950 | 31,765 |
| 1906. | . 556 | 1.96 | 55. 24 | 16,346 | 15,961 | 32,307 |
| 1907. | . 490 | 1.93 | 51.52 | 14,332 | 18,306 | 32,638 |
| 1908. | . 331 | 1.46 | 36.99 | 12,412 | 15, 184 | 27,596 |
| 1909. | . 423 | 2.24 | 52.51 | 12,690 | 18,637 | 31,327 |
| 1910. | . 617 | 2.61 | 67.39 | 18,973 | 22,231 | 41,204 |
| 1911...... | . 481 | 2.97 | 65.63 | 15,873 | 27,151 | 43, 024 |
| 1912. | . 359 | 3.00 | 59.95 | 12,834 | 29,718 | 42,552 |
| 1913. | . 327 | 1.96 | 43.79 | 11,036 | 18,325 | 29,361 |
| 1914...... | . 388 | 1.83 | 45.02 | 10,864 | 14, 198 | 25,062 |
| 1915.. | . 370 | 1. 76 | 43.14 | 9, 805 | 12,923 | 22,728 |
| 1916. | . 370 | 2.54 | 54.06 | 11,285 | 21,476 | 32, 761 |
| 1917. | . 358 | 2.58 | 54.02 | 8,485 | 16,757 | 25,242 |
| 1918. | . 508 | 4.92 | 94.28 | 8,643 | 23,256 | 31,899 |
| 1919. | 1.212 | 7.49 | 165.46 | 22, 240 | 38,792 | 61,032 |
| 1920.. | 1.393 | 6.07 | 154.63 | 34, 059 | 40,623 | 74,682 |
| 1921. | . 566 | 1.83 | 53.92 | 13,759 | 12,590 | 26,349 |
| 1922. | 1.138 | 2.26 | 88.54 | 29,588 | 16,559 | 46, 147 |
| 1923. | . 892 | 2.03 | 73.02 | 25,199 | 16, 182 | 41,381 |
| 1924. | . 753 | 2.44 | 71.81 | 19,632 | 17,814 | 37,446 |
| 1925. | . 907 | 4.83 | 112.97 | 21,697 | 32,349 | 54,046 |
| 1926. | . 766 | 5.30 | 112.50 | 19,533 | 38,226 | 57,759 |
| 1927. | . 454 | 3.63 | 73.52 | 14, 755 | 33,316 | 48, 071 |
| 1928. | . 445 | 3.60 | 72.65 | 12,460 | 28,492 | 40,952 |
| 1929. | . 423 | 3.28 | 67.07 | 13,219 | 28,927 | 42, 146 |

See footnotes at end of table, page 23.

Table 12. --Price and value of gum naval stores, annual, 1900-1954--Continued


1/ Based on weighted Savannah Exchange price through 1950; thereafter on Market News Service. Six cents subtracted from turpentine prices as quoted in 1921-40 to eliminate cost of package.

2/ Basis K grade 1901-20; all grades thereafter.
3/ Unit consists of 50 gallons turpentine and 1400 pounds rosin.

