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October 1966.

TOBACCO MARKETING

By J. W. H. Brown
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INTRODUCTION

Tobacco has been a leading cash crop in the United States since the early 17th century. Production was started on a commercial scale in Virginia and has continued to be concentrated in the Southeastern States where over 90 percent of the present U.S. crop is grown.

About 95 percent of the tobacco grown in the United States is sold through "looseleaf" auction warehouses. There has been little or no change in the physical appearance of the auction warehouses since they were introduced in Danville, Va., more than a century ago. However, there has been change in the organization and structure of the tobacco marketing system.

Presently, the marketing season for cigarette tobaccos, which represent over 80 percent of tobacco production, begins in July with the opening of the Georgia-Florida flue-cured markets. The flue-cured sales progress from South to North through South Carolina, North Carolina, and Virginia. The more northern markets in North Carolina and Virginia close by the end of November or the first of December. Burley markets begin as the flue-cured markets are closing, or slightly before, and continue through January with some markets operating into February. Maryland markets begin selling the previous year's crop in April and close in July.

The length of the marketing season has been gradually reduced over the past 30 years. Table 1 illustrates earlier opening dates for the flue-cured belts from 1934 through 1938 and from 1961 through 1965. Earlier opening dates coupled with earlier closing dates have significantly reduced the marketing season.

Several factors have contributed to the speedup of the marketing process. Farmers now tend to separate their tobacco into fewer lots or grades, thus reducing the sorting time. The extension of electricity into most rural areas has made it possible for farmers to lengthen the normal work day beyond the daylight hours. Improved roads and trucks have enabled tobacco producers to deliver heavier loads of tobacco to market, thus reducing the number of trips required to market a particular crop.

The main deviation from the traditional auction warehouse that has occurred in recent years is the introduction of artificially lighted sales floors in the burley belts. Traditional warehouses are illuminated by natural light passing through skylights in the warehouse roof. The main advantage of artificial light is elimination of the variations in natural light that occur from day to day. Disadvantages include high cost of original installation and maintenance as well as problems involved in providing uniform illumination throughout all warehouses.

The number of auction warehouses available to receive and sell a farmer's crop of tobacco has expanded rapidly. At the close of World War II, 741 tobacco auction warehouses were operating in the United States. In 1964, over 950 warehouses were available to market the U.S. tobacco production.^{1/} The number of

^{1/} U.S. Department of Agriculture. Annual Report on Tobacco Statistics. Consumer and Mktg. Serv., 1945-64.



Maryland auction market. Buyers on right are giving bids to auctioneer by hand signal.

warehouses is not a true indication of a market's ability to receive and sell tobacco because warehouse sizes vary considerably. Newer auction warehouses are generally larger than the average warehouses used during the 1940's.

Allocation of sales time and schedules, one of the greatest forces in the expansion of auction warehouse facilities, is performed by the local Tobacco Board of Trade or by an association composed of warehouse owners. The most common method of allocating sales time has been the application of various formulas in which floor space is the dominant factor. Expansion of floor space has resulted in increased revenue for warehouses and increased sales time. Nevertheless, most warehouses are used only for short periods during the year. The expanded warehouses use only a small portion of their floor space except during the tobacco marketing season, thereby increasing the fixed cost of auction warehouse operations.

It would be impractical for all warehouses to operate simultaneously for a full 8-hour day throughout the marketing season; facilities of the buying companies would be inadequate to handle such a large volume of tobacco. It would also be impractical for the companies to maintain enough buyers to cover all markets simultaneously. To alleviate this problem and to enable buying companies to cover most of the markets, sales are staggered and buyers move to two or more auctions in a day. This procedure also provides for more efficient use of Federal tobacco graders.

PRODUCTION CHANGES WHICH AFFECT MARKETING

Tobacco production has experienced numerous technological advances in the

Table 1.--Market opening dates for flue-cured tobacco markets,
by types, 1934-38 and 1961-65

Type and year	Opening date	Type and year	Opening date
<u>Type 14:</u>		<u>Type 14:</u>	
1934	August 1	1961	July 27
1935	August 1	1962	July 26
1936	August 4	1963	July 25
1937	July 29	1964	August 29
1938	July 28	1965	August 28
<u>Type 13:</u>		<u>Type 13:</u>	
1934	August 9	1961	August 3
1935	August 8	1962	August 2
1936	August 13	1963	August 1
1937	August 10	1964	August 6
1938	August 4	1965	August 5
<u>Type 12:</u>		<u>Type 12:</u>	
1934	August 23	1961	August 22
1935	August 26	1962	August 21
1936	September 1	1963	August 22
1937	August 26	1964	August 27
1938	August 25	1965	August 25
<u>Type 11b:</u>		<u>Type 11b:</u>	
1934	September 13	1961	August 31
1935	September 17	1962	August 30
1936	September 22	1963	September 9
1937	September 16	1964	September 10
1938	September 13	1965	September 8
<u>Type 11a:</u>		<u>Type 11a:</u>	
1934	September 25	1961	September 12
1935	October 1	1962	September 10
1936	October 5	1963	September 23
1937	September 30	1964	September 24
1938	September 27	1965	September 20

past 20 years which have affected the marketing system either directly or indirectly.

