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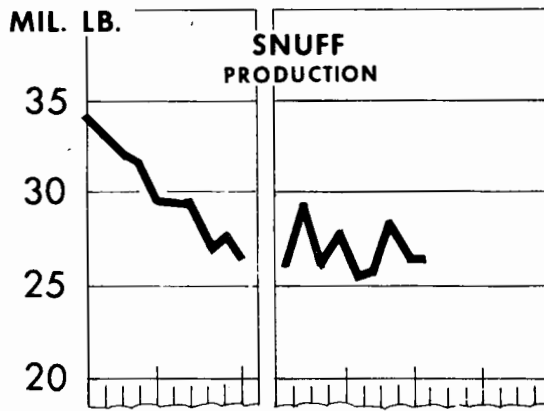
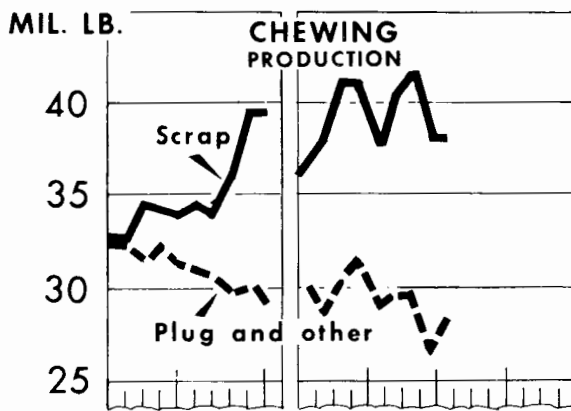
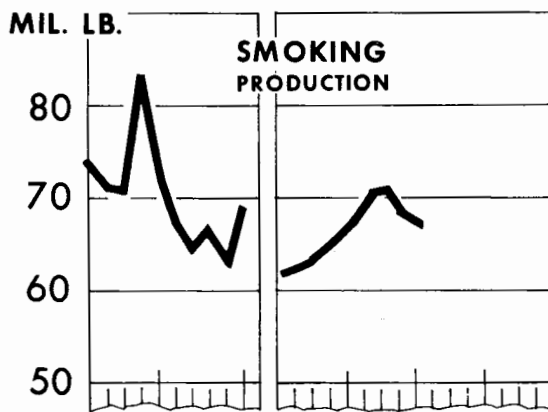
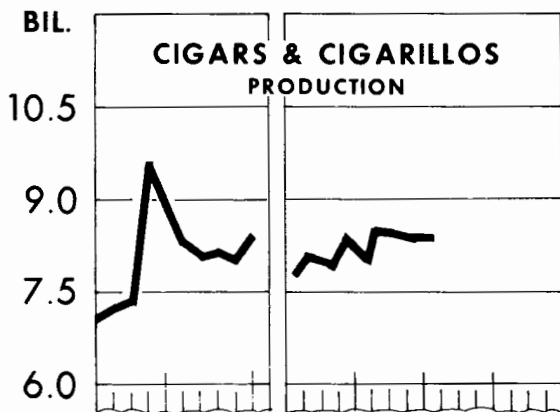
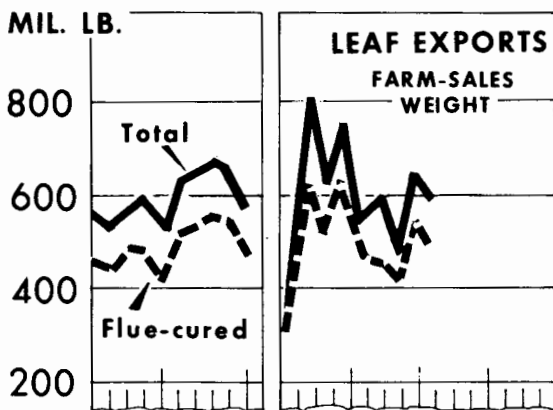
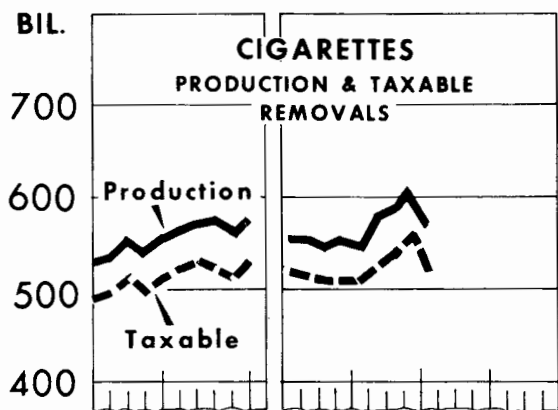
TOBACCO Situation



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TOBACCO OUTLETS

Recent Trends in Manufactured Products and Exports



1965 '70 ANNUAL
'69 '70 '71 '72 QUARTERLY, SEASONALLY ADJUSTED, AT ANNUAL RATES

1965 '70 ANNUAL
'69 '70 '71 '72 QUARTERLY, SEASONALLY ADJUSTED, AT ANNUAL RATES

LAST QUARTER SHOWN ESTIMATED.

THE TOBACCO SITUATION

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Approved by
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and Summary released
March 22, 1971

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Washington, D.C. 20250



The Tobacco Situation is published in March, June, September, and December.

Prospects for domestic use and exports of tobacco remain reduced and total disappearance for 1970/71 may barely equal the 1970 crop of 1.9 billion pounds. This would leave about 3.7 billion pounds carryover at the end of the season, much the same as a year earlier.

For the 1971 crop, tobacco growers expect to reduce plantings for harvest about 6 percent from the 899,000 acres harvested last year. A decline of 44,000 acres is in prospect for flue-cured due in part to the lower farm quotas. Burley growers intend 9,800 fewer acres.

Average yields, allowing for trends on the prospective tobacco acreage would result in a crop of around 1.7 billion pounds, a tenth less than last year. The smaller crop plus an expected carryover about unchanged would give a supply 3 percent smaller than the 5.57 billion pounds for 1970/71. Since the crop would be about 5 percent below estimated requirements for 1971/72, the carryover would decline.

Last year's output of cigarettes, which account for most of the tobacco used in the United States, rebounded to a record 583 billion. The total was up 4 percent from 1969. Filter-tip cigarette output rose to 80 percent of the total. Nonfilter-tip production declined.

In 1970, U.S. smokers used 538 billion cigarettes—2 percent more than the previous year. Adult per capita consumption held its own at 4,000 cigarettes (200 packs). Total consumption in 1971 may hold at last year's level or increase slightly. Sales of cigars and smoking tobacco are gaining.

In the second half of 1970, domestic use of U.S. tobacco was 4 percent below a year earlier, despite a 7 1/2 percent jump in cigarette production. Total domestic use for the 1970/71 marketing year is now placed at 1.29 billion pounds, about 4 percent below last year.

U.S. exports of tobacco and products reached \$679 million in calendar 1970, the second highest on record. Volume declined but prices advanced. Unmanufactured tobacco exports were worth \$488 million and tobacco product exports reached a record \$191 million. Volume of unmanufactured tobacco totaled 510 million pounds (equivalent to about 570 million pounds, farm-sales weight). This was about 12 percent below 1969.

For the current fiscal year, exports may fall 10-12 percent. During July-January they totaled 339 million pounds (export weight) down 11 percent. United Kingdom manufacturers have taken substantially less.

Flue-cured tobacco disappearance in the current marketing year may fall 7 percent below the previous year's 1.2 billion pounds. This would leave carryover in mid-1970 around 2.0 billion pounds, up 3 percent.

Flue-cured growers intend to set about 8 percent less acres than last year. Although the base quota is

unchanged, the effective quota is about 10 percent below 1970 because of a smaller carryover of undermarketings. With average yields, production could turn out 15 percent below last year's 1.19 billion pounds. Even with larger beginning stocks, next season's supply would total less than in 1970/71.

Disappearance of burley tobacco in 1970/71 may decline from last year's 565 million pounds. Domestic use may decline a little even if U.S. cigarette output steadies. Large foreign burley production has diminished our exports. Burley carryover next October 1 probably will not change much from the year-earlier level.

Congress postponed the burley program announcement and is considering new legislation that would

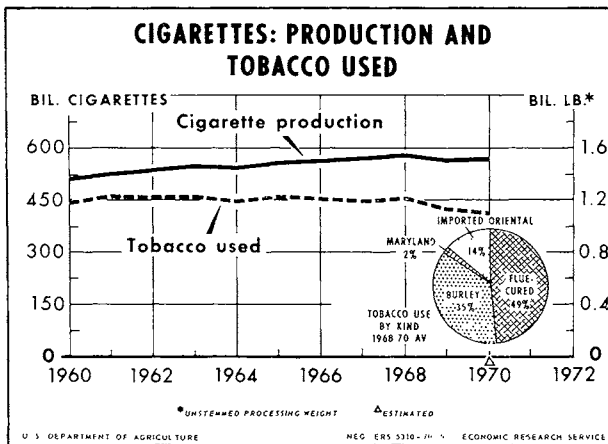
authorize a poundage control program in place of acreage allotments. If enacted and then offered to growers, a two-thirds favorable vote would be required to continue marketing quotas and price support. If a program is not so approved, neither quotas nor price supports would apply on the 1971 crop. The March 1 grower intentions project to a crop 4 percent below last year, but the program offered to producers may change their plans. A reduced crop would result in a 1971/72 supply fractionally smaller than this season.

Slight increases in acreage are in prospect for fire-cured, Maryland, and cigar binder types. Decreases are indicated for dark air-cured, cigar filler, and shade-grown cigar wrapper.

TOBACCO PRODUCTS

Cigarette Production Record High in 1970

U.S. cigarette output gained last year. Both domestic consumption and exports rose to new highs following a setback in 1969. Also, manufacturers added to inventories. For this year, with cigarette advertising at a lower level, use may about hold steady. Manufacturers probably will reduce their inventories, so cigarette production may decline slightly.



Cigarette output last year totaled 583 billion, 4 percent above the 1969 level, and 2 percent above the previous high in 1968 (table 1). Last year's increase was the biggest change since 1958. Most of last year's gain occurred in the second half when manufacturers brought out new brands and built inventories as a strike hedge for 1971. Anti-cigarette publicity continued at a high level last year, but apparently did not dampen consumption to the same extent as in 1968 and 1969.

U.S. smokers (including those overseas) used 2 percent more cigarettes than in 1969. Consumption per capita, 18 and over, held its own at 4,000 (200 packs of 20). That was still below the 1963 peak (table 3).

U.S. exports of cigarettes soared one-sixth above 1969 and one-tenth above the previous record of 1968. The declared value of cigarette exports rose to \$159

million, up 23 percent reflecting a gain in unit value as well as quantity. Booming foreign cigarette consumption means U.S. exports will likely continue their upward trend this year.

Cigarette exports to leading destinations, 1969-1970

Country	1968	1969	1970 ¹	1970 as a percent of 1969
	Million	Million	Million	Percent
Hong Kong	2,667	2,685	3,168	118
Spain	1,924	1,188	1,745	147
Colombia	719	1,128	1,422	126
Netherlands				
Antilles	1,412	1,356	1,406	104
Switzerland	1,171	1,117	1,384	124
Panama	1,033	1,275	1,222	96
Kuwait	1,371	1,193	1,184	99
Belgium-Luxembourg	993	960	1,161	121
Other	14,877	13,398	15,185	113
Total	26,461	24,970	29,147	117

¹ Subject to revision.