Table 13. --Percent of still output of gum turpentine, by States, 1922-1954

| Year beginning April 1 | North and South Carolina | Georgia | Florida | Alabama | Missis- <br> sippi | $\begin{gathered} \text { Louisiana } \\ \text { and } \\ \text { Texas } \end{gathered}$ | Other <br> States | United States |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent | Percent | Percent | Percent | Percent | Percent | Percen | Percen |
| 1922. | 1.2 | 28.9 | 34.0 | 11.6 | $1 /$ | $1 /$ | 24.3 | 100.0 |
| 1923. | 1.6 | 37.0 | 35.9 | 7. 7 | I/ | I/ | 17.8 | 100.0 |
| 1924. | 1.7 | 38.7 | 35.1 | 7.0 | I/ | I/ | 17.5 | 100.0 |
| 1925...... | 2.1 | 41.3 | 37.9 | 6.5 | $1 /$ | $1 /$ | 12.2 | 100.0 |
| 1926. . . . . | 2.9 | 42.8 | 36.9 | 6.3 | I/ | $1 /$ | 11.1 | 100.0 |
| 1927. | 3.8 | 46.3 | 32.2 | 6.9 | $1 /$ | $1 /$ | 10.8 | 100.0 |
| 1928. | 4.1 | 45.9 | 32.2 | 7.1 | I/ | $1 /$ | 10.7 | 100.0 |
| 1929. | 4.0 | 50.9 | 31.4 | 6.4 | I/ | I/ | 7. 3 | 100.0 |
| 1930..... | 4. 5 | 51.7 | 30,6 | 5.7 | $1 /$ | $1 /$ | 7.5 | 100.0 |
| 1931. | 4.2 | 51.0 | 34.2 | 5.0 | I/ | $\underline{1 /}$ | 5.6 | 100.0 |
| 1932. | 3.3 | 53.6 | 29.2 | 8.4 | 2.3 | 3.2 | --- | 100.0 |
| 1933. | 3.6 | 52.0 | 30.8 | 8.7 | 2.2 | 2.7 | --- | 100.0 |
| 1934. | 3. 7 | 56.6 | 27.0 | 8.7 | 1.8 | 2. 2 | --- | 100.0 |
| 1935..... | 3.6 | 55.4 | 28.4 | 9.2 | 2.0 | 1.4 | --- | 100.0 |
| 1936..... | 3.1 | 57.3 | 25.8 | 10.6 | 2.3 | . 9 | --- | 100.0 |
| 1937. | 3.1 | 57.0 | 26.4 | 9.6 | 3.1 | . 8 | --- | 100.0 |
| 1938. | 2.7 | 57.2 | 27.9 | 8.4 | 3.1 | . 7 | --- | 100.0 |
| 1939..... | 2. 3 | 59.4 | 27.0 | 7.5 | 3.0 | . 8 | --- | 100.0 |
| 1940. | 1.8 | 63.4 | 25.2 | 6.8 | 2.3 | . 5 | --- | 100.0 |
| 1941. | 1.3 | 66.5 | 23.6 | 6.2 | 1.8 | . 6 | --- | 100.0 |
| 1942. | 1.2 | 69.4 | 21.5 | 6.2 | 1.4 | . 3 | --- | 100.0 |
| 1943...... | 1.1 | 68.9 | 22. 7 | 5.8 | 1.2 | . 3 | --- | 100.0 |
| 1944..... | . 9 | 68.3 | 23.5 | 5.7 | 1.3 | . 3 | --- | 100.0 |
| 1945. | . 7 | 74. 0 | 18.0 | 5.6 | 1.3 | . 4 | --- | 100.0 |
| 1946. | . 4 | 72.9 | 21.4 | 4.0 | 1.0 | . 3 | --- | 100.0 |
| 1947. | . 3 | 69.8 | 22.4 | 6.9 | . 2 | . 4 | -- | 100.0 |
| 1948. | $1 /$ | 74.4 | 18.3 | 6.7 | $1 /$ | $1 /$ | . 6 | 100.0 |
| 1949. | I/ | 74.9 | 18.3 | 6.1 | I/ | I/ | .7 | 100.0 |
| 1950. | $1 /$ | 76.3 | 17.3 | 6.0 | $1 /$ | 11 | . 4 | 100.0 |
| 1951. | $1 /$ | 77.1 | 16.8 | 5.4 | I/ | . 0 | . 7 | 100.0 |
| 1952. | $1 /$ | 76.4 | 17.2 | 5.8 | 1/ | . 0 | . 6 | 100.0 |
| 1953. | 1/ | 77.4 | 16.5 | $1 /$ | I/ | . 0 | 6.1 | 100.0 |
| 1954. | I/ | 79.8 | 13.9 | I/ | I/ | . 0 | 6.3 | 100.1 |

1 / Included in other States.

## LOCATION OF NAVAL STORES PRODUCTION PLANTS, 1954



- Sulphate
- Gum
* Steam distilled
- Destructively distilled

Table 14.--Turpentine production, by months, 1948-1954
(Barrels of 50 gallons)