Production has traditionally been characterized by small plots and extensive use of hand labor. Acreage and average size of the production unit have been trending downward since reaching a peak during World War II. In recent years, yield per acre has been increasing at a rate sufficient to raise the present level of production very close to that attained during the years of peak acreages (table 2).

Approximately 88 percent of U.S. tobacco falls into the flue-cured and burley types. In 1964, the average flue-cured allotment of 3.22 acres was about triple the average size of the burley allotment. Burley and flue-cured allotments have followed the same general pattern for the past 25 years, increasing during World War II and then decreasing to slightly smaller acreages than the prewar average. Flue-cured types reached an average of 6.24 acres in 1946 before beginning their downward trend. Burley allotments reached a peak of 2.3 acres in 1944 and then began declining to a point slightly below the 1964 average of 1.06 acres per allotment. 2/

Increased yield per acre is the result of several factors. Acreage control has no doubt exerted some influence. Growers have sought ways of increasing production on their allotted acreage, and so have been anxious to adopt new practices. These practices include fertilization at higher rates, use of higher yielding varieties, higher topping, closer spacing, and more careful saving of lower leaves. 3/

The rapid increases in yield per acre have also created some detrimental effects. Changes in cultural practices, coupled with introduction of certain new varieties, have produced a substantial quantity of tobacco lacking qualities--especially "flavor," "body," and "aroma"--important to cigarette manufacturers. This problem of quality has been especially acute in areas producing flue-cured tobacco. Table 3 illustrates the deterioration in quality that flue-cured tobacco underwent between 1946 and 1964. The table shows that in the later years Federal tobacco inspectors graded a smaller percentage of flue-cured tobacco in the first, second, and third grades, and a larger percentage in the fourth, fifth, and sixth.

The flue-cured Tobacco Stabilization Corporation (through which the price-support mechanism operates) received so much undesirable tobacco that in 1957 it was necessary to reduce price supports on certain varieties of flue-cured tobacco by 50 percent. 4/ Because excessive supplies have continued to accumulate in Commodity Credit Corporation stocks, a program of acreage-poundage supply control was initiated in 1965 for flue-cured tobacco. Under this program, a poundage quota was established for each farm in addition to an acreage allotment. A preliminary appraisal of the program indicates that it has been successful in reducing the amount of tobacco going under loan, and in raising the quality of tobacco offered for sale. The acreage-poundage program was approved by a vote of the growers (by two-thirds or more) in the flue-cured belts.

2/ U. S. Department of Agriculture. Annual Report on Tobacco Statistics, 1964. Consumer and Mktg. Serv., Statis. Bul. 356, Apr. 1965.

3/ North Carolina State College and State Department of Agriculture. Factors Pertaining to Opening Dates of Flue-Cured Tobacco Markets. A Committee Report. Raleigh, N. C., 1955.

4/ U. S. Department of Agriculture. Identification of Certain Flue-Cured Tobacco Varieties Under the Price Support Program. Commodity Stabil. Serv., 1957.

Table 2.--Acreage, yield per acre, production, and crop value for U.S. tobacco, based on 5-year averages, 1934-38 to 1959-63, and 1964

Crop year	Acreage	Yield per acre	Production	Crop value
	Thou. acres	Lb.	Mil. lb.	Mil. dol.
1934-38.....	1,501,060	862	1,294,197	265,684
1939-43.....	1,509,900	982	1,483,342	389,136
1944-48.....	1,786,940	1,158	2,068,511	916,841
1949-53.....	1,681,000	1,266	2,128,907	1,069,034
1954-58.....	1,344,980	1,489	2,003,051	1,091,426
1959-63.....	1,173,400	1,783	2,091,751	1,252,318
1964.....	1,079,400	2,071	2,235,768	1,351,728

Table 3.--Percentage of sales by quality for all flue-cured tobacco, types 11-14, 1946-65 crops

Crop year	1	2	3	4	5	6	N	Miscel- laneous
	Choice	Fine	Good	Fair	Low	Common	Nonde- script	
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
Av. 1946-50.....	1.5	7.0	22.6	29.9	23.1	9.2	5.8	.9
Av. 1951-55.....	.4	3.5	17.1	30.7	28.9	11.8	7.2	.4
Av. 1956-60.....	.1	1.5	12.8	30.7	33.8	11.7	9.1	.3
1961.....	.1	1.9	15.9	33.0	32.4	8.5	7.7	.5
1962.....	1/	.8	9.5	33.2	37.0	8.9	10.2	.4
1963.....	1/	.4	9.6	36.0	29.3	9.9	13.7	1.1
1964.....	1/	.2	6.6	34.8	32.5	9.8	14.4	1.7
1965.....	1/	.3	7.7	41.0	32.6	8.2	8.5	1.7

1/ Less than 0.1 percent.