Filter Trend Continues

The annual ERS survey of cigarette manufacturers indicated a further gain in filtertip cigarettes in 1970 to 80 percent of production—up from 78 percent in 1969—and a consequent decline in the non-filter category (table 2). The filter-tip gain was largely in the 100 millimeter size, that made up 10 percent of 1970 output.

Except for the 100 millimeters, filter-tip cigarettes have a shorter tobacco column than nonfilter cigarettes. Over the past several years the filters have been lengthened. Also, some brands have smaller diameters. These factors substantially reduce tobacco requirements per cigarette.

Cigarette Price Rise Slows

Retail cigarette prices rose in 1970, mostly due to manufacturers' wholesale price increases and higher

Table 1.--Cigarettes: Output, removals, and consumption, average 1955-59, annual 1960-70

Year	Output	Removals					Total U.S. consumption
		Taxable	Total	Exports	Puerto Rico and U.S. possessions	Overseas forces	
<u>Billion</u>							
Average: 1955-59	447.8	414.9	32.7	17.1	2.1	13.5	428.4
1960	506.9	470.1	37.0	20.2	2.5	14.3	484.4
1961	528.3	488.1	39.6	22.2	2.8	14.6	502.7
1962	535.5	494.5	41.1	24.1	3.1	13.9	508.4
1963	550.6	509.6	41.1	23.6	3.2	14.3	523.9
1964	539.9	497.4	42.6	25.1	3.7	13.8	511.2
1965	556.8	511.5	44.2	23.1	3.9	17.2	528.7
1966	567.3	522.5	46.1	23.5	3.9	18.7	541.2
1967	567.2	527.8	49.0	23.7	3.9	21.4	549.2
1968	579.5	523.0	53.8	26.5	4.7	22.6	545.6
1969	557.6	510.5	47.1	25.0	3.7	18.4	528.9
1970 ^{3/}	583.2	532.8	51.2	29.1	3.7	18.4	4/538.4

^{1/} Also includes ship stores and small tax-exempt categories. ^{2/} Taxable removals plus overseas forces. ^{3/} Subject to revision. ^{4/} Excludes 12.8 billion inventory increase (estimated).
Compiled from reports of Internal Revenue Service and Bureau of the Census.

Table 2.--Cigarettes: Estimated output of nonfilter-tip and filter-tip by length, and percentage distribution, average 1955-59, annual 1960-70

Year	Nonfilter-tip			Filter-tip				
	Total	Regular 70 mm.	King 85 mm.	Total	Regular 70 mm.	Long 80 mm.	King 85 mm.	Extra long 100 mm.
<u>Billion</u>								
Average: 1955-59	285.0	187.3	97.7	162.8	7.3	34.6	120.8	---
1960	248.9	151.9	97.0	258.0	3.6	46.4	208.0	---
1961	251.2	148.5	102.7	277.1	3.1	47.4	226.6	---
1962	243.0	139.8	103.2	292.5	2.4	48.1	242.0	---
1963 ^{1/}	231.6	128.7	102.9	319.2	2.0	47.1	270.1	---
1964	211.2	111.7	99.5	328.7	1.8	42.4	284.5	---
1965	198.0	101.7	96.3	358.8	1.5	43.2	312.1	2.0
1966	180.0	91.1	88.9	387.3	1.2	43.3	331.8	11.0
1967	159.3	79.1	80.2	416.9	1.1	38.7	322.0	55.1
1968	145.5	69.0	76.5	434.0	1.1	41.1	315.3	76.5
1969	125.3	60.0	65.3	432.3	.9	40.2	304.7	86.5
1970	115.8	53.9	61.9	467.4	.8	47.9	313.9	104.8
<u>Percentage distribution</u>								
<u>Percent</u>								
Average: 1955-59	63.6	41.8	21.8	36.4	1.7	7.7	27.0	---
1960	49.1	30.0	19.1	50.9	.7	9.2	41.0	---
1961	47.5	28.1	19.4	52.5	.6	9.0	42.9	---
1962	45.4	26.1	19.3	54.6	.4	9.0	45.2	---
1963	42.0	23.3	18.7	58.0	.4	8.6	49.0	---
1964	39.1	20.7	18.4	60.9	.3	7.9	52.7	---
1965	35.6	18.3	17.3	64.4	.3	7.7	56.0	0.4
1966	31.8	16.1	15.7	68.2	.2	7.6	58.5	1.9
1967	27.6	13.7	13.9	72.4	.2	6.7	55.9	9.6
1968	25.1	11.9	13.2	74.9	.2	7.1	54.4	13.2
1969	22.5	10.8	11.7	77.5	.2	7.2	54.6	15.5
1970	19.9	9.2	10.6	80.1	.1	8.2	53.8	18.0

^{1/} Data for 1958 and 1963 are from Census of Manufactures. Cigarettes having other lengths than specified were included in the group with which they were most nearly comparable.

Table 3 --Consumption per capita of tobacco products in the United States (including overseas forces), average, 1925-59, annual, 1960-70

Year	Per capita 18 years and over				Per male 18 years and over			
	Cigarettes 1/	Snuff 2/	All tobacco products 1/		Large cigars and cigarillos 1/	Smoking tobacco 2/		Chewing tobacco 2/
	Number	Pounds			Number	Pounds		
Average:								
1925-29	1,285	3.56	0.52	9.68	177.4	4.10	4.15	5.03
1930-34	1,389	3.82	.46	8.80	125.2	2.96	4.40	3.15
1935-39	1,779	4.81	.42	9.22	120.9	2.89	4.39	2.48
1940-44	2,558	6.97	.43	10.88	118.9	2.87	3.67	2.34
1945-49	3,459	9.38	.41	12.46	113.7	2.74	2.35	2.01
1950-54	3,695	9.98	.36	12.61	112.4	2.63	1.78	1.58
1955-59	3,806	9.39	.32	11.71	115.8	2.48	1.34	1.30
1960	4,171	9.64	.30	11.82	124.7	2.42	1.30	1.13
1961	4,266	9.84	.29	12.00	122.9	2.43	1.30	1.13
1962	4,265	9.69	.28	11.80	121.9	2.40	1.24	1.10
1963	4,345	9.70	.27	11.78	124.6	2.39	1.22	1.11
1964	4,194	9.21	.26	11.54	154.3	2.69	1.42	1.11
1965	4,258	9.37	.24	11.51	143.8	2.57	1.19	1.07
1966	4,287	9.08	.23	11.12	136.1	2.41	1.13	1.05
1967	4,280	8.86	.23	10.80	130.7	2.28	1.08	1.04
1968	4,186	8.69	.21	10.59	126.5	2.15	1.11	1.05
1969	3,993	8.11	.20	10.04	125.0	2.11	1.08	1.09
1970 3/	4,000	7.83	.20	9.70	125.3	2.08	1.15	1.06
1957-59=100								
Average:								
1925-29	33	38	168	83	150	167	316	406
1930-34	35	41	150	76	106	120	334	254
1935-39	45	51	138	79	102	117	333	200
1940-44	65	74	140	94	100	117	279	189
1945-49	88	100	132	107	96	112	179	162
1950-54	94	107	119	108	95	107	177	158
1955-59	97	100	105	101	98	101	134	130
1960	106	103	97	102	105	98	99	91
1961	109	105	93	103	104	99	99	92
1962	109	103	91	102	103	97	94	89
1963	111	104	86	101	105	97	93	89
1964	107	98	84	99	130	109	108	90
1965	108	100	78	99	122	105	90	86
1966	109	97	75	97	115	98	86	85
1967	109	95	73	93	110	93	82	84
1968	107	93	68	91	107	87	84	84
1969	102	87	66	86	106	86	82	88
1970 3/	102	84	65	83	106	85	87	85

1/ Unstemmed processing weight. 2/ Finished product weight. 3/ Subject to revision.

Table 4.--Tobacco demand factors, 1960-70

Year	Population, July 1 1/	Disposable personal income, per capita 2/		Consumer price indexes					
		Current prices	1958 prices	All items	Tobacco products	Cigarettes			Cigars, regular size
						Nonfilter regular	Filtertip, King size 3/		
1957-59=100									
1960	116.1	1,937	1,883	103.1	107.1	107.6	106.9	104.7	
1961	117.8	1,983	1,909	104.2	108.0	108.6	107.9	102.6	
1962	119.2	2,064	1,968	105.4	108.8	109.7	108.9	100.0	
1963	120.6	2,136	2,013	106.7	112.2	114.4	111.3	100.0	
1964	121.9	2,280	2,123	108.1	114.8	118.1	113.2	100.3	
1965	124.2	2,432	2,235	109.9	120.2	124.2	118.9	100.3	
1966	126.3	2,599	2,331	113.1	126.1	130.8	124.9	101.8	
1967	128.3	2,744	2,398	116.3	130.9	136.3	129.7	103.2	
1968	130.4	2,939	2,480	121.2	139.7	144.5	138.5	104.7	
1969	132.5	3,108	2,517	127.7	146.5	153.6	145.7	107.6	
1970	134.6	3,333	2,579	135.3	158.6	166.8	158.9	108.8	

1/ 18 years and older including armed forces overseas. 2/ Based on total population. 3/ March 1959=100.

Cigarette Manufacturers Report Tar and Nicotine

After the FTC proposed a trade regulation rule last August, cigarette manufacturers voluntarily agreed to report cigarette tar and nicotine content in their advertising. FTC accepted the manufacturers' plan on December 22. Advertisements with the most recent FTC text results began appearing in February.

FTC and HEW Report to Congress

In January, the Federal Trade Commission and the Department of Health, Education, and Welfare submitted annual reports and recommendations to Congress as required by the Public Health Smoking Act of 1969.

The 1971 HEW report summarizes the entire field of medical literature concerning the health consequences of smoking. An HEW survey of cigarette smoking habits last spring indicated for the first time the smoking rate for women dropped. The proportion of men who smoke continued to decline.

The FTC reiterated its 1969 recommendations that a warning label and a statement of the tar and nicotine content of cigarette smoke be required in all cigarette advertising and on packages. FTC recommended increased HEW spending for public education on health hazards of smoking, and for National Institutes of Health research to develop less hazardous cigarettes.

Cigar Consumption Gained in 1970

The gain in cigar consumption continued in fourth quarter 1970, so for all of last year U.S. smokers (including those overseas) consumed about 8.1 billion cigars—1.7 percent more than in 1969. This gain compared with a 0.2 percent gain in 1969 and decline for 4 years previously (table 5). The BLS index of retail cigar prices rose 1 percent last year. Cigar consumption may rise again this year.