| Crop year and month | ```Gum at central stills``` | Wood |  |  |  | Total gum and wood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Steam distilled | Destructively distilled | Sulphate | Total |  |
| 1948: |  |  |  |  |  |  |
| April. | 22,300 | 17,200 | 140 | 9,930 | 27,270 | 49,570 |
| May. | 31,180 | 16,820 | 170 | 9,990 | 26,980 | 58,160 |
| June. | 40,220 | 16,490 | 240 | 8,260 | 24,990 | 65, 210 |
| July. | 38,690 | 15,210 | 260 | 8,950 | 24,420 | 63, 110 |
| August. | 33, 110 | 19,250 | 210 | 9,530 | 28,990 | 62, 100 |
| September | 32,510 | 17,640 | 260 | 9,720 | 2.7,620 | 60,130 |
| October. | 24, 860 | 18,010 | 220 | 12,050 | 30, 280 | 55, 140 |
| November. | 23,570 | 17,560 | 230 | 12, 240 | 30, 030 | 53, 600 |
| December. | 18, 230 | 17,580 | 320 | 10,630 | 28,530 | 46, 760 |
| January. | 7,690 | 17,330 | 210 | 11,900 | 29,440 | 37, 130 |
| February | 7,350 | 16,550 | 230 | 10,080 | 26,860 | 34, 210 |
| March | 12,750 | 17,520 | 290 | 11,590 | 29,400 | 42, 150 |
| Crop year. | 292,460 | 207,160 | 2,780 | 124, 870 | 334, 810 | 627, 270 |
| 1949: |  |  |  |  |  |  |
| April. | 22, 120 | 16,710 | 330 | 10,850 | 27,890 | 50,010 |
| May. | 33,270 | 15,800 | 290 | 10,460 | 26,550 | 59,820 |
| June | 38,840 | 13,670 | 180 | 10,960 | 24,810 | 63,650 |
| July | 37,020 | 13, 160 | 110 | 9,690 | 22,960 | 59,980 |
| August | 36, 150 | 15,580 | 130 | 12,110 | 27, 820 | 63,970 |
| September | 30,920 | 16,490 | 500 | 11, 270 | 28,260 | 59,180 |
| October | 25,800 | 17,070 | 310 | 12,780 | 30, 160 | 55,960 |
| November | 23, 100 | 18,050 | 340 | 12,870 | 31, 260 | 54, 360 |
| December | 21,280 | 18,480 | 230 | 12,950 | 31,660 | 52,940 |
| January | 5,790 | 18,570 | 290 | 14,840 | 33,700 | 39,490 |
| February. | 8,120 | 17,800 | 140 | 14,310 | 32,250 | 40,370 |
| March | 11,340 | 18,250 | 300 | 14,410 | 32,960 | 44,300 |
| Crop year | 293, 750 | 199,630 | 3,150 | 147,500 | 350, 280 | 644,030 |
| 1950: $\quad$ ( ${ }^{\text {c }}$ |  |  |  |  |  |  |
| April. | 20,040 | 19,710 | 370 | 15,090 | 35,170 | 55,210 |
| May | 35,740 | 19,150 | 660 | 15,200 | 35,010 | 70,750 |
| June. | 37,430 | 17,250 | 410 | 14,600 | 32,260 | 69,690 |
| July . | 32, 190 | 17,650 | 370 | 13,870 | 31,890 | 64,080 |
| August. | 32,900 | 19,120 | 140 | 14,250 | 33,510 | 66,410 |
| September | 24,620 | 19,680 | 650 | 14,130 | 34,460 | 59,080 |
| October. | 19,670 | 19,930 | 780 | 17,390 | 38, 100 | 57, 770 |
| November. | 19,480 | 20,350 | 340 | 17,660 | 38,350 | 57,830 |
| December. | 13,520 | 21,540 | 410 | 16,660 | 38,610 | 52, 130 |
| January. | 9, 130 | 21,080 | 510 | 18,560 | 40, 150 | 49,280 |
| February | 4,890 | 20,660 | 400 | 17,250 | 38,310 | 43, 200 |
| March | 7, 170 | 20,960 | 370 | 19,520 | 40,850 | 48, 020 |
| Crop year | 256, 780 | 237,080 | 5,410 | 194, 180 | 436,670 | 693,450 |
| 1951: |  |  |  |  |  |  |
| April | 14,430 | 21,000 | 500 | 19,230 | 40,730 | 55, 160 |
| May | 30,330 | 20,430 | 570 | 14,030 | 35,030 | 65, 360 |
| June | 34,320 | 18,570 | 420 | 15,820 | 34,810 | 69, 130 |
| July. | 32,450 | 18,610 | 410 | 16,350 | 35,370 | 67, 820 |
| August | 31, 040 | 17,880 | 60 | 17,350 | 35,290 | 66,330 |
| September. | 23,280 | 17,490 | 380 | 16,090 | 33,960 | 57, 240 |
| October. | 19,810 | 20,210 | 250 | 19,910 | 40,370 | 60,180 |
| November | 16,440 | 19, 140 | 540 | 19,720 | 39,400 | 55, 840 |
| December | 13,630 | 17,760 | 380 | 17,200 | 35,340 | 48,970 |
| January... | 8,360 | 19,460 | 400 | 16,770 | 36,630 | 44, 990 |
| February | 5,150 | 19,610 | 230 | 14,400 | 34, 240 | 39,390 |
| March..... | 6,490 | 19,430 | 340 | 16,560 | 36,330 | 42,820 |
| Crop year . | 235,730 | 229,590 | 4,480 | 203,430 | 437,500 | 673,230 |

Table 14. --Turpentine production, by months, 1948-1954--Continued
(Barrels of 50 gallons)