Mechanization has not been rapid in tobacco production. Development of chemical weed control in plant beds and chemical sucker control in the field has provided the greatest reduction in labor requirements for growing tobacco in recent years.

Most producers of flue-cured tobacco have converted from wood to petroleum fuels. This shift has lowered labor requirements. The reduction, however, is rather small when total labor requirements are considered. Curing flue-cured tobacco by means of the bulk curing method, instead of by the conventional curing barn, allows some substitution of capital input for labor. Recent studies show that the bulk curing method requires 30 percent less labor than conventional methods. 5/ Although bulk

5/ North Carolina State University. Harvesting and Curing Flue-cured Tobacco with Automatic Typing Machines, Bulk Curing and the Conventional Methods: Labor Requirements, Costs and Prices Received. A. E. Inform. Ser. No. 123, Raleigh, N. C., Aug. 1965.

curing is gaining acceptance by buyers as well as producers throughout the flue-cured belts, the proportion of total production cured by this method is still relatively small.

Mechanical tobacco harvesters, which can reduce labor requirements considerably, are being developed for flue-cured and burley tobacco. However, the cost and size of these harvesters, at their present stage of development, make them uneconomical except on the largest acreages.

Prior to 1962, all burley and flue-cured tobacco, with the exception of type 14 (flue-cured), was tied into hands consisting of 20 to 25 leaves before passing through the auction system. Changes in the price-support system in 1962 allowed price-supported sales of certain lower stalk position grades in the untied form for the first 5 marketing days in type 11 through type 13 belts. Since 1963, the time limit on untied flue-cured sales in this area has been extended to 7 marketing days. Untied sales have traditionally been supported at lower rates than tied tobacco. In 1965, the differential between tied and untied price supports was 3 cents per pound. From 1961 through 1964, there was a differential of 6 cents per pound in favor of tied tobacco. Before 1961, the differential had been 5 cents per pound for a number of years. Even though price supports are less for untied tobacco, the volume sold untied has increased significantly since 1962. Tying tobacco for market requires an average of about 100 hours of labor per acre. Therefore, farmers with a shortage of labor usually prefer to sell as much untied tobacco as possible within the limits set forth.

CHANGES IN MARKET STRUCTURE AND PRACTICES

Processing

The condition of tobacco as it leaves the auction market is not suitable for cigarette manufacture until further processing and aging occur. Processing involves removal of objectionable stems and reduction and stabilization of moisture content. Aging allows further chemical changes which improve aroma and taste while reducing bitterness.

A tobacco leaf contains some veins and a midrib which must be removed because they are too large for direct incorporation into cigarettes. This stemming operation can be done before or after aging. However, development and improvement of a system of threshing the midrib and large veins from the leaf make stemming desirable before storage rather than after. Threshing increases the speed of stemming and reduces the storage space required for aging the tobacco by about 20 percent. 6/

The major effect of the change to threshing is a concentration of processing facilities. Investment costs for a threshing system are higher than for older methods of stemming. These higher investment costs, coupled with higher capacity and more rapid transportation systems, are causing a shift to fewer and larger plants.

Cigarette Manufacturing

The cigarette manufacturing industry is very highly concentrated. In 1958, a total of 19 establishments owned by 12 firms manufactured cigarettes. An estimated

6/ U. S. Department of Agriculture. A Study of the Feasibility of Removing the Present Geographic Limitation on Untied Flue-Cured Tobacco. Agr. Stabil. and Conserv. Serv., Mar. 1962.

73 percent of the cigarette production was produced by the four largest firms and 99 percent by the six largest firms. The proportion produced by each of the leading firms has been estimated as follows: largest, 34 percent; 2d largest, 24 percent; 3d and 4th, about 11 percent each; and 5th and 6th, about 10 percent each. Some shifting of proportions among firms occurred between 1946 and 1962, but all were substantial producers throughout the period.

The present centralization in cigarette manufacturing does not represent a significant change from the historical pattern. However, some of the smaller producers in 1946 have since been absorbed by major producers.

Some cigarette manufacturers are important producers of tobacco products other than cigarettes. Recently, the industry has increased its output of nontobacco products, but at a slower rate than that of other types of manufacturers. The probable reason is the rapid expansion within the cigarette industry itself.