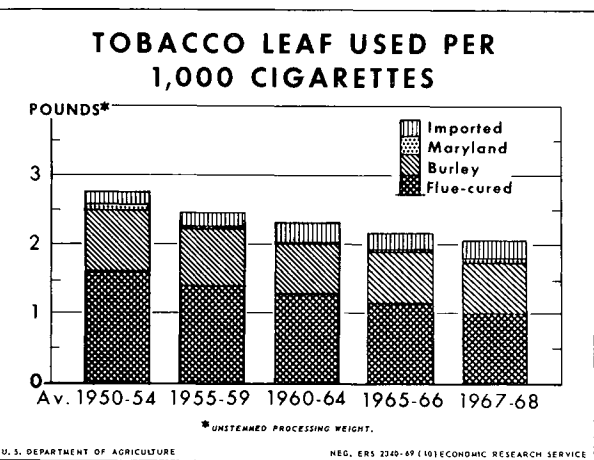
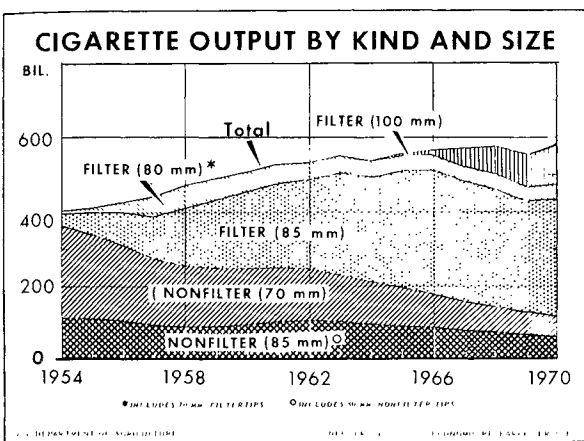
Lower priced cigars accounted for the gain in taxable removals. Manufacturers devoted more promotion effort to smaller cigarillo-size cigars.

Roll-your-owns Boost Smoking Tobacco Use

Despite a lower rate in the fourth quarter, U.S. production of smoking tobacco last year totaled 69 million pounds, 9 percent above 1969. All the increase came from rising sales of brands for roll-your-own cigarettes; pipe tobacco volume was unchanged (tables 7 and 8).

Last year's estimated consumption of smoking tobacco—domestic sales plus imports—amounted to 74 million pounds, 8 percent above 1969. Domestic factories sold 5 percent more in 1970. Gains may continue this year but at a slower rate.

Roll-your-own took an estimated 28 million pounds of smoking tobacco in 1970, about 38 percent of U.S. smoking tobacco consumption (table 9).



cigarette taxes by many States. Since the price boosts in mid-1970, the rise has moderated, but in January the BLS retail price indexes for cigarettes were 6 percent above a year earlier.

The average State cigarette tax rate (weighted by number of packs taxed) was 10.7 cents per pack in December 1970, up from 10.1 cents a year earlier. Tax increases are proposed this year in several States. The Federal excise tax is 8 cents a pack. In addition, a considerable number of local governments tax cigarettes.

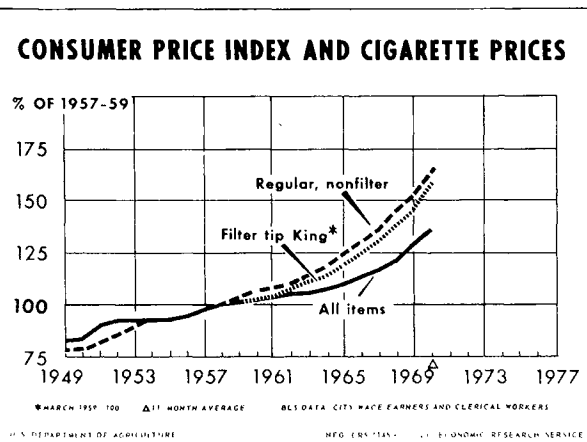


Table 5.--Large cigars and cigarillos: Output and consumption, 1950-70

Period	United States factories <u>1/</u>			From			Total U.S.
	Total	Removals		Puerto Rico:	Imports	Exports	consumption
	output	Taxable	Tax-exempt	tabable			<u>2/</u>
<u>Millions</u>							
Average:							
1950-54	5,902	5,818	83	13	15	4	5,925
1955-59	6,295	6,350	85	117	26	<u>3/9</u>	6,369
1960	6,991	6,728	105	198	32	<u>3/11</u>	7,052
1961	6,642	6,558	118	354	24	<u>3/16</u>	7,038
1962	6,684	6,442	126	483	23	<u>3/19</u>	7,055
1963	6,716	6,621	144	526	24	33	7,282
1964	8,736	8,106	193	809	28	44	9,108
1965	7,899	7,577	180	911	25	55	8,638
1966	7,165	7,076	193	1,075	25	73	8,296
1967	6,858	6,845	197	1,099	30	76	8,095
1968	7,183	6,759	169	1,036	48	66	7,946
1969	6,930	6,745	169	1,078	45	65	7,972
1970 <u>4/</u>	7,090	6,201	162	1,259	46	59	8,109

1/ Includes bonded manufacturing warehouses (none in this category since February 1964). 2/ Total removals from U.S. factories plus those from Puerto Rico, and imports, minus exports. 3/ Estimated--excludes little cigars. 4/ Subject to revision.

Compiled from reports of the Internal Revenue Service and the Bureau of the Census.

Table 6.--Small cigars: Output and removals, 1950-70 1/

Period	Output	Factory removals		
		Total	Taxable	Tax-exempt
<u>Millions</u>				
Average:				
1950-54	64.9	65.0	64.2	0.8
1955-59	174.3	166.4	161.2	5.2
1960	148.7	158.7	141.9	16.8
1961	158.2	152.9	156.1	6.8
1962	164.0	162.9	155.8	7.1
1963	281.4	272.4	264.2	8.2
1964	973.9	973.8	939.7	34.1
1965	440.7	457.8	434.7	23.1
1966	445.3	452.6	435.7	16.9
1967	434.2	440.8	430.7	10.1
1968	523.4	510.8	503.5	7.3
1969	720.2	741.8	731.0	10.8
1970 <u>2/</u>	927.9	902.6	889.2	13.4

1/ Weigh 3 pounds or less per thousand, approximately cigarette size. 2/ Subject to revision.
Compiled from reports of the Internal Revenue Service.

Table 7.--Smoking tobacco: Production, removals, foreign trade, and consumption, average 1955-59, annual 1960-70

Period	Production	Removals <u>1/</u>		Imports <u>2/</u>	Exports, in packages	Total consumption <u>3/</u>	Exports smoking tobacco in bulk <u>4/</u>
		Taxable <u>1/</u>	Tax-exempt <u>1/</u>				
Million pounds							
Average: 1955-59	74.1	72.3	1.9	0.3	0.6	73.9	6.4
1960	73.8	71.3	2.3	.9	.9	73.6	7.7
1961	74.2	71.4	2.5	1.3	.8	74.4	9.0
1962	70.9	68.3	2.6	1.5	.9	71.5	8.6
1963	70.4	68.0	2.2	1.6	.9	70.9	9.8
1964	82.4	79.0	3.4	2.7	1.4	83.7	12.3
1965	71.8	67.3	3.0	2.1	1.0	71.4	13.6
1966	67.3	65.3	1.5	3.3	.9	69.2	14.9
1967	64.8	62.7	2.0	3.7	1.3	67.1	15.9
1968	66.3	64.1	1.9	5.5	1.8	69.7	21.6
1969	63.9	62.6	1.6	5.7	1.1	68.8	20.3
1970 <u>5/</u>	69.4	65.6	1.5	8.4	1.1	74.4	23.9

1/ After December 1956, taxable removals data replaced by domestic sales, and tax-exempt removals data replaced by export sales. 2/ Prior to July 1962 and after December 1965, data are from Census import classification covering mainly smoking tobacco; from July 1962 through December 1965, data represent taxable removals of imported smoking tobacco reported by Internal Revenue Service. 3/ Total removals (or sales) plus imports minus exports in packages. 4/ Includes specially prepared cigarette tobacco, cut or granulated tobacco, partially-processed blended tobacco and shredded tobacco. Virtually all this export class excluded from smoking tobacco production figures. 5/ Subject to revision.

Compiled from reports of the Internal Revenue Service, Bureau of the Census, and Consumer and Marketing Service, USDA.

Table 8.--Smoking tobacco: Production and manufacturers' sales by category, 1969 and 1970

Smoking tobacco products	Manufactured		Invoiced					
			To domestic customers		For export <u>1/</u>		Total	
	1969	1970	1969	1970	1969	1970	1969	1970
Million pounds								
Pipe	56.8	56.9	55.6	54.7	1.6	1.5	57.2	56.2
Granulated or sack	1.1	1.0	1.1	1.0	<u>2/</u>	<u>2/</u>	1.1	1.0
Cigarette cut	5.9	11.5	5.9	9.9	<u>2/</u>	<u>2/</u>	5.9	9.9
Total <u>3/</u>	63.9	69.3	62.6	65.6	1.6	1.5	64.2	67.1

1/ Sales for overseas shipment (to foreign markets and overseas forces).
2/ Negligible.
3/ Computed from unrounded numbers.

Table 9.--Estimated number of roll-your-own cigarettes smoked and smoking tobacco consumed, 1955-70 1/

Year	Roll-your-own cigarettes	Total <u>2/</u>	Smoking tobacco consumption			
			Used for --			
			Roll-your-own cigarettes		Pipe tobacco	
			Quantity	Percent of total	Quantity	Percent of total
	<u>Billion</u>	<u>Million pounds</u>		<u>Million pounds</u>	<u>Percent</u>	
Average:						
1955-59	11.9	74	21	29	53	71
1960-64	12.6	75	23	30	52	70
1965	11.2	71	20	28	51	72
1966	10.3	72	19	26	53	74
1967	11.7	67	21	31	46	69
1968	9.2	70	17	34	53	76
1969	10.4	69	19	27	50	73
1970	15.7	74	28	38	46	62

1/ Derived from shipments of cigarette papers. 2/ Includes imported smoking tobacco.

Table 10.--Chewing tobacco and snuff: Production by category, average 1955-59, annual 1960-70

Period	Chewing tobacco					Snuff
	Plug	Twist	Fine-cut	Scrap	Total	
	<u>Million pounds</u>					
Average:						
1955-59	31.9	4.0	2.9	34.3	73.1	36.4
1960	26.4	3.4	3.1	32.0	64.9	34.6
1961	26.0	3.3	3.2	32.7	65.2	33.8
1962	26.0	2.9	3.3	32.5	64.7	33.2
1963	24.9	2.9	3.3	34.2	65.3	31.8
1964	25.9	2.8	3.5	34.0	66.2	31.4
1965	24.7	2.8	3.7	33.9	65.1	29.7
1966	24.3	2.7	3.9	34.3	65.2	29.5
1967	23.7	2.6	4.1	34.0	64.4	29.3
1968	22.9	2.6	4.3	35.7	65.4	27.1
1969	23.3	2.5	4.5	39.5	69.8	27.6
1970 <u>1/</u>	22.0	2.4	4.8	39.5	68.8	26.5

1/ Subject to revision.

Compiled from reports of the Internal Revenue Service and Consumer and Marketing Service, USDA.

Cigars: Taxable removals by revenue class, 1969-70

Revenue class and retail price	1969	1970	Change from 1969
	<i>Billion</i>	<i>Billion</i>	<i>Percent</i>
A-D (up to 8 cents)	4.91	5.23	+6.5
E (over 8 to 15 cents)	2.40	2.22	-7.5
F-G (over 15 cents) . . . . .	.54	.53	+1.9
Total removals	7.84	7.98	+1.7

Manufactured tobacco imports (mostly smoking tobacco) reached a new high of 8.4 million pounds in 1970. The value was \$10.9 million. Most imports came from the Netherlands, with Sweden, United Kingdom and Denmark secondary sources.