| $\begin{aligned} & \text { Crop year } \\ & \text { and } \\ & \text { month } \end{aligned}$ | ```Gum at central stills``` | Wood |  |  |  | Total <br> gum and wood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Steam distilled | Destructively distilled | Sulphate | Total |  |
| 1952: |  |  |  |  |  |  |
| April. | 16,970 | 18,370 | 340 | 17,210 | 35,920 | 52,890 |
| May . | 26, 740 | 16,220 | 270 | 16,920 | 33,410 | 60,150 |
| June | 28,770 | 12,530 | 220 | 16,570 | 29,320 | 58,090 |
| July | 31,800 | 11,320 | 100 | 13,050 | 24,470 | 56, 270 |
| August | 25,620 | 12,900 | 290 | 12, 780 | 25,970 | 51, 590 |
| September. | 21,200 | 12,840 | 200 | 13,930 | 26,970 | 48, 170 |
| October . . | 17,690 | 14,620 | 360 | 14,720 | 29, 700 | 47,390 |
| November | 15, 160 | 14,230 | 120 | 15,050 | 29,400 | 44,560 |
| Decermber | 12,830 | 14,770 | 290 | 12,380 | 27,440 | 40, 270 |
| January | 5,270 | 16,900 | 270 | 12,780 | 29,950 | 35,220 |
| February. | 3,590 | 14,050 | 160 | 13,000 | 27,210 | 30,800 |
| March | 6,470 | 16,340 | 310 | 11, 170 | 27,820 | 34,290 |
| Crop year . . | 212,110 | I 75, 090 | 2,930 | 169,560 | 347, 580 | 559,690 |
| 1953: |  |  |  |  |  |  |
| April. | 13,220 | 16,800 | 200 | 12,810 | 29,810 | 43,030 |
| May | 20, 760 | 15,920 | 170 | 14,370 | 30,460 | 51,220 |
| June | 26,230 | 13,790 | 370 | 13,890 | 28, 050 | 54, 280 |
| July | 24, 290 | 14,370 | 200 | 11,690 | 26, 260 | 50,550 |
| August | 21,060 | 15,200 | 180 | 13,610 | 28,990 | 50, 050 |
| September | 17,670 | 15,740 | 300 | 13,320 | 29,360 | 47, 030 |
| October | 14,950 | 17,090 | 230 | 14,880 | 32, 200 | 47,150 |
| November | 12,990 | 16,260 | 190 | 13,540 | 29,990 | 42,980 |
| December | 10,500 | 16,490 | 300 | 11,310 | 28,100 | 38,600 |
| January | 5,760 | 18,300 | 280 | 13,960 | 32,540 | 38,300 |
| February. | 4,320 | 16,670 | 180 | 14,390 | 31, 240 | 35,560 |
| March | 4,480 | 16,460 | 260 | 16,450 | 33,170 | 37,650 |
| Crop year | 176,230 | 193,090 | 2,860 | 164,220 | 360,170 | 536,400 |
| 1954: |  |  |  |  |  |  |
| April. | 15,910 | 17,250 | 110 | 16,290 | 33,650 | 49,560 |
| May | 17,780 | 16,000 | 180 | 18,450 | 34,630 | 52,410 |
| June | 26, 100 | 16,260 | 210 | 18,340 | 34,810 | 60,910 |
| July . . | 24,820 | 17,210 | 160 | 14,310 | 31,680 | 56,500 |
| August . | 22,550 | 15,920 | 210 | 16,530 | 32,660 | 55,210 |
| September | 20,020 | 16,540 | 140 | 16,220 | 32,900 | 52,920 |
| October | 14,670 | 16,460 | 130 | 19,690 | 36,280 | 50,950 |
| November | 11,610 | 18,180 | 280 | 20,140 | 38,600 | 50,210 |
| December | 8, 080 | 18,050 | 180 | 19,760 | 37,990 | 46,070 |
| January. | 4,960 | 19,080 | 360 | 22,990 | 42,430 | 47,390 |
| February | 3,780 | 17,980 | 250 | 22,350 | 40,580 | 44,360 |
| March... | 5,120 | 18,770 | 200 | 26,680 | 45,650 | 50,770 |
| Srop year | 175,400 | 207,700 | 2,410 | 231,750 | 441, 860 | 617,260 |

Table 15.--Turpentine stocks, by months, 1948-1954
(Barrels of 50 gallons)