Cigarette production and consumption increased quite rapidly after World War II; between 1946 and 1965, cigarette sales increased by 53 percent. Product differentiation and brand advertising have had an important role in these gains. Twenty or so leading brands were on the market in 1946 and few were introduced between 1946 and 1952. But since 1952, one new brand has appeared each year on the average. The growing popularity of filter-tip and mentholated brands is responsible for much of this increase. In general, manufacturers now have at least one brand in each of the following categories: (1) Regular size nonfilter, (2) king size nonfilter, (3) king size filter tip, and (4) mentholated. Frequently, a single brand name is used for two or more of the above types.

Cigar Manufacturing

The number of firms producing cigars and scrap chewing tobacco has declined over the years and the volume of the larger firms has increased. Today seven firms produce about 70 percent of all cigars.

Two developments in the cigar industry are having significant effects on its structure. One development is the rapid extension of the production of short-filler cigars, i.e., those with the filler or body of the cigars in small pieces. The other is the use of the tobacco sheet for binders and for wrappers.

Manufacture of short-filler cigars began in the late 19th century. At first all operations, including the making of the filler, were performed by hand. Today one of the advantages of short-filler cigars is the labor saving made possible by the increased mechanization employed in their production.^{7/} Currently, stems are removed by threshing, the least expensive method of removal. Changing to short fillers enables other savings. For example, on the short-filler cigar machine the number of operators can be reduced to two, whereas four are needed on the long-filler machine. Production of short-filler cigars has increased rapidly in recent years; the proportion increased from about 50 percent to 90 percent between 1955 and 1961 (table 4).

A process for whole-leaf utilization or homogenization has made several technical advances possible. In this process, the entire tobacco leaf is ground into a fine

^{7/} The number of operators reported in the U. S. Dept. Labor, Bur. Labor Statis. BuI. 1317, p. 3, shows that hand cigarmakers declined from 3,074 in 1955 to 954 in 1961.

Table 4.--Number and percentage distribution of cigar machine operators and machines by number of positions per machine, 1955 and 1961 1/

Positions	1955				1961			
	Operators		Machines		Operators		Machines	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
	1/		1/		1/		1/	
4.....	8,403	64.3	2,100	47.4	834	11.2	208	3.8
3 2/.....	--	--	--	--	1,001	13.5	333	6.1
2.....	4,658	35.7	2,329	52.6	1,302	17.6	651	11.9
1 2/.....	--	--	--	--	4,279	57.7	4,279	78.2
Total.....	13,061	100.0	4,429	100.0	7,416	100.0	5,471	100.0

1/ Number of machines that could be operated if all operators were employed at the same time.

2/ The 3-position machine operators and the 1-position machine operators use tobacco sheets for the binders in cigars.

powder and adhesives are added. When this mixture is liquefied, it can be reconstituted into a continuous sheet of tobacco in the same manner paper is made.

Since 1955, when the homogenized sheet was first used, the amount of labor saved by changing from the long to the short filler has been even greater. The tobacco sheet is placed on the cigar automatically, thus replacing one of the operators on either the long- or the short-filler machine. By shifting from long filler and natural binder to short filler with a sheet binder, the number of cigar machine operators has been reduced from four to one.

One effect of the tobacco sheet on the tobacco industry is that less expensive tobacco can be used. Tobacco used for natural binders is usually high priced, because leaves for natural binders must be free of holes or serious defects and relatively thin and elastic. These characteristics are not necessary for production of the sheet.

Another effect of the tobacco sheet is that less tobacco can be grown to provide the binder for any given number of cigars. This saving results only in small part from the material added for adhesives. Primarily, the savings in tobacco come from use of all of the leaf, including stems, small particles, and other scrap recovered in handling tobacco and manufacturing cigars and scrap chewing. Whereas the grower sold 5 1/2 pounds of binders for 1,000 cigars, only 2 pounds of tobacco, at farm sales weight, are required for the sheet. To the extent that waste tobacco (not usable as filler or scrap chewing) goes into the sheet, the quantity of tobacco in terms of farm sales weight for cigars and scrap chewing is even less.

Use of the short-filler machine and tobacco sheet provide greater flexibility in blending tobacco. The smaller tobacco particles in the short filler make it possible to vary the proportion of different tobaccos to more exact specifications and to blend them more uniformly than when the long filler is used. These developments have made it easier for the cigar manufacturer to replace the Cuban tobacco embargoed in February 1962. Moreover, they have fostered a number of modifications of blends in brands and subbrands to attract different groups of consumers.

CONSUMPTION

Cigarette consumption has increased steadily for many years except for the moderate dip in the midfifties and 1964 when the possible relationship between cigarette smoking and health began receiving increased attention. There was a particularly sharp increase in cigarette consumption from 1950 to 1952, probably encouraged by the Korean conflict. From 1954 to 1965, cigarette consumption increased about 3 1/2 percent (table 5).