Bulk Smoking Tobacco Exports Gain

Exports of smoking tobacco in bulk, after declining in 1969, rose 13 percent to 23.7 million pounds in 1970. The average value also gained, bringing total value to \$27.9 million. This export category includes specially prepared cigarette leaf and cut or shredded tobacco from U.S. and foreign sources. It also includes processed sheet, blended strips, or stemmed tobacco consisting of more than one kind—principally blended flue-cured and burley.

Bulk smoking tobacco exports to leading destinations, 1970

Country	Amount	Country	Amount
	<i>Mil. lb.</i>		<i>Mil. lb.</i>
Italy	4.5	Bolivia . . . . .	.8
Netherlands	3.7	Ecuador . . . . .	.8
Switzerland	3.0	Haita . . . . .	.6
Dominican Rep.	1.8	Finland . . . . .	.6
Spain	1.8	France . . . . .	.6

Chewing Tobacco Output Below 1969 High

Lower production and sales in the final quarter of 1970 reduced last year's output of chewing tobacco to

69 million pounds, 1.4 percent below 1969. Of the 2 principal categories, scrap output stayed about the same while plug chewing declined 6 percent (table 10).

Manufacturers sell virtually all their chewing tobacco output domestically. Sales last year fell 1.6 percent with nearly all of the decline in plug. Wholesale prices rose 11 percent for the year.

Snuff production in 1970 dropped 4 percent as domestic sales were off 1 percent. Snuff use has trended downward since 1956.

Tobacco Products Expenditures and Taxes

Consumers and businesses spent an estimated \$11.7 billion for tobacco products during 1970, one-eighth more than the previous year. Expenditures on cigarettes continued to gain and accounted for 90.6 percent of the total (table 25).

Federal, State, and municipal taxes on tobacco products totaled an estimated \$4.7 billion, or 40 percent of the tobacco expenditures. During the 1960's Federal tobacco taxes were \$2.0-2.2 billion a year, and they far surpassed State taxes. But States increased their rates and their tax take now exceeds the Federal collection. The annual gain in tax revenues from tobacco products during the 1960's averaged 4 percent (table 26). Tobacco taxes account for about 1 percent of the Federal Government receipts and about 2 percent for State and local governments.

U.S. EXPORTS AND IMPORTS

The United States is the leading tobacco exporter and the third largest tobacco importer. In recent years about 35 percent of the U.S. tobacco crop has been exported—representing about one-third of world tobacco exports. U.S. exports of tobacco and products were valued at a record \$679 million in 1970. This includes unmanufactured tobacco worth \$488 million and tobacco products of \$191 million. Imports used for blending with domestic types and tobacco products were worth \$127 million. Thus, U.S. foreign trade in tobacco contributed a substantial favorable trade balance.

Leaf Tobacco Exports Decline

With exports trailing year-earlier volume for all but 2 months last year, U.S. exports of unmanufactured

tobacco in 1970 totaled 510 million pounds (export weight). This was 570 million pounds farm-sales weight. Compared with 1969, last year's exports were off 12 percent. Heavy movement in late 1969 held down first quarter shipments; second quarter recovery reflected some program shipments. Third and fourth quarter shipments were hurt particularly by U.K. manufacturers buying less of the 1970 flue-cured crop.

Reduced exports of flue-cured—the principal export class—accounted for most of the drop in U.S. exports. However, burley and cigar kinds were also lower. Exports of Maryland, Black Fat, and stems and trimmings were higher. Fire-cured and dark air-cured exports held about the same as in 1969 (table 11).

Table 11.--United States exports of unmanufactured tobacco by types and to principal importing countries for specified periods

Country and type	(Declared weight)					1970 1/	1970 as a percentage of 1969
	Average 1962-66	1967	1968	1969			
	----- Million pounds -----					Percent	
Flue-cured	389.6	427.4	443.5	429.6	367.3	85	
Burley	45.7	45.3	42.8	52.0	41.4	80	
Maryland	10.9	15.1	13.8	10.4	11.8	113	
Fire- and sun-cured	23.5	26.3	25.5	25.5	25.1	98	
Green River	.7	.9	.5	.4	.3	75	
One Sucker	.6	1.0	1.0	.4	.5	125	
Black Fat, etc.	3.8	4.1	2.5	1.1	2.7	245	
Cigar wrapper	4.6	3.7	4.6	2.2	1.6	73	
Cigar binder	1.5	1.8	2.2	.9	.3	33	
Cigar filler	.7	.9	.6	.6	.4	67	
Perique	.3	.2	.2	.1	.2	200	
Stems, trimmings, and scrap	19.7	44.9	61.5	54.1	58.8	109	
Total	501.6	571.6	598.8	577.5	510.3	88	
Country of destination							
United Kingdom	116.8	137.6	146.7	134.2	95.4	71	
France	6.4	6.3	6.9	8.6	9.0	105	
Belgium	17.5	17.5	20.1	17.4	12.4	71	
Netherlands	31.4	40.5	44.0	33.6	26.6	79	
West Germany	86.2	114.3	88.6	102.2	92.6	91	
Portugal	5.8	5.5	4.6	6.3	4.9	78	
Denmark	14.6	16.4	19.2	19.1	18.1	95	
Ireland	14.3	14.3	15.0	10.5	10.2	97	
Switzerland	13.8	21.4	24.8	26.4	24.7	94	
Finland	6.8	5.9	5.5	5.9	5.0	85	
Norway	7.7	8.4	9.7	7.2	8.1	112	
Sweden	15.1	19.3	16.9	13.9	19.5	140	
Italy	10.3	7.1	5.0	19.5	3.1	16	
Spain	2.7	3.8	5.5	4.1	3.0	73	
Thailand	11.5	23.2	28.9	24.3	20.1	83	
S. Vietnam	8.4	12.9	10.4	10.8	10.8	100	
Malaysia 2/	6.1	9.6	10.9	10.9	11.8	108	
Hong Kong	6.8	5.9	5.6	4.2	4.3	102	
Japan	33.3	27.0	48.8	40.9	58.6	143	
Australia	18.1	13.3	19.7	20.2	10.2	50	
New Zealand	3.9	3.8	5.9	2.5	5.0	200	
Egypt	14.7	1.4	.6	2.6	.6	23	
Other countries	49.4	56.2	55.3	52.2	56.3	108	
Total	501.6	571.6	598.8	577.5	510.3	88	

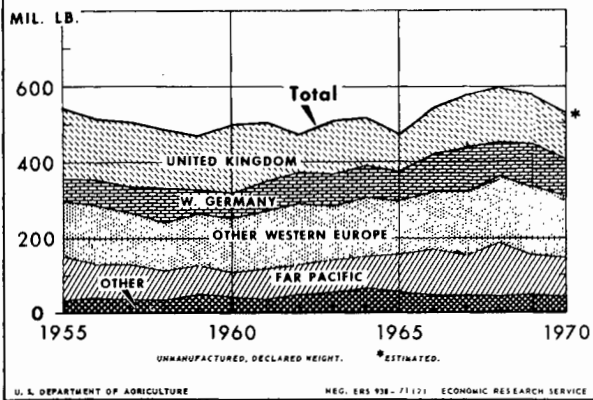
1/ Preliminary.

2/ Malaysia and Singapore.

Detail may not add to total due to rounding.

Compiled from publications and records of the Bureau of the Census.

EXPORT MARKETS FOR U. S. TOBACCO



Last year 123 million pounds of tobacco were bartered for materials and services used by U.S. agencies overseas. These transactions are considered equivalent to dollar sales. About six-tenths of barter exports went to Western Europe, three-tenths went to the Far East and Pacific countries, and the remainder to other areas. CCC provided credit on 59 million pounds of commercial exports. Most financing is for 12 months but is authorized up to 36 months. This program reduces storage charges and permits U.S. exporters to meet credit terms offered by other countries (table 12).

The July 1970-January 1971 exports of 339 million pounds were 42 million below a year earlier. Little pickup is in sight and exports for the rest of the fiscal year will do well to equal the year-earlier level. For the year ending June 30, 1971, U.S. exports of unmanufactured tobacco may fall 10-12 percent below the 571 million pounds shipped in 1969/70.

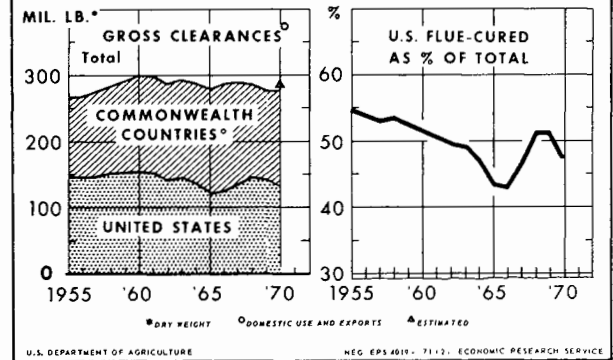
Other Export Highlights

The United Kingdom, the largest export market for U.S. leaf, reduced takings 29 percent from 1969. Manufacturers depleted their stocks because of lower cost supplies from elsewhere. Also, there was uncertainty over U.K. entry into the European Community (EC), and possible adverse consumer reaction to a health report which was issued in January. West Germany—the second ranking U.S. market—decreased takings 9 percent from the previous year's high level. The EC adopted a restrictive Common Agricultural Policy (CAP) for raw tobacco last year. Japan—the third ranking market—had a big gain in takings after 1969's decline. Shifts in shipping patterns account for some of the variations. Among other major markets, the Netherlands, Belgium, Italy, and Australia reduced takings from the United States sharply when competitive supplies became available from other countries.

Flue-cured exports made up seven-tenths of the total. These exports declined 15 percent from 1969 with a

smaller quantity going to the United Kingdom and most European countries, including West Germany. Sizable increases were recorded by Japan.

UNITED KINGDOM GROSS CLEARANCES OF FLUE-CURED TOBACCO



Burley exports were down sharply to the European Common Market countries and Switzerland. Maryland tobacco exports gained 1 million pounds but stayed 2 million below 1968 level. Takings increased for Switzerland, the major market, where U.S. flue and burley use is gaining. Belgium and Portugal took less.

U.S. tobacco exports under Government financed programs (Public Law 480) in 1970 totaled about 22 million pounds, the smallest quantity since the program began in 1954. Most of the exports for foreign currencies last year went to South Vietnam. The Philippine Republic took the largest quantity of long-term dollar credit shipments.

Barter exports, leading destinations, 1970

Country	Amount	Country	Amount
	Mil. lb.		Mil. lb.
W. Germany	18.5	Malaysia	7.0
Japan	16.5	Norway	6.9
United Kingdom	14.4	Portugal	4.8
Denmark	9.9	Spain	4.4
Taiwan	8.6	Austria	4.1

U.S. Tobacco Imports Pick Up

Imports of unmanufactured tobacco for consumption (factory use of imports) recovered in 1970 following a decline 1969. The total of 219 million pounds was up 4 percent (table 13).