| End of month | Gum |  |  | Wood |  |  |  | Total <br> gum <br> and <br> wood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Controlled } \\ \text { by } \\ \text { CCC } 1 / \\ \hline \end{gathered}$ | Other | Total | $\begin{gathered} \text { Steam } \\ \text { distilled } \\ 2 / \end{gathered}$ | $\begin{gathered} \text { Destruc- } \\ \text { tively } \\ \text { distilled } 2 / \\ \hline \end{gathered}$ | Sulphate | Total |  |
| 1948: | ${ }^{\circ}$ |  |  |  |  |  |  |  |
| April. | 47,260 | 14,140 | 61, 4.00 | 47,480 | 670 | 46,880 | 95,030 | 156, 430 |
| May | 59,740 | 18,560 | 78,300 | 43, 250 | 500 | 44,350 | 88, 100 | 166,400 |
| June | 67, 740 | 12,860 | 80,600 | 38,070 | 370 | 42,730 | 81, 170 | 161, 770 |
| July | 73,400 | 15, 140 | 88,540 | 35,810 | 400 | 43, 380 | 79,590 | 168,130 |
| August | 82,580 | 10,820 | 93,400 | 33, 720 | 460 | 38,910 | 73, 090 | 166,490 |
| Septembe | 92, 730 | 17,220 | 109,950 | 33, 130 | 370 | 41,790 | 75,290 | 185, 240 |
| October | 97, 280 | 13,900 | 111, 180 | 33,690 | 340 | 43,880 | 77, 910 | 189,090 |
| November | 99,800 | 24,560 | 124, 360 | 36,680 | 380 | 47,080 | 84, 140 | 208, 500 |
| December | 102,390 | 28,920 | 131,310 | 43,540 | 360 | 46, 140 | 90,040 | 221,350 |
| January. | 103, 030 | 19,100 | 122, 130 | 48,840 | 410 | 47, 850 | 97, 100 | 219,230 |
| February | 97,970 | 13,420 | 111, 390 | 45,810 | 530 | 48, 220 | 94,560 | 205,950 |
| March.. | 89, 110 | 12,620 | 101, 730 | 47,490 | 750 | 52,630 | 100,870 | 202,600 |
| 1949: |  |  |  |  |  |  |  |  |
| April. | 71,260 | 29,530 | 100,790 | 45,930 | 790 | 51,630 | 98, 350 | 199,140 |
| May | 71,300 | 23,790 | 95,090 | 41,430 | 760 | 50, 050 | 92,240 | 187,330 |
| June | 81,910 | 19,490 | 101,400 | 34, 270 | 740 | 47, 720 | 82, 730 | 184, 130 |
| July | 95,470 | 23,880 | 119,350 | 28,640 | 610 | 45,900 | 75, 150 | 194, 500 |
| August | 106, 300 | 25,660 | 131,960 | 26, 320 | 510 | 41,260 | 68,090 | 200, 050 |
| September | 102, 720 | 26,690 | 129,410 | 22,810 | 940 | 36,220 | 59,970 | 189,380 |
| October. | 102,610 | 26,560 | 129, 170 | 22,110 | 800 | 28,650 | 51,560 | 180, 730 |
| November | 101, 760 | 26,930 | 128,690 | 26,210 | 690 | 27,000 | 53,900 | 182,590 |
| December | 105, 000 | 26,440 | 131,440 | 34,490 | 810 | 28,220 | 63,520 | 194,960 |
| January. | 100, 570 | 20, 130 | 120, 700 | 38, 130 | 820 | 30, 770 | 69,720 | 190,420 |
| February | 95, 370 | 16,520 | 111,890 | 36,790 | 720 | 31,940 | 69,450 | 181,340 |
| March | 85,410 | 10,690 | 96, 100 | 39,450 | 550 | 31,490 | 71,490 | 167,590 |
| 1950: |  |  |  |  |  |  |  |  |
| April. | 75, 180 | 17,620 | 92,800 | 43,940 | 710 | 34,280 | 78,930 | 171, 730 |
| May | 68,260 | 21,750 | 90,010 | 42, 320 | 1,000 | 33,740 | 77,060 | 167,070 |
| June | 51,740 | 34,030 | 85,770 | 37,490 | 1,090 | 31,790 | 70, 370 | 156, 140 |
| July | 39,580 | 33,760 | 73, 340 | 32,580 | 960 | 32,550 | 66,090 | 139, 430 |
| August | 18,510 | 47,700 | 66, 210 | 26,770 | 600 | 31,050 | 58,420 | 124,630 |
| September | 18,510 | 40,780 | 59,290 | 24,910 | 610 | 25,810 | 51, 330 | 110,620 |
| October | 16,490 | 36,520 | 53,010 | 25,580 | 660 | 26,430 | 52,670 | 105,680 |
| November | 16,490 | 35,980 | 52,470 | 28,610 | 580 | 28,840 | 58,030 | 110,500 |
| December | 16,490 | 26,960 | 43,450 | 38,900 | 610 | 31,140 | 70,650 | 114,100 |
| January. | 12,410 | 15,350 | 27,760 | 40,230 | 580 | 32,920 | 73,730 | 101,490 |
| February | 10,000 | 7, 850 | 17,850 | 46,300 | 640 | 33,300 | 80, 240 | 98,090 |
| March | 10,000 | 5,180 | 15,180 | 43,860 | 580 | 34,680 | 79, 120 | 94,300 |


| 1951: |
| :---: |
| April. |
| May |
| June |
| July |
| August |
| September |
| October |
| November |
| December |
| January . |
| February. |
| March |


| 10,000 | 7,530 | 17,530 | 51,210 | 500 |
| ---: | ---: | ---: | ---: | ---: |
| 10,000 | 12,730 | 22,730 | 54,160 | 680 |
| 10,000 | 24,360 | 34,360 | 51,220 | 750 |
| 10,550 | 25,790 | 36,340 | 51,940 | 920 |
| 13,890 | 33,520 | 47,410 | 49,850 | 450 |
| 13,960 | 41,630 | 55,590 | 48,240 | 610 |
| 10,530 | 36,890 | 47,420 | 49,590 | 470 |
| 10,420 | 32,140 | 42,560 | 55,080 | 710 |
| 10,520 | 34,100 | 44,620 | 60,730 | 830 |
| 10,500 | 32,560 | 43,060 | 68,880 | 800 |
| 10,500 | 27,410 | 37,910 | 72,580 | 590 |
| 10,650 | 21,300 | 31,950 | 76,010 | 630 |


| 33,020 | 84,730 |
| ---: | ---: |
| 31,410 | 86,250 |
| 34,570 | 86,540 |
| 34,170 | 87,030 |
| 33,500 | 83,800 |
| 38,080 | 86,930 |
| 38,220 | 88,280 |
| 43,870 | 99,660 |
| 43,900 | 105,460 |
| 48,430 | 118,110 |
| 55,070 | 128,240 |
| 48,260 | 124,900 |

See footnotes at end of table, page 29.