Two factors which may influence the future rate of consumption significantly are prices charged to consumers and the new Federal Cigarette Labeling and Advertising Act.

Prices to consumers rose in 22 States in 1965 because of increases in tax rates levied by these States. Other States and municipalities may also raise taxes in the near future. The Federal Cigarette Labeling and Advertising Act, which was passed July 1965, became effective January 1, 1966. This legislation requires that cigarette packages bear the following statement: "Caution: Cigarette Smoking May Be Hazardous to Your Health." There is no way of knowing the initial or long-run effect of the law at this time.

Consumption of cigars and cigarillos per male 18 years and over in 1965 is estimated to be about 148, which is about 4 percent below the 1964 level. The 1964 and 1965 rates of consumption were the highest since 1925-29 (table 6). The sharp increase in 1964 followed the release of the report on smoking and health (Smoking and Health Report of the Advisory Committee to the Surgeon General of the Public Health Service) which was less critical of cigars than cigarettes.

Consumption of smoking tobacco has been declining steadily since the 1930's with the exception of 1964 which had the largest per capita (per male 18 years and over) consumption in a decade (table 6). The sharp increase in 1964 followed the publication of the smoking and health report which was less critical of pipe smoking. The preliminary estimate of 1965 consumption indicates a 12-percent drop from 1964, but still above 1962 and 1963.

Consumption of chewing tobacco is estimated to have declined in 1965 after remaining steady for 2 years. This decline follows a long-term trend.

Consumption of snuff has also been trending downward for many years. Per capita consumption by persons 18 years and over in 1965 is estimated as only approximately one-half of that in the early thirties (table 6).

MARKETING BILL FOR CIGARETTES

Total expenditures for tobacco products have risen continuously since World War II except in 1954. The total retail value of tobacco products consumed domestically rose from about \$3.5 billion in 1946 to nearly \$8.6 billion in 1965 (fig. 1). This increase was associated with a gradual upward trend in both consumption and prices. Cigarette consumption increased from 322 billion in 1946 to an estimated 520 billion in 1965. Purchases of cigarettes now account for about 88 percent of all consumer expenditures for tobacco products. On the other hand, there was a decline in the use of smoking tobacco, chewing tobacco, and snuff, all of which were minor items. Average retail prices of cigarettes increased 10 cents or more per pack during the period; average prices of all other tobacco products also increased. The trend

Table 5---Cigarettes and all tobacco products: Consumption per capita, 18 years and over (including overseas forces), and indexes, 1925-65

Year	Cigarettes 1/		All tobacco products 1/		Cigarettes		All tobacco products	
	Number	Pounds	Pounds	Number	Pounds	Pounds		
	----(Indexes--1957-59=100)----							
1925.....	1,085	3.10	9.66	28	33	83		
1926.....	1,191	3.23	9.62	30	34	83		
1927.....	1,279	3.65	9.69	33	39	83		
1928.....	1,366	3.75	9.58	35	40	82		
1929.....	1,504	4.08	9.85	38	44	85		
.....								
1930.....	1,485	4.21	9.66	38	45	83		
1931.....	1,399	3.99	9.23	36	43	79		
1932.....	1,245	3.42	8.23	32	37	71		
1933.....	1,334	3.51	8.17	34	37	70		
1934.....	1,483	3.95	8.72	38	42	75		
1935.....	1,564	4.22	8.67	40	45	75		
1936.....	1,754	4.77	9.33	45	51	80		
1937.....	1,847	5.01	9.50	47	54	82		
1938.....	1,830	4.92	9.25	47	53	80		
1939.....	1,900	5.15	9.35	48	55	80		
.....								
1940.....	1,976	5.35	9.62	50	57	83		
1941.....	2,236	6.08	10.22	57	65	88		
1942.....	2,585	7.27	11.23	66	78	97		
1943.....	2,956	8.04	11.78	75	86	101		
1944.....	3,039	8.12	11.53	77	87	99		
1945.....	3,449	9.48	13.02	88	101	112		
1946.....	3,446	9.43	12.58	88	101	108		
1947.....	3,416	9.12	12.11	87	97	104		
1948.....	3,505	9.42	12.36	89	101	106		
1949.....	3,480	9.45	12.22	89	101	105		
.....								
1950.....	3,522	9.54	12.29	90	102	106		
1951.....	3,744	9.94	12.60	95	106	108		
1952.....	3,886	10.44	13.11	99	112	113		
1953.....	3,778	10.37	12.95	96	111	111		
1954.....	3,546	9.59	12.12	90	102	104		
1955.....	3,597	9.49	11.99	92	101	103		
1956.....	3,650	9.35	11.65	93	100	100		
1957.....	3,755	9.21	11.44	96	98	98		
1958.....	3,953	9.46	11.73	101	101	101		
1959.....	4,073	9.44	11.73	104	101	101		
.....								
1960.....	4,172	9.64	11.82	106	103	102		
1961.....	4,266	9.84	12.00	109	105	103		
1962.....	4,265	9.69	11.80	109	103	102		
1963.....	4,345	9.70	11.78	111	104	101		
1964.....	4,196	9.16	11.48	107	98	99		
1965 2/.....	4,318	9.42	11.60	110	101	100		
.....								