Despite last year's higher U.S. cigarette production, manufacturers used less oriental cigarette leaf. There were gains in imported flue-cured and burley leaf and in lower valued imports of scrap (small pieces of leaves used principally for cigars).

Cigarette tobacco imports picked up at the end of 1970 to account for about one-seventh of domestic tobacco utilization. A high level of factory use will probably continue this year.

Table 12.--Exports of unmanufactured tobacco under Government financed programs and commercial sales, 1955-59 average, 1960-70 annual

Calendar year	Government-financed exports				Commercial exports				Total unmanufactured tobacco exports
	Title I, P.L. 480	Mutual Security and A.I.D.	Long-term dollar credit sales	Total	Barter ^{1/}	Dollar sales	CCC short term credit	Other	
Quantity (export weight)									
Million pounds									
Average: 1955-59	49.0	---	2.9	51.9	4.0	---	443.9	447.9	499.8
1960	31.2	---	22.8	54.0	27.3	---	414.8	442.1	496.1
1961	26.0	---	20.5	46.5	61.3	---	393.2	454.5	501.0
1962	28.5	0.4	.4	29.3	50.3	---	389.3	439.6	468.9
1963	35.6	3.4	---	39.0	14.9	1.0	450.6	466.5	505.5
1964	37.9	3.5	4.3	45.7	19.5	---	449.3	468.8	514.5
1965	29.7	2.9	1.7	34.3	54.9	.3	378.6	433.8	468.1
1966	25.8	1.0	4.3	31.1	86.0	15.8	418.3	520.1	551.2
1967	17.4	5.9	2.5	25.8	91.4	10.8	444.3	546.5	572.3
1968	20.1	12.1	.3	32.5	92.7	13.5	460.1	566.3	598.8
1969	16.5	15.2	---	31.7	123.2	35.8	386.8	545.8	577.5
1970 ^{2/}	11.8	10.3	---	22.1	122.8	58.6	306.8	488.2	510.3
Value									
Million dollars									
Average: 1955-59	35.3	---	1.6	36.9	2.3	---	310.7	313.0	349.9
1960	22.0	---	17.8	39.8	21.0	---	318.5	339.5	379.3
1961	20.4	---	16.5	36.9	35.2	---	318.8	354.0	390.9
1962	22.2	0.6	.3	23.1	31.1	---	319.2	350.3	373.4
1963	25.1	2.9	---	28.0	9.1	0.7	365.3	375.1	403.1
1964	24.3	3.7	2.8	30.8	11.9	---	370.2	382.1	412.9
1965	19.4	2.5	1.4	23.3	38.8	.2	320.4	359.4	382.7
1966	19.2	.8	3.8	23.8	65.7	14.0	378.0	457.7	481.5
1967	15.2	4.5	2.0	21.7	79.9	9.4	387.3	476.6	498.3
1968	17.3	10.2	.3	27.8	92.4	11.7	392.5	496.6	524.4
1969	14.9	13.6	---	28.5	121.6	36.1	353.5	511.2	539.7
1970 ^{2/}	12.4	8.7	---	21.1	130.2	63.4	273.7	467.3	488.4

^{1/} Government-financed for strategic materials, 1958-62.

^{2/} Subject to revision.

Table 13.--U.S. imports of unmanufactured tobacco for consumption and general, principal categories, and countries of origin, 1968-70

(Declared weight)								
Classification and country of origin	Imports for consumption				General imports (arrivals)			
	1968	1969	1970	1970 as a percentage of 1969	1968	1969	1970	1970 as a percentage of 1969
	Million pounds	Million pounds	Million pounds	Percent	Million pounds	Million pounds	Million pounds	Percent
<u>Cigarette tobacco:</u>								
Leaf, unstemmed								
Oriental								
Turkey	98.1	94.2	91.0	97	118.9	76.1	73.2	96
Greece	41.4	29.2	28.7	98	39.4	28.5	18.4	65
Yugoslavia	16.0	14.6	15.8	108	14.0	17.2	19.2	112
Other countries	7.1	5.2	6.3	121	6.6	9.9	14.8	149
Flue-cured and burley								
	2.0	4.5	7.8	173	7.9	14.4	18.3	127
Sub total	164.7	147.7	149.6	101	186.8	146.1	143.9	99
<u>Scrap</u>								
Turkey	6.6	8.2	10.7	131	11.8	11.8	8.7	74
Other countries ^{2/}	3.3	3.2	4.2	131	6.3	3.4	1.8	53
Total	174.6	159.1	164.4	103	204.9	161.3	154.4	96
<u>Cigar tobacco:</u>								
Wrapper	.8	.8	.8	100	1.0	1.2	1.7	142
Filler--stemmed and unstemmed								
Dominican Rep.	.8	.8	1.2	150	9.9	7.6	7.6	100
Other countries	4.7	4.0	4.4	110	23.3	33.5	29.9	89
Sub total	5.5	4.8	5.7	119	33.2	41.1	37.5	91
<u>Scrap</u>								
Philippine Rep.	19.1	22.8	22.3	98	20.1	20.9	18.4	8
Colombia	3.8	4.7	4.4	94	.1	.5	0	---
Dominican Rep.	6.1	5.6	6.6	118	1.7	.7	1.4	200
Brazil	4.1	3.7	3.8	103	^{3/}	.2	.5	250
Other countries	5.9	7.1	10.3	159	.7	3.5	4.6	131
Sub total	39.0	43.9	47.3	108	22.6	25.8	24.9	97
Total	45.3	49.5	53.8	109	56.9	68.1	64.0	94
Stems	1.6	1.1	.4	36	.9	1.1	.3	27
Grand total	221.5	209.7	218.6	104	262.6	230.6	218.8	95

^{1/} Preliminary.^{2/} Canada, Greece, Cyprus, Lebanon, India, Korea.^{3/} Less than 50,000 pounds. Detail may not add to total due to rounding.

Compiled from publications and records of the Bureau of the Census.

During 1970, imports of cigarette leaf (for consumption) increased 2 million pounds. There were lower imports from the 2 major suppliers—Turkey and Greece. The leaf total includes a 3 million pound gain for flue-cured and burley. Average value of U.S. imports of oriental leaf about held its own.

The 1970 imports of scrap for consumption increased 7 million pounds. Turkey, Greece and Dominican Republic had gains. Scrap from Turkey and Greece is considered suitable for cigarette use. There were decreased imports from the Philippine Republic and Colombia.

General imports of tobacco (arrivals; i.e., direct entries plus that placed in bonded warehouses to be

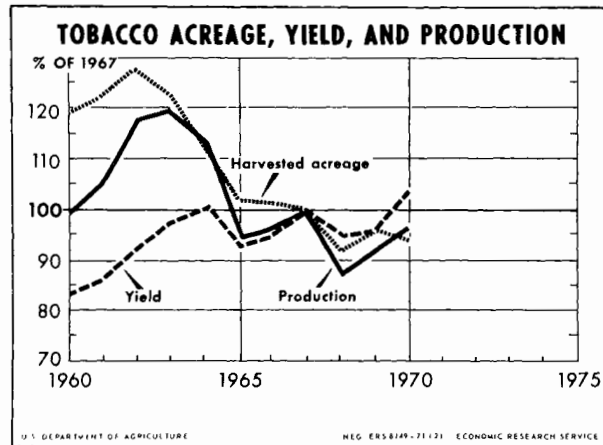
withdrawn for factory use later) dropped further. Oriental cigarette leaf declined the most. Flue and burley leaf and unstemmed cigar filler gained sharply. Most of the filler is reworked in bond and imported as scrap for factory use.

As a result of lower imports, stocks of imported cigarette and smoking tobacco in the United States on January 1, 1971, were down 6 percent from a year earlier (farm-sales weight). Foreign grown flue-cured and burley tobacco are included in the total, but are now reported separately. U.S. stocks of imported cigar leaf increased a little. These inventories include stocks in bonded warehouses, in warehouses of manufacturers and dealers, and in transit.

TOBACCO LEAF SITUATION AND OUTLOOK¹

Because of smaller carryovers, the supply of domestic leaf tobacco in 1970/71, at 5.57 billion pounds, was 1 percent below the previous year. As the larger 1970 crop moved off the farms and the export pace slowed, nonfarm leaf stocks on January 1 climbed 2 percent over a year earlier.

Despite lagging export trade, brisk cigarette sales should keep carryover stocks at the end of the current marketing year about the same as the 3.7 billion pounds at the start. Last year, U.S. cigarette manufacturers used an estimated 1,142 million pounds of tobacco (unstemmed processing weight). This quantity was about the same as in the previous year.



Prospective Acreage Down

Following a year of increased flue-cured production and record-high burley yields, tobacco growers plan to set 6 percent less acreage, according to the March intentions report. An 8 percent decline in flue-cured accounts for most of the drop. Burley growers intend 5 percent less acreage; however, this year's program has not been announced. Growers of Maryland, fire-cured, and cigar binder may set more acreage. Dark air-cured,

¹All quantities in this section are farm-sales weight equivalent unless otherwise noted.

cigar filler, and cigar wrapper may drop. Although the base quota for flue-cured is unchanged, allowance for 1970's net undermarketings give an effective poundage quota 10 percent less than last year.

All tobacco types except Maryland, Pennsylvania filler, shade-grown cigar wrapper, and perique are under quotas this year. Basic allotments were increased for Virginia fire-cured. Quotas were increased and then terminated for cigar binder (types 51-52). Allotments for Kentucky-Tennessee fire-cured and dark air-cured, Virginia sun-cured, and cigar filler and binder (types 42-44 and 53-55) did not change.

Congress is considering new legislation for burley to authorize poundage controls instead of acreage allotments. Any burley program must receive a two-thirds favorable vote in a referendum so price supports and marketing quotas can continue.

For all types of U.S. and Puerto Rican tobacco, production from this year's intended acreage would total

Computations of price support level adjustment factor for tobacco, 1960-71

Crop year	Parity index ¹		Price support level adjustment factor ³
	Previous calendar year	3-year average ²	
	1910-14=100		1959=100
1960	298	293	(⁴)
1961	300	297	100
1962	302	300	101
1963	307	303	102
1964	312	307	103
1965	313	311	104
1966	321	315	106
1967	334	313	108
1968	342	332	111
1969	355	344	115
1970	373	357	120
1971	390	373	125

¹Index of prices paid by farmers, including wage rates, interest, and taxes. ²3 calendar years immediately preceding. ³3-year average parity index divided by 1959 parity index. ⁴Act of February 20, 1960 set the 1960 price support at the 1959 level.