Table 15.--Turpentine stocks, by months, 1943-1954--Continued
(Barrels of 50 gallons)

| End of month | Gum |  |  | Wood |  |  |  | Total gum and wood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Controlled } \\ \text { by } \\ \text { CCC } 1 / \\ \hline \end{gathered}$ | Other | Total | $\begin{gathered} \hline \text { Steam } \\ \text { distilled } \\ 2 / \\ \hline \end{gathered}$ | Destructively distilled $2 /$ | Sulphate | Total |  |
| 1952: |  |  |  |  |  |  |  |  |
| April. | 13,760 | 17,870 | 31,630 | '73,260 | 630 | 47,810 | 121,700 | 153,330 |
| May . . . . . . | 19,540 | 18,400 | 37,940 | 71, 780 | 470 | 50,210 | 122,460 | 160,400 |
| June | 24,620 | 23,220 | 47, 840 | 66,660 | 520 | 48,690 | 115,870 | 163,710 |
| July . . . . . . | 31,290 | 29,940 | 61,230 | 68,990 | 390 | 44, 180 | 113,560 | 174,790 |
| August..... | 37, 700 | 21,970 | 59,670 | 69,000 | 330 | 46, 220 | 115,550 | 175, 220 |
| September.. | 44, 110 | 18, 030 | 62, 140 | 70,000 | 350 | 48,280 | 118,630 | 180, 770 |
| October .... | 46, 130 | 17,870 | 64,000 | 71,280 | 470 | 49,550 | 121,300 | 185,300 |
| November | 47,570 | 20,890 | 68,460 | 76, 020 | 360 | 52,290 | 128,670 | 197, 130 |
| December | 51, 720 | 20,770 | 72,490 | 82, 230 | 330 | 55,540 | 138,100 | 210,590 |
| January. | 51, 220 | 16,380 | 67,600 | 83,670 | 350 | 58,810 | 143,830 | 211,430 |
| February. | 49, 790 | 12,340 | 62,130 | 84, 110 | 370 | 56,960 | 141,440 | 203,570 |
| March. . . | 44,540 | 9, 250 | 53,790 | 83,030 | 580 | 54,220 | 137,830 | 191,620 |
| 1953: |  |  |  |  |  |  |  |  |
| April. . . . . . | 43,800 | 9, 740 | 53,540 | 75,640 | 630 | 50,960 | 127,230 | 180,770 |
| May. . . . . . . | 44, 150 | 15,880 | 60,030 | 73,960 | 380 | 50, 780 | 125, 120 | 185,150 |
| June . . . . . . | 47,830 | 19,000 | 66,830 | 71,340 | 520 | 45,090 | 116,950 | 183,780 |
| July. . . . . . . | 56,880 | 17,940 | 74, 820 | 67,840 | 530 | 37,790 | 106, 160 | 180,980 |
| August..... | 64,250 | 17,090 | 81, 340 | 66,640 | 450 | 31,280 | 98,370 | 179,710 |
| September. . | 67,990 | 14,550 | 82,540 | 64,010 | 560 | 31,880 | 96,450 | 178,990 |
| October.... | 69,670 | 13,510 | 83, 180 | 64,300 | 600 | 36,330 | 101,230 | 184,410 |
| November. . | 66,440 | 16,740 | 83, 180 | 62,920 | 500 | 38, 030 | 101,450 | 184,630 |
| December.. | 67,020 | 17,380 | 84,400 | 66,590 | 610 | 32,090 | 99,290 | 183,690 |
| January.... | 67,400 | 11,300 | 78, 700 | 68,660 | 660 | 32, 240 | 101,560 | 180, 260 |
| February.. | 62, 620 | 11, 160 | 73, 780 | 66,830 | 470 | 35, 080 | 102,380 | 176, 160 |
| March. | 57,210 | 9, 340 | 66,550 | 62,980 | 420 | 32,990 | 96,390 | 162,940 |
| 1954: |  |  |  |  |  |  |  |  |
| April. | 57,620 | 11,260 | 68,880 | 62,550 | 300 | 33,690 | 96,540 | 165,420 |
| May. | 57,620 | 12,350. | 69,970 | 59,080 | 280 | 24,930 | 84, 290 | 154,260 |
| June. . | 57,620 | 19,320 | 76,940 | 54,050 | 360 | 23, 040 | 77,450 | 154,390 |
| July... | 60,300 | 20, 220 | 80,520 | 50, 220 | 340 | 21,040 | 71,600 | 152,120 |
| August . . . . | 65,940 | 17,330 | 83, 270 | 43, 770 | 310 | 17,230 | 61,310 | 144, 580 |
| September... | 68,210 | 19,750 | 87, 960 | 44,640 | 350 | 14, 220 | 59,210 | 147, 170 |
| October. | 68,020 | 20,500 | 88,520 | 45,690 | 350 | 18,880 | 64,920 | 153,440 |
| November. | 68,290 | 20,320 | 88,610 | 49,380 | 380 | 18,460 | 68,220 | 156,830 |
|  | 57,470 | 23,610 | 81,080 | 49,830 | 400 | 20,370 | 70,600 | 151,680 |
| January.. | 57,470 | 18,590 | 76, 060 | 53,380 | 560 | 20,310 | 74, 250 | 150,310 |
| February... | 55,830 | 15,420 | 71, 250 | 55,340 | 620 | 22,900 | 78, 860 | 150,110 |
| March...... | 53,540 | 9,650 | 63,190 | 56,960 | 630 | 22,920 | 80,510 | 143,700 |