1/ Weight represents the unstemmed processing-weight equivalent of the tobacco.

2/ Preliminary estimate. Some previous years revised due to population revisions.

Table 6.--Consumption of cigars, smoking tobacco, and chewing tobacco per male, and snuff per person, 18 years and over, 5-year averages 1925-44, and annual 1945-65

Period	Consumption per male 18 years and over				: Per person 18 : years and over
	Large cigars and cigarillos 1/		Smoking tobacco 1/	Chewing tobacco 1/	
	Number	Pounds	Pounds	Pounds	
Average:					
1925-29....:	177.4	4.10	4.15	5.03	.52
1930-34....:	125.2	2.96	4.40	3.15	.46
1935-39....:	120.9	2.89	4.39	2.48	.42
1940-44....:	118.9	2.87	3.67	2.34	.43
1945.....:	112.3	2.71	3.41	2.34	.44
1946.....:	120.4	2.93	2.12	2.21	.40
1947.....:	112.8	2.78	2.06	1.92	.39
1948.....:	113.7	2.80	2.09	1.85	.40
1949.....:	109.3	2.50	2.08	1.71	.40
1950.....:	107.8	2.53	2.03	1.67	.38
1951.....:	110.8	2.56	1.89	1.62	.37
1952.....:	115.1	2.72	1.80	1.58	.36
1953.....:	115.5	2.72	1.62	1.55	.36
1954.....:	112.8	2.64	1.55	1.48	.35
1955.....:	112.8	2.60	1.47	1.44	.35
1956.....:	110.8	2.41	1.30	1.36	.34
1957.....:	113.0	2.37	1.27	1.29	.32
1958.....:	117.3	2.45	1.37	1.23	.31
1959.....:	124.9	2.55	1.31	1.20	.29
1960.....:	124.7	2.42	1.30	1.13	.30
1961.....:	122.9	2.43	1.30	1.13	.29
1962.....:	121.9	2.40	1.24	1.10	.28
1963.....:	124.6	2.39	1.22	1.11	.27
1964.....:	154.4	2.69	1.42	1.11	.26
1965 2/.....:	147.9	2.60	1.25	1.06	.24

1/ Weight represents the unstemmed processing-weight equivalent of the tobacco.

2/ Preliminary estimate. Some previous years revised due to population revisions.

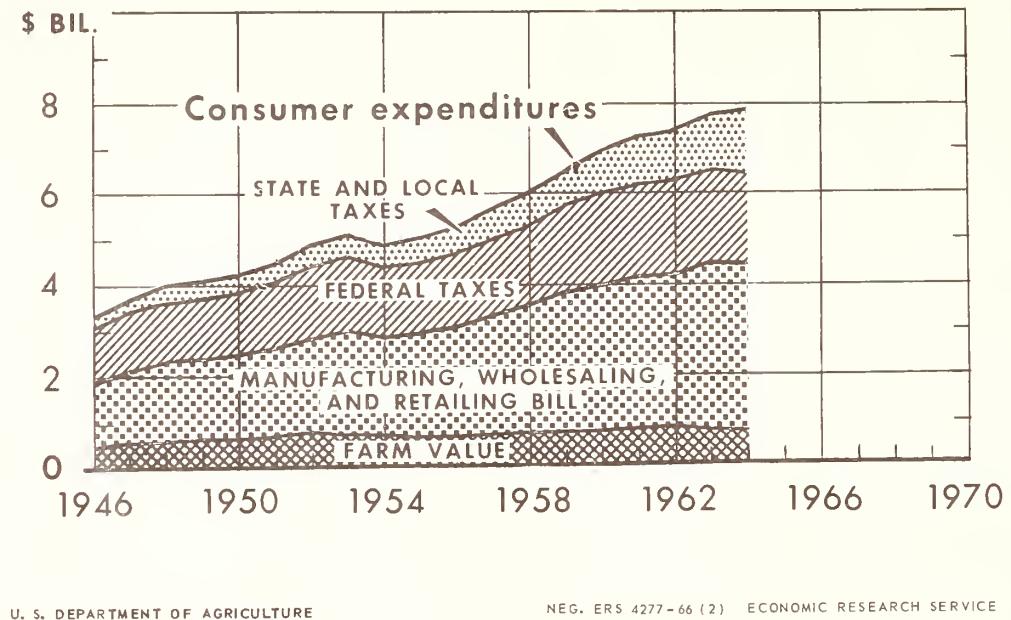
toward small cigar types and the relatively minor increases in tax rates for cigars, however, have tended to keep average cigar prices from increasing as fast as cigarette prices.