Table 14.--Marketing quota referendums, by kinds of tobacco

Kind (type numbers in parentheses) and basis of quotas <u>1/</u>	Last referendum				Next referendum	
	Date	Crops to which applicable	Number voting	Percentage voting in favor of quota <u>2/</u>	Probable date <u>3/</u>	Crops to which applicable
Flue-cured (11-14) Acreage-poundage	July 16, 1970	1971-73	129,961	98.4	Dec. 1973	1974-76
Burley (31) Acreage allotments	Feb. 26 - Mar. 1, 1968	1968-70	299,696	97.0	May 1971	1971-73
Acreage-poundage	Feb. 27 - Mar. 3, 1967	1967-69	341,539	58.8		
Maryland (32)	Feb. 22-26, 1971	1971-73	3,976	19.2	Feb. 1974 <u>4/</u>	1974-76
Fire-cured (21-23)	Feb. 16-20, 1970	1970-72	12,767	93.8	Feb. 1973	1973-75
Dark air-cured (35-36)	Feb. 16-20, 1970	1970-72	12,234	93.2	Feb. 1973	1973-75
Va. sun-cured (37)	Feb. 22-26, 1971	1971-73	665	94.6	Feb. 1974	1974-76
Pa. filler (41)	Feb. 22-26, 1971	1971-73	1,412	22.5	Feb. 1974 <u>4/</u>	1974-76
Cigar binder (51-52)	Feb. 24-27, 1969	1969-71	462	92.0	Feb. 1972	1972-74
Cigar filler and binder (42-44, 53-55)	Feb. 24-27, 1969	1969-71	4,813	84.6	Feb. 1972	1972-74

1/ Quotas based on acreage allotments unless otherwise specified. 2/ A majority of two-thirds or more of farmers voting is required for marketing quotas to become effective under the acreage allotment program or acreage-poundage program. 3/ Probable month, but referendums can occur earlier if warranted by pertinent considerations. 4/ Unless at least a fourth of the growers petition the Secretary in the interim.

1.71 billion pounds, 10-1/2 percent less than last year. This level can be achieved with a reasonably favorable season. This size crop plus the tentative carryover gives a 1971/72 supply a little under this year's level. However, the burley program that eventually develops could change the prospective crop.

1971 Price Support Program

Growers of Virginia sun-cured tobacco approved marketing quotas on their next 3 crops in a referendum held in February. Therefore, government price support will be available for their 1971, 1972 and 1973 crops. Burley price support depends on producers approving marketing quotas in a referendum. Growers of Maryland and Pennsylvania filler tobaccos disapproved marketing quotas in referendums conducted in February.

FLUE-CURED

Utilization Drops Despite Cigarette Surge

Domestic disappearance of flue-cured tobacco (types 11-14) during 1970/71 may fall 3-4 percent below last season's 665 million pounds. During the first half of this marketing year, domestic disappearance ran 6 percent less, despite the surge in cigarette production. Cigarette output for last July through January was 7-1/2 percent higher than in the comparable period of 1969/70. Manufacturers are evidently continuing to reduce the tobacco content of cigarettes.

Exports so far this marketing year, are substantially below the year-earlier period, lowering the season's flue-cured prospects a tenth. July-January exports reached 334 million pounds, 10 percent below those in the same period of 1969/70. Lowered shipments to the United Kingdom accounted for most of the decline. Heavier competition from other suppliers prevented any U.S. gains in several other European countries. Japan's big gain provided a bright spot in the export picture. West Germany's takings were up from the low level a year ago.

Carryover Rising

Based on prospects for lower domestic use and exports, the carryover of flue-cured tobacco on July 1, 1971, will rise 50-60 million pounds above the 1.95 billion of mid-1970. In contrast, the carryover fell by 147 million pounds in 1969/70. This season's increase will occur largely in CCC loan stocks (table 15).

In the 7 months ended February 28, 1971, there were 48 million pounds sold from government loan stocks, compared with 76 million for the same period last year. Unsold loan stocks on hand March 1, 1971, were above a year earlier.

1971 Acreage Declines

The national base quota is the same as 1970, but decreased poundage allocations (reflecting the smaller

U.S. flue-cured tobacco exports
principal countries, 1969-71
(export weight)

Country	July-January		
	1968-1969	1969-1970	1970-1971
	<i>Million pounds</i>		
United Kingdom ..	74	89	70
West Germany	45	36	42
Japan	31	33	40
Netherlands	16	11	9
Ireland	8	5	4
Thailand	15	16	15
Australia	11	15	7
Belgium	7	7	6
Denmark	6	9	5
Switzerland	5	7	5
Sweden	7	6	8
South Vietnam ...	5	3	6
All others	36	49	38
Total*	266	286	255

*Based on unrounded data.

carry forward of last year's net undermarketings) means a smaller crop. Undermarketings in 1970 exceeded overmarketings by 12.5 million pounds. Growers can make up 6 million pounds of their undermarketings, but sales from the 1971 crop will still fall substantially short of 1970's level. Last season, growers could make up 131 million pounds of undermarketings from 1969.

According to March 1 intentions, 538,700 acres will be grown, 8 percent below last year. Type 12 growers (Eastern North Carolina) account for one-half of the cutback. On the intended acreage, an average yield per acre—which takes into account a modified trend due to the restraints of farm poundage quotas—indicates a 1971 production of about 1 billion pounds. A crop this size would be about 15 percent below 1970, when yields were the second highest on record.

The projected crop plus the tentative carryover gives a 1971/72 supply about 3 percent under the 3.13 billion pounds available in the current marketing year.

BURLEY

Poundage Program Considered

The Senate Agriculture and Forestry Committee has voted to report a bill authorizing a poundage program for burley tobacco. If enacted, and then if favored by at least two-thirds of burley growers voting in referendum, the estimated 1971 marketing quota would be below last year's marketings. The proposed poundage program would abolish minimum acreage provisions and for the first time allow growers to lease and transfer quotas within counties. If growers disapprove the control program then allotments and price supports are not in effect for 1971, and USDA will hold another vote in 1972.

Last December, USDA indicated the present marketing quota law required USDA to cut burley acreage allotments not protected by minimum provisions

Table 15.--Flue-cured tobacco, types 11-14: Domestic supplies, disappearance, season average price, and price support operations for specified periods

(Farm-sales weight)							
Year	Production	Stocks, July 1	Supply	Disappearance ^{1/}			
				Total	Domestic	Exports	
<u>Million pounds</u>							
1960	1,251	2,106	3,357	1,267	792	475	
1961	1,258	2,090	3,348	1,267	782	485	
1962	1,408	2,081	3,489	1,208	777	431	
1963	1,371	2,282	3,653	1,267	769	498	
1964	1,388	2,386	3,774	1,219	775	444	
1965	1,059	2,555	3,614	1,175	752	423	
1966	1,108	2,439	3,547	1,274	687	587	
1967	^{2/} 1,250	2,273	3,523	1,221	687	534	
1968	^{2/} 996	2,302	3,298	1,198	673	525	
1969	1,053	2,100	3,153	1,200	665	535	
1970 ^{3/}	^{2/} 1,178	1,953	3,131				
Placed under Government loan							
Average price per pound		Price support level ^{4/}	Quantity	Percentage of crop	Remaining in Government loan stocks on February 28, 1971 ^{5/}		
Cents			Million pounds	Percent	Million pounds		
1960	60.4	55.5	51.8	4.1	0		
1961	64.3	55.5	70.3	4.6	0		
1962	60.1	56.1	237.2	16.8	0		
1963	58.0	56.6	277.2	20.2	80.8		
1964	58.5	57.2	285.6	20.7	87.0		
1965	64.6	57.7	71.5	6.8	33.9		
1966	66.9	58.8	74.6	6.8	56.7		
1967	64.2	59.9	282.1	22.6	205.0		
1968	66.6	61.6	128.8	12.9	108.7		
1969	72.4	63.8	97.6	9.3	92.8		
1970	^{3/} 71.9	66.6	144.2	12.2	140.8		
1971		*69.4					
Total	---	---	1,720.9	---	805.7		

^{1/} Year beginning July 1. ^{2/} Sales. ^{3/} Subject to revision. ^{4/} For 1960 set at 1959 level; from 1961 on, adjusted to reflect relative change between 1959 parity index and average of parity index for 3 most recent calendar years. ^{5/} As reported by Flue-cured Tobacco Cooperative Stabilization Corp.; the unstemmed loan stocks on the packed-weight basis average about 11 percent less than farm-sales weight figures. * Estimated.

Table 16.--Burley tobacco, type 31: Domestic supplies, disappearance, season average price, and price support operations for specified periods

(Farm-sales weight)

Year	Production	Stocks, October 1	Supply	Disappearance ^{1/}		
				Total	Domestic	Exports
<u>Million pounds</u>						
1960	485	1,191	1,676	549	508	41
1961	580	1,127	1,707	570	525	45
1962	675	1,137	1,812	584	531	53
1963	755	1,228	1,983	571	514	57
1964	620	1,412	2,032	616	560	56
1965	586	1,416	2,002	607	550	57
1966	587	1,395	1,982	600	544	56
1967	541	1,382	1,923	599	546	53
1968	563	1,324	1,887	571	516	55
1969	591	1,316	1,907	564	506	58
1970 ^{2/}	*560	1,343	1,903			
<u>Placed under Government loan</u>						
	Average price per pound	Price support level ^{3/}	Quantity	Percentage of crop	Remaining in Government loan stocks on February 28, 1971 ^{4/}	
	Cents		Million pounds	Percent	Million pounds	
1960	64.3	57.2	8.4	1.7	0	
1961	66.5	57.2	10.3	1.8	0	
1962	58.6	57.8	63.5	9.4	4.1	
1963	59.2	58.3	202.3	26.8	46.1	
1964	60.3	58.9	110.4	17.8	49.7	
1965	67.0	59.5	42.2	7.2	35.5	
1966	66.9	60.6	62.5	10.6	50.1	
1967	71.8	61.8	64.2	11.9	55.8	
1968	73.7	63.5	56.2	10.0	54.7	
1969	69.6	65.8	158.5	26.8	156.5	
1970	*72.1	68.6	47.7	8.5	47.7	
1971		**71.5				
Total	---	---	826.2	---	5/500.2	

^{1/} Year beginning October 1. ^{2/} Subject to revision. ^{3/} For 1960 set at 1959 level; from 1961 on, adjusted to reflect relative change between 1959 parity index and average of parity index for 3 most recent calendar years. ^{4/} Actual loan stocks on a packed-weight basis average about 11 percent less than these farm-sales weight figures. ^{5/} About 6 million pounds of these holdings have been sold. * Indicated by sales data. ** If two-thirds or more growers voting in a referendum approve marketing quotas on their 1971-73 crops.

Table 17.--Burley tobacco: Gross auction sales, and average price, by States, crops of 1969 and 1970

State	1970 crop		1969 crop	
	Sales	Average price	Sales	Average price
	Million pounds	Cent per pound	Million pounds	Cent per pound
Kentucky	402.2	72.12	429.6	69.72
Tennessee	102.9	72.56	106.5	68.52
Virginia	25.1	71.87	27.8	69.91
North Carolina	17.8	72.80	19.4	68.22
West Virginia	5.0	70.76	5.4	68.03
Indiana	12.2	71.42	12.1	70.41
Ohio	10.2	71.88	10.8	69.23
Missouri	5.3	68.01	5.2	70.10
Total all States	580.6	72.14	616.7	69.47

1/ Computed From unrounded data.