Stocks at larger producing centers and at yards and concentration points in the South, regardless of ownership; not necessarily stocks available for sale.

1/ All processed stocks controlled by the Commodity Credit Corporation.
2/ Includes consigned stocks.

Table 16.--Rosin production and stocks, by months, 1948-1954
(Drums of 520 pounds net)


See footnotes at end of table, page 31.

Table 16. --Rosin production and stocks, by months, 1948-1954--Continued
(Drums of 520 pounds net)

| Crop year and month | Production |  |  | Stocks end of month 1/ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gum at central stills | Wood-steamdistilled | Totalgum andwood | Gum |  |  | Wood-steamdistilled $3 /$ |  |
|  |  |  |  | Controlled by CCC $2 /$ | Other | Total di |  |  |
| 1952: |  |  |  |  |  |  |  |  |
| April. | 44,660 | 101, 550 | 146, 210 | 333,460 | 100, 020 | 433,480 | 0 219,370 | 652,850 |
| May | 70,580 | 98,670 | 169,250 | 361,580 | 110,070 | 471,650 | 0 222,780 | 694,430 |
| June | 76,010 | 80, 850 | 156,860 | 398,560 | 111,940 | 510,500 | 0 219,360 | 729,860 |
| July | 88, 010 | 76, 840 | 164,850 | 459, 000 | 101, 170 | 560, 170 | 0 217,540 | 777,710 |
| August | 72,430 | 81, 300 | 153,730 | 490, 230 | 103,710 | 593,940 | - 212,100 | 806,040 |
| September. | 60,690 | 86, 840 | 147,530 | 521,820 | 98,510 | 620,330 | 197,680 | 818,010 |
| October | 54,960 | 91,570 | 146,530 | 547, 880 | 89, 150 | 637,030 | 187,190 | 824, 220 |
| November | 57,410 | 92,620 | 150, 030 | 576, 150 | 86,500 | 662,650 | 0 182,990 | 845,640 |
| December. | 49, 170 | 94, 240 | 143,410 | 611,750 | 69,610 | 681,360 | 183,880 | 865,240 |
| January. | 18,680 | 95,700 | 114,380 | 614,390 | 49,040 | 663,430 | 1 175,580 | 839,010 |
| February . | 11,940 | 85, 300 | 97, 240 | 608,870 | 42,920 | 651, 790 | 0 170,200 | 821,990 |
| March. . | 19,110 | 97,050 | 116,160 | 604,470 | 28,920 | 633,390 | 0 157,420 | 790,810 |
| Crop year... | 623,650 | 1,082,530 | 1,706,180 |  |  | --- |  |  |
| 1953: |  |  |  |  |  |  |  |  |
| April. | 35,930 | 101, 300 | 137,230 | 604,680 | 28,870 | 633,550 | 0 153,500 | 787,050 |
| May | 55, 140 | 95,990 | 151,130 | 613,800 | 42, 880 | 656,680 | 140,520 | 797, 200 |
| June | 71,320 | 90,960 | 162, 280 | 633,180 | 52,000 | 685,180 | 132,280 | 817,460 |
| July | 67,400 | 92,900 | 160,300 | 669,230 | 42,810 | 712,040 | 0 121,410 | 833, 450 |
| August. | 59,260 | 98,710 | 157,970 | 693,300 | 42, 770 | 736,070 | 1112,020 | 848,090 |
| September. | 51, 100 | 104, 000 | 155, 100 | 698, 130 | 46,760 | 744,890 | 0 108,980 | 853, 870 |
| October. | 45,910 | 108, 220 | 154, 130 | 694,620 | 55, 030 | 749,650 | 105,430 | 855, 080 |
| November. | 49,830 | 107,450 | 157, 280 | 682,080 | 74,470 | 756,550 | 0 94,680 | 851, 230 |
| December. | 42,570 | 101, 070 | 143, 640 | 683,700 | 79, 280 | 762,980 | 0 92,310 | 855,290 |
| January.. | 20,510 | 107, 770 | 128,280 | 679,910 | 63,590 | 743,500 | 0 83,960 | 827,460 |
| February . | 13,810 | 102,440 | 116,250 | 677,090 | 40,910 | 718,000 | -79,980 | 797,980 |
| March. | 14, 740 | 102,530 | 117,270 | 672,890 | 26,410 | 699,300 | -75,590 | 774, 890 |
| Crop year... | 527,520 | 1,213,340 | 1,740,860 |  | --- | --- | - |  |