The marketing bill for tobacco products consists of charges for marketing services and excise and use taxes collected by Government agencies. In 1965, the total bill was \$7.8 billion compared with \$3.0 billion in 1946. The manufacturing and wholesaling-retailing bill rose from \$1.5 billion to \$3.9 billion between 1946 and 1964. Federal, State, and local taxes increased from \$1.4 to \$3.4 billion during the same period.

Tobacco growers did not share proportionately in the increased consumer expenditures. Total returns to farmers for tobacco used in tobacco products consumed domestically increased from about \$522 million in 1946 to slightly over \$772 million in 1964, or an increase of less than 50 percent. Although the prices farmers received per pound of tobacco increased by about 37 percent from 1946 to 1964, the

TOBACCO PRODUCTS

Consumer Expenditures, Marketing Bill, and Farm Value



U. S. DEPARTMENT OF AGRICULTURE

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Figure 1

farmer's share of domestic consumer expenditures declined from 15.0 to 9.6 percent. The increase in farm prices was not sufficient to offset the effect of other developments in the marketing of leaf tobacco in tobacco products.

The tendency of State and local governments to raise taxes on tobacco products, especially cigarettes, the popularity of filter-type cigarettes, and the development of homogenized tobacco have all widened the margin between consumer expenditures and returns to growers for tobacco. Taxes on cigarettes have been an important source of revenue for many years. In 1946, total taxes on cigarettes averaged about 50 percent of the retail value of cigarettes. Since then, the tax share has ranged between 40 and 50 percent of consumer expenditures. The Federal tax rate increased from 7 to 8 cents in 1951 and has remained unchanged to date. State and local tax rates, however, have increased much more rapidly.

Tobacco requirements in manufacturing cigarettes have been significantly reduced by the increased use of filter-tip brands and by the addition of homogenized leaf to the blend. On filter cigarettes, some of the tobacco is replaced by the filter itself. Homogenized leaf makes it possible to utilize small particles that would normally be lost as waste. In 1964, use of homogenized leaf alone allowed an estimated saving to cigarette manufacturers of over 300 million pounds of tobacco, or more than \$200 million. Payments to growers were necessarily reduced by this amount.

EXPORTS

Foreign markets have been important to the U.S. tobacco industry since its

very beginning. In recent years, about one-fourth of U.S. tobacco production has been moving into export markets in the form of either leaf tobacco or manufactured tobacco products (table 7). Nearly all U.S. tobaccos are exported in considerable quantities. Flue-cured types, however, represent by far the greatest volume of exports; normally, 30 to 40 percent of U.S. flue-cured production is exported.

Table 7---U. S. production and exports of tobacco for specified years

Year	Production	Exports
	<u>Mil. lb.</u>	<u>Mil. lb.</u>
1956.....	2,175,556	510,358
1959.....	1,796,071	465,613
1961.....	2,061,392	500,960
1962.....	2,314,751	468,874
1964.....	2,229,972	510,402
.....

The United States exported almost one-half of its tobacco production from 1923 to 1929. Exports declined during the thirties and early forties, that is, during the Depression and World War II. Exports began an upward trend after the War and in 1951 they again approached the 1923-29 level. Since 1951, exports have fluctuated from year to year and have not established any definite trend. During the same period, however, the U.S. proportion of Free World production has been steadily declining. The U.S. share of total Free World trade has likewise declined.

Many countries have sharply increased their output of tobacco in recent years. As a result, the total world supply of tobacco has increased and competition in world trade has thereby become even more severe.

Historically, there has been a strong preference for U.S. tobacco on the world market. This has been the result of quality rather than price since U.S. tobacco consistently sells for a premium in the world market. In recent years, however, the quality of tobacco in foreign countries has increased very rapidly, while production practices in the United States, designed to maximize yield per acre, have caused a drop in the quality of U.S. tobacco.

The program initiated in 1965 for flue-cured tobacco may well reverse the trend of quality deterioration in the major kind of tobacco exported by the United States. Even so, stronger foreign competition, trade restrictions in foreign countries desiring to purchase U.S. leaf, and preferential tariff arrangements now in existence in the United Kingdom and Western Europe make it doubtful that the United States can significantly increase its tobacco exports.