Table 18.--Burley tobacco: Price spreads among specified grades average 1955-59, annual 1960-70

Period	Average price of C4F	Cents per pound lower than C4F						
		X4F	C4R	B4F	B4FR	B4R	T4R	NIG
		<u>Cents per pound</u>						
Average: 1955-59	67	1	2	3	5	7	11	25
1960	70	1	2	2	5	9	13	25
1961	71	1	4	3	5	8	10	15
1962	71	1	4	5	10	17	22	37
1963	71	1	6	5	12	20	26	42
1964	72	1	6	5	11	18	24	40
1965	73	1	6	5	8	13	15	28
1966	74	1	6	4	9	13	13	25
1967	75	0	3	4	7	8	9	14
1968	75	1	2	2	3	4	5	10
1969	75	1	1/6	5	8	12	13	19
1970	77	0	1/5	3	5	8	10	18

1/ C4K grade.

at least 25 percent. Minimum acreage provisions had been in effect since World War II. By 1970 about 60 percent of the allotments were at the statutory minimum of one-half acre or less. With controls on acreage, growers increased yields to offset acreage reductions. Burley yields trended upward, last year averaging the highest in history. The law required USDA to announce the burley quota by February 1, but Congress twice postponed the 1971 announcement while the new legislation was considered.

The current prospective plantings, if realized with an average yield adjusted for trend, means production would total 3 percent less. The indicated carryover would result in a 1971/72 supply fractionally below the 1.9 billion pounds of the current marketing year.

If growers approve marketing quotas, the price support level will be 71.5 cents a pound—2.9 cents above the average for the 1970 crop.

Supplies Remain Large

The 1970/71 burley tobacco supply is about 1.9 billion pounds, fractionally below last year but still equal to 3.4 times estimated disappearance. The October 1 carryover was up, although last year's crop was smaller (table 16).

By February 28, government loan stocks of burley increased by about 13 million pounds above the 487 million of a year earlier. The current marketing year is the fifth year of rising loan stocks.

Carryover May Change Little

Domestic burley use in 1970/71 may equal the 507 million pounds of last marketing year if cigarette production stays about the same.

Following record burley exports in 1969/70, shipments in the first 4 months of the current marketing year (October 1970-January 1971) fell 5 million pounds. This was due to a sizable decrease in takings by Italy, where local production has increased sharply in recent years. Switzerland also reduced its takings sharply but West Germany took more.

Overall, foreign burley production in 1970 gained 54 million pounds from the previous season's record.

If the downtrend in burley disappearance continues the U.S. carryover probably will not change much from the 1,343 million pounds of last October 1. But loan stocks will make up an increasing share.

Average Price Higher

The 1970 burley crop brought the second highest average price on record but sales volume dropped below 1969. Grade price averages were higher, but the general quality declined. Total sales value was the fourth largest on record. Trade purchases rebounded, so government loan placements decreased to the lowest level in 5 years.

Auction prices for the 1970 burley crop (including resales) averaged 72.1 cents a pound—more than 2.6

cents above the previous year's level. Average change by States ranged from a 2 cent decline to a 4½ cent gain (table 17).

Markets opened November 23, and the season ended February 17 at Lexington, Ky. Sales took 9 fewer days than for the 1969 crop although gross auction sales dropped 6 percent. About 85 percent of the estimated crop was sold by December 17, when markets closed for the holidays.

For most grades, prices were up 2 to 5 cents a pound. Smaller changes occurred in top quality grades. As a result, price spreads between major cigarette grades and medium-and-heavy-bodied grades again widened as they have for several years (table 18).

MARYLAND

Auctions Open April 13

Auctions for the 1970 crop of Maryland tobacco (type 32) open April 13 and continue through June 25. Sales will also be held by the hogshead market. Maryland tobacco does not receive government price support.

The 1969 crop (marketed mostly in 1970) brought the highest average price on record, 75.1 cents a pound. This was 8 percent above the preceding season, as marketings dropped.

1970/71 Supplies at 22-year Low

Last year's disappearance brought the January 1 stocks down 17 million pounds. Growers produced an estimated 27 million pounds last year, so this year's supply is 19 percent below 1969/70 and the lowest since 1948/49 (table 19). Use may decline from the past marketing year's high level due to record-high prices and reduced supplies.

During the first third of the current marketing year (October 1970-January 1971) exports were 3.3 million pounds—0.7 million less than a year earlier. Switzerland remains the principal outlet but took less than in the same 1969/70 period. Swiss cigarette manufacturers are selling more American-type blends while the share held by the Maryland blend is declining.

More Output in Prospect

Based on farmers March 1 intentions, they will raise about 28,000 acres this year—8 percent more than in 1970. As in the past 5 years, acreage allotments are not in effect.

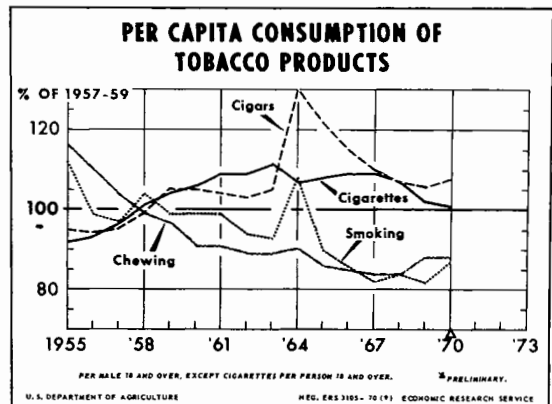
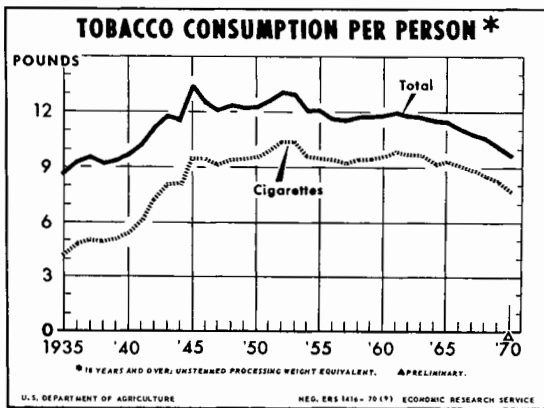
Assuming an average yield, about 29 million pounds would be produced from the 1971 intended acreage—about 7½ percent above the estimated 1970 outturn. Carryover next January 1 will likely fall below this year's 50 million pounds. So the 1971/72 supply—projected output plus tentative carryover—may total below this year's 77 million pounds.

Table 19.--Maryland tobacco, type 32: Acreage, yield, production, carryover, supply, disappearance, season average price, and price support operations, 1965-71

(Farm-sales weight)							
Marketing year	Acreage harvested	Yield per acre	Production	Stocks, following January 1 --			Total supply
				Manufacturers and other	Under loan	Total	
	Thousand acres	Pounds		Million pounds			
1965	33.5	1,150	38.5	70.0	20.2	90.1	128.6
1966	35.0	1,030	36.0	68.2	21.5	89.7	125.7
1967	31.5	1,030	32.4	68.2	18.1	86.3	118.7
1968	30.0	1,065	32.0	74.5	7.0	81.5	113.5
1969	28.0	1,000	28.0	66.7	0	66.7	94.7
1970 ^{1/}	26.0	1,040	27.0	50.1	0	50.1	77.1
Disappearance ^{2/}				Average price	Price support	Placed under Government loan	
Total	Domestic	Exports	per pound	level	Quantity	Percentage of crop	
Million pounds				Cents	Million pounds	Percent	
1965	35.7	24.7	11.0	65.5	52.8	2.7	7.0
1966	40.2	23.7	16.5	48.6		No price support	
1967	36.0	20.3	15.7	62.4		No price support	
1968	48.7	38.3	10.4	69.8		No price support	
1969	41.3	29.1	12.2	75.1		No price support	
1970	Auctions scheduled to start April 13, 1971					No price support	
1971						No price support	

^{1/} Subject to revision.

^{2/} Year beginning October 1.



FIRE-CURED

Record-High Prices

The Kentucky-Tennessee crop (types 22-23) sold for record-high prices but sales volume declined. The quality of offerings improved a little over 1969 for type 22 but was lower for type 23. Lower quality and slightly lower prices after substantial gains for the previous 2 years marked sales for the 1970 Virginia fire-cured crop (type 21). Auction sales began in early December for Virginia fire-cured and in mid-January for types 22-23. Final sales were held in February.

Most grade averages were lower for type 21, but higher for types 22-23. Deliveries to associations under the government loan program were the lowest on record. The average price of 54 cents per pound paid for the 1970 crop (types 21-23) was up 10 percent from the previous year. Volume of producer marketings dropped 9½ percent.

Due to smaller carryover and lower production, marketing year supplies of fire-cured types are down about 8 percent.

Fire-cured and dark air-cured tobacco
loan stocks, 1969-71
(Farm-sales weight)

Type	End of February		
	1969	1970	1971
	<i>Million pounds</i>		
Virginia type 21	2.9	1.6	1.4
Ky.-Tenn., types 22-23	21.8	12.5	10.1
Ky.-Tenn., types 35-36	16.2	19.5	19.2

Exports Turn Down

During the first third of the current marketing year (October 1970-January 1971) exports of Kentucky-Tennessee fire-cured dropped to 8.3 million pounds from the year-earlier level of 9.6 million. The decrease was in shipments to the Netherlands, the major destination. Switzerland also decreased its takings. Exports of Virginia fire-cured gained with a sizable shipment to Syria.

World fire-cured production gained about 9 percent last year as Malawi's production recovered. So U.S. exports may not gain this marketing year. Here in the United States, with snuff and plug chewing output trending down, domestic use of fire-cured types in 1970/71 will do well to hold at last season's level (table 20).

Prospective Acreage Up

Acreage of fire-cured types in 1971 will gain 4 percent according to farmers' intentions as of March 1,

with a 2 percent gain for type 21 and a 5 percent gain for types 22-23.

Acreage allotments for most farms growing Virginia fire-cured (type 21) were increased 10 percent. Kentucky-Tennessee allotments were held the same. The 1971 fire-cured crop will receive government price support averaging 48.5 cents a pound—1.9 cents above last year.

If the yield per acre is average (with allowance for trend) production of the combined fire-cured types would total around 42 million pounds—some 14 percent above 1970 crop marketings.

Carryover of fire-cured on October 1, 1971, may be around 65 million pounds—12 million less than last October 1. Such stocks, plus the projected crop, would provide a supply some 5-6 percent below the 110 million pounds for the current year.

DARK AIR-CURED

Auction Prices Recover

Better quality and higher prices prevailed for sales of the 1970 crop of dark air-cured tobacco (types 35-37). Volume was down for each type. Auction sales started in early December and closed in February.

Most grade averages were higher and government loan placement fell sharply. Compared with lower levels the previous season, the price average gained 7 cents per pound for type 35, which had the largest decrease in sales volume. The increase was 3.5 cents for type 36 and 0.8 cent for type 37.

The 1970/71 supply of dark air-cured, at 73½ million pounds, is down about one-tenth. Supplies of both types 35-36 and Virginia sun-cured are lower (table 21).

Domestic Use Lower, Exports Gain

Plug, twist, and fine-cut chewing tobaccos are the chief domestic outlets for dark air-cured tobacco. Output of these products has trended down, and the decline continued in October-December 1970 (first quarter of the current marketing year).

In October 1970-January 1971, exports of One Sucker leaf were 63,000 pounds below a year earlier. Tunisia did not take any in contrast to sizable receipts in the corresponding period a year ago. Exports of Green River declined. A large part of U.S. exports of dark air-cured tobacco is in the form of Black Fat—a semiprocessed product. The rebound of these exports to African destinations continues. In October 1970-January 1971, Black Fat exports were 143,000 pounds above the year-earlier level.