| 1954: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| April. | 43,270 | 103,290 | 146,560 | 671,200 | 32,310 | 703,510 | 77,960 | 781,470 |
| May. | 48,480 | 107, 120 | 155,600 | 670,980 | 39, 750 | 710,730 | 70,670 | 781,400 |
| June. | 70, 720 | 106, 300 | 177, 020 | 671,930 | 63,510 | 735,440 | 65,510 | 800,950 |
| July. | 70,630 | 110,650 | 181,280 | 686,280 | 75,810 | 762,090 | 68,400 | 830,490 |
| August | 65,460 | 109, 240 | 174, 700 | 705, 240 | 75, 830 | 781, 070 | 65, 060 | 846, 130 |
| September. | 58, 180 | 111,420 | 169,600 | 707,820 | 75,600 | 783,420 | 62,450 | 845,870 |
| October | 48,600 | 112,130 | 160, 730 | 696,710 | 80,680 | 777, 390 | 58,460 | 835, 850 |
| November. | 45,500 | 114,800 | 160, 300 | 676,330 | 95,720 | 772,050 | 58, 220 | 830,270 |
| December. | 30,980 | 116, 780 | 147, 760 | 673,630 | 70, 180 | 743,810 | 67,820 | 811,630 |
| January. . | 17,700 | 118,260 | 135,960 | 672,120 | 51, 240 | 723,360 | 73,910 | 797,270 |
| February. | 11,650 | 115,280 | 126,930 | 666,630 | 31,470 | 698, 100 | 71,250 | 769,350 |
| March. | 14,940 | 117, 100 | 132,040 | 656, 140 | 19,270 | 675,410 | 74, 100 | 749,510 |
| Crop year | 526,110 | , 342, 370 | 1,868,480 | --- | --- | --- | --- |  |

[^2]Table 17. - Crude pine gum commercial price received by producers and parity price, by months, 1951-1954
(Dollars per standard barrel)

| Month | Average price delivered at central stills |  |  |  | Mid-month parity price |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 | 1954 | 1951 | 1952 | 1953 | 1954 |
| April. .... | 34.30 | 24.90 | 25.00 | 25.20 | 28.30 | 29.50 | 27.90 | 28.30 |
| May...... | 33.00 | 24.70 | 25.30 | 25.50 | 28.20 | 29.50 | 27.90 | 28.40 |
| June. | 33.10 | 25.10 | 25.00 | 25.60 | 28.30 | 29.20 | 27.50 | 28.20 |
| July...... | 29.60 | 25.00 | 24.80 | 25.20 | 28.20 | 29.20 | 27.80 | 28.00 |
| August.... | 29.50 | 25.00 | 25.00 | 25.30 | 28.20 | 29.30 | 27.80 | 28.20 |
| September. | 30.80 | 25.30 | 25.10 | 25.40 | 28.20 | 29.00 | 27. 70 | 28.00 |
| October... | 32.40 | 24.80 | 24.60 | 24.60 | 28.30 | 28.80 | 27.60 | 27.90 |
| November. | 29.10 | 23.20 | 23.90 | 23.80 | 28.40 | 28.70 | 27. 70 | 27.90 |
| December. | 25.90 | 21.90 | 23.50 | 23.90 | 28. 40 | 28. 70 | 27. 80 | 27.90 |
| January... | 25.70 | 22. 70 | 23.20 | 24. 10 | 29.30 | 28.20 | 28.20 | 28.10 |
| February. . | 25. 10 | 23.40 | 23.90 | 24.40 | 29.40 | 28.00 | 28.20 | 28. 10 |
| March. ... | 25. 10 | 24.60 | 24.80 | 26.40 | 29.40 | 28.10 | 28.30 | 28.20 |
| Season average... | 30.50 | 24.50 | 24.60 | 25.00 | --- | - | --- | --- |


[^0]:    See footnotes at end of table, page 8.

[^1]:    * ester gum and synthetic resins included in paint, varnish and lacquer until 1935

[^2]:    $1 /$ Stocks at larger producing centers and at yards and concentration points in the South, regard-
    less of ownership; not necessarily stocks available for sale.
    2/ All processed stocks controlled by the Commodity Credit Corporation.
    3/ Includes consigned stocks.