FUTURE PROSPECTS

Flue-cured tobacco experienced a very successful first-year operation of the acreage-poundage control program during the 1965 season. The acreage-poundage program is expected to continue for flue-cured tobacco. Although burley tobacco producers failed to cast the necessary two-thirds majority vote in favor of an acreage-poundage program in the March 1966 referendum, this program will continue to receive consideration.

The most common methods of allocating selling time among tobacco auction warehouses, whereby floor space is the prime factor, has been contested in court several times in recent years. There is indication that more flexible formulas for allocation of selling time will be developed in the future. The newer formulas will no doubt give added weight to past performance and less emphasis to floor space.

Cigarette consumption is expected to increase gradually, due mainly to continuing increase in the number of persons of smoking age. Factors that may influence cigarette consumption in the future are the cautionary health warnings now placed on each cigarette package, and prices to the consumer. Price increases have been significant in some States where taxes have been raised in recent months.

The continued rise in world cigarette consumption and favorable levels of economic activity in many overseas markets are favorable factors affecting tobacco exports. Also, the acreage-poundage program adopted for flue-cured tobacco has resulted in a significant improvement in quality. Offsetting the favorable factors affecting tobacco exports are the strong competition from foreign producing areas, and trade barriers imposed by importing countries.

SUMMARY

The two leading kinds of tobacco produced in the United States are flue-cured and burley tobacco, which together account for about 88 percent of the total U.S. output. The average size of the flue-cured production unit in 1964 was 3.22 acres or about triple the average burley production unit. Acreage allotment sizes reached a peak during the close of World War II and have been trending downward since then.

Yields of tobacco per acre have rapidly trended upward over the past 30 years, increasing from an average of 854 pounds per acre in 1934-38 to over 2,000 pounds in 1965. These increases are attributed to use of higher yielding varieties and changes in cultural practices. The high yields per acre in recent years have been blamed for a decrease in quality of the average crop. Corrective action has been taken by discounting undesirable varieties going under loan and by shifting production control from acreage only to acreage-poundage.

Tobacco production has traditionally required extensive amounts of hand labor. Mechanization has been much slower in tobacco than in most other field crops. For example, mechanical tobacco harvesters are being developed, but are not commercially used to any great extent. Once they are developed and accepted, mechanical harvesters will reduce labor requirements considerably. The limited extension of price supports on untied flue-cured tobacco in 1962 and 1963 made possible a reduction of about 100 hours per acre on that portion of the crop sold loose.

Practically all of the tobacco grown in the United States is sold through "loose-leaf" auction warehouses. These facilities have expanded rapidly since the close of World War II. In 1964, there were over 950 tobacco auction warehouses in use, an increase of over 200 since 1945. This increase in sales capacity, among other things, has reduced the length of the marketing season significantly.

Leaf stemming operations have shifted from the conventional method of stemming after the tobacco is aged to green threshing. This shift has made possible increased yields and has reduced the storage space required to age tobacco. It has also increased both capital investment requirements and capacity per plant; therefore, fewer and larger processing plants are becoming more common.

The cigarette manufacturing industry has been concentrated within a few firms for many years. It is estimated that 99 percent of the U.S. cigarette production comes from the six largest firms. Production and consumption have increased significantly in the past two decades. Between 1946 and 1965, cigarette sales increased by almost 60 percent. This increase in production and sales has also been accompanied by a shift to filter-tip cigarette production. In 1952, filter-tip cigarettes represented less than 2 percent of the total output of cigarettes; by 1965, filter-tip production had increased to over 60 percent of total output.

Two developments within the cigar industry during the past 10 years have exerted considerable influence on the structure of the tobacco industry. Probably the most significant of these was the development of the reconstituted tobacco sheet binder material. By reconstituting the binder, the farm-sales weight requirement can be reduced by over 50 percent. The second major change was the extension of production of short-filler cigars. The use of threshing machines in the production of these cigars instead of conventional stemmers, together with the use of reconstituted binders, provides a labor reduction at the cigar-making machine.

The form in which tobacco is consumed has changed considerably over the past 30 years. Per capita and total consumption of cigarettes has trended upward rather constantly. The general trend has been a shift from cigars, smoking tobacco, and snuff to cigarettes. Per capita tobacco consumption in all forms has remained fairly stable for the past 20 years.

Consumer expenditures for tobacco products have risen continuously since World War II with the exception of 1954. This reflects the shift to cigarettes (a more expensive form of tobacco than snuff and smoking and chewing tobacco) and the general increase in prices paid by consumers for all tobacco products.

In recent years, about one-fourth of U.S. tobacco production has moved into the export market. This is a smaller percentage than during 1923-29 when almost one-half of U.S. production went to foreign markets. The total pounds exported, however, have remained fairly constant for the past 10 years.



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