Intended Acreage Down

Farmers this year plan to harvest 4 percent less acreage of dark air-cured (including sun-cured). For most farms growing these types, acreage allotments are the same as in 1970. Based on an average yield per acre, with

Table 2Q—Fire-cured tobacco, Kentucky-Tennessee types 22-23, and Virginia fire-cured type 21: Acreage, yield, production, carryover, supply, disappearance, season average price, and price support operations, 1965-71

(Farm-sales weight)							
Marketing year beginning October 1	Acreage harvested	Yield per acre	Production	Beginning stocks, October 1 --			Total supply
				Manufacturers and other	Under loan	Total	
	Thousand acres	Pounds		Million pounds			
Kentucky-Tennessee fire-cured, types 22-23							
1965	23.2	1,574	36.6	72.5	32.3	104.8	141.4
1966	21.0	1,919	40.2	69.9	25.9	95.8	136.0
1967	17.3	1,702	29.5	64.0	27.3	91.3	120.8
1968	17.9	1,822	32.6	57.3	21.5	78.8	111.4
1969	19.0	1,797	34.1	61.1	11.6	72.7	106.8
1970 1/	17.9	1,843	*30.7	54.1	9.7	63.8	94.5
Virginia fire-cured, type 21							
1965	7.6	1,260	9.6	12.3	3.3	15.6	25.2
1966	6.0	1,255	7.5	13.4	3.5	16.9	24.4
1967	5.4	1,290	7.0	12.1	2.7	14.8	21.8
1968	4.9	1,205	5.9	8.9	2.8	11.7	17.6
1969	5.0	1,340	6.7	8.0	1.9	9.9	16.6
1970 1/	5.0	1,300	*6.2	8.4	1.4	9.8	16.0
Disappearance							
				Average price	Price support level	Placed under Government loan	
Total		Domestic	Exports	per pound		Quantity	Percentage of crop
						Million pounds	Percent
Kentucky-Tennessee fire-cured, types 22-23							
1965	45.6	18.0	27.6	43.6	40.4	2.3	6.3
1966	44.7	21.0	23.7	42.2	41.1	6.3	15.7
1967	42.0	14.9	27.1	46.2	41.9	.8	2.7
1968	38.7	2/19.1	19.6	51.1	43.1	.4	1.2
1969	43.0	18.5	24.5	48.1	44.6	1.9	5.6
1970				*54.5	46.6	3/	.1
1971				** 48.5			
Virginia fire-cured, type 21							
1965	8.3	3.0	5.3	39.9	40.4	1.0	10.4
1966	9.6	2.3	7.3	41.2	41.1	.6	8.0
1967	10.1	3.4	6.7	40.9	41.9	.7	10.1
1968	7.7	3.0	4.7	46.9	43.1	.2	3.4
1969	6.8	1.7	5.1	53.1	44.6	.1	1.5
1970				*52.0	46.6	.1	2.0
1971				** 48.5			

1/ Subject to revision. 2/ Includes 4.7 million pounds fire loss, April 1969. 3/ Less than 50,000 pounds. * Indicated by sales data. ** Estimated.

Table 21.--Dark air-cured tobacco, types 35-36, and Sun-cured tobacco type 37: Acreage, yield, production, carryover, supply, disappearance, season average price, and price support operations, 1965-71

(Farm-sales weight)							
Marketing year beginning October 1	Acreage harvested	Yield per acre	Production	Beginning stocks			Total supply
				Manufacturers and other	Under loan	Total	
	Thousand acres	Pounds		Million pounds			
Dark air-cured, types 35-36							
1965	11.3	1,639	18.5	40.6	21.3	61.9	80.4
1966	10.7	1,987	21.3	41.0	19.6	60.6	81.9
1967	9.5	1,629	15.5	39.2	21.3	60.5	76.0
1968	9.8	1,831	18.0	41.1	17.1	58.2	76.2
1969	10.1	1,793	18.1	44.1	15.0	59.1	77.2
1970 <u>1/</u>	8.5	1,879	*15.5	35.5	18.2	53.7	69.2
Sun-cured, type 37							
1965	1.8	1,105	2.0	4.3	0	4.3	6.3
1966	1.4	1,065	1.5	4.3	0	4.3	5.8
1967	1.2	1,090	1.3	4.2	0	4.2	5.5
1968	1.1	1,095	1.2	3.9	0	3.9	5.1
1969	1.1	1,225	1.3	3.8	0	3.8	5.1
1970 <u>1/</u>	1.0	1,150	1.1	3.3	0	3.3	4.4
Disappearance : Average : Price : Placed under							
Total : Domestic : Exports :			price	support	Government loan		
			per pound	level	Quantity	Percentage of crop	
---- Million pounds ----			Cents		Million pounds	Percent	
Dark air-cured, types 35-36							
1965	19.8	16.2	3.6	37.0	35.9	3.2	17.3
1966	21.4	17.0	4.4	37.3	36.6	4.7	22.1
1967	17.8	14.8	3.0	40.8	37.3	1.4	9.0
1968	17.1	15.0	2.1	47.4	38.3	.7	3.9
1969	23.5	21.2	2.3	40.3	39.7	4.8	26.5
1970				*46.0	41.4	1.0	6.7
1971					**43.1		
Sun-cured, type 37							
1965	2.0	1.7	.3	39.2	35.9	<u>2/75</u>	3.8
1966	1.6	1.2	.4	42.3	36.6	<u>2/26</u>	1.7
1967	1.6	1.2	.4	45.2	37.3	<u>2/25</u>	1.9
1968	1.3	1.1	.2	53.2	38.3	<u>2/1</u>	.1
1969	1.8	1.5	.3	52.8	39.7	<u>2/1</u>	.1
1970				*53.8	41.4	<u>2/4</u>	.4
1971					**43.1		

1/ Subject to revision. 2/ Quantity placed under Government loan reported in thousand pounds.

* Indicated by sales data. ** Estimated.

allowance for trend, 1971 production of dark air-cured and sun-cured would be nearly 17 million pounds—about the same as marketings from the 1970 crop.

Because utilization may exceed last season's marketings, the carryover of dark air- and sun-cured types next October 1 probably will decline from the 57 million pounds last October 1. The indicated carryover plus this year's projected crop would result in a smaller supply.

CIGAR TOBACCO

Prices and Price Support

Buyers paid less for the 1970 filler crop, but more for binder types. A sizable proportion of the Connecticut binder crop again went under loan. Season average price and production data for the 1970 cigar tobacco crops are scheduled for release May 10.

The overall price support levels for the 1971 crops of cigar leaf tobacco are about 4.2 percent higher than for the 1970 crops. (Statistical Summary).

For many years, the Puerto Rican Government has allocated annual poundage quotas to cigar filler growers and made supplemental payments. The current supplemental rate is expected to be 16 cents per pound. Government price support is not in effect for Pennsylvania tobacco (type 41) and shade-grown cigar wrapper (types 61-62).

Cigar Filler and Binder Allotments

For most farms growing cigar filler and binder tobacco (types 42-44, 53-55) USDA set 1971 acreage allotments about the same as in 1970. Because some farms went out of production, the national acreage allotment is 3 percent smaller than in 1970. Also, USDA reallocated allotments from growers who did not wish to use their allocated acreage this year to growers who want to increase their crop.

In January, USDA raised allotments for most farms growing cigar binder (types 51-52) 10 percent above 1970. These Connecticut-Massachusetts supplies continue substantially below normal and again this year USDA terminated quotas for types 51-52.

Cigar leaf tobacco loan stocks, 1969-71

Type	(Farm-sales weight)		
	End of February		
	1969	1970	1971
	<i>Million pounds</i>		
Ohio, 42-44	0	0.1	0
Puerto Rican, 46	1.5	1.5	4.1
Conn. Valley, 51-52	1.5	2.1	2.6
Southern Wis., 54 . . . . .	.2	0	0
Northern Wis., 55	3.6	0	0
Total	6.8	3.7	6.7

U.S. and Puerto Rican Supplies Lower

Supplies of U.S. and Puerto Rican cigar tobacco are down 8 percent from the past marketing year. Production was lower but most of the decline occurred in carryover. Cigar filler and binder largely accounted for the drop (table 22).

March 1 grower intentions indicate smaller acreages of cigar tobacco this season. Based on average yield, the crop may be down 4 percent.

The prospective acreage decline is among cigar filler and wrapper types. Filler has experienced the weakest market in recent years. With soaring prices, Wisconsin tobacco growers have made a comeback in acreage. After 2 years of sharp reductions, manufacturers apparently need to further reduce cigar wrapper acreage.

The January 1, 1971, stocks of Puerto Rican tobacco (on the Island and in the United States) totaled 19 million pounds—5 million below a year earlier and only four-tenths of the high level 4 years earlier. The crop, planted in late 1970 for harvest in early 1971, is

Foreign-grown cigar leaf tobacco: U.S. imports and stocks, 1968-71

(Farm-salesweight)

Country of origin	General imports			Imports for consumption			Dealers and manufactures stocks, January 1-		
	1968	1969	1970	October-September	October-January		1969	1970	1971
				1969-70	1969-70	1970-71			
	<i>Million pounds</i>								
Philippines	36.0	40.1	32.7	35.3	11.7	12.2	40.0	38.4	40.4
Dominican Rep.	14.8	10.1	11.4	10.1	3.5	3.8	11.3	10.6	9.8
Brazil	6.5	4.9	7.4	6.9	2.4	1.8	9.2	7.3	8.0
Colombia	6.4	10.2	5.0	6.9	2.7	1.9	9.6	9.4	8.6
Paraguay	3.1	12.0	4.2	2.4	1.5	.8	4.0	10.0	9.0
Mexico	2.6	4.2	4.7	3.8	1.1	1.5	4.4	4.9	6.7
Indonesia . . . . .	.9	.7	4.2	2.8	.8	2.2	3.6	2.8	2.9
All others	12.5	14.9	20.3	10.5	3.3	5.4	8.8	11.4	13.5
Total	82.8	97.1	89.9	78.7	27.0	29.6	90.9	94.8	98.9

Table 22.--Cigar tobacco, types 41-62: Domestic supplies, disappearance, and season average prices, for 1965-70

Crop year	(Farm-sales weight)								
	Acreage harvested	Yield per acre	Supply			Disappearance			Average price per pound to growers
			Production	Beginning stocks 1/	Total supply	Total	Domestic	Exports	
Thous. acres	Pounds	Million pounds							Cents
Pennsylvania Seedleaf Filler (type 41)									
1965	27.0	1,900	51.3	129.4	180.7	53.0	51.2	1.8	24.0
1966	23.0	1,675	38.5	127.7	166.2	53.9	52.4	1.5	25.0
1967	21.0	1,825	38.3	112.3	150.6	41.9	41.3	.6	28.0
1968	21.0	1,775	37.3	108.7	146.0	40.9	40.0	.9	30.0
1969	20.0	1,875	37.5	105.1	142.6	45.3	44.7	.6	30.0
1970 2/	19.0	1,800	34.2	97.3	131.5				
Ohio, Miami Valley Filler (type 42-44)									
1965	3.7	1,465	5.4	17.0	22.4	6.2	6.2	---	26.2
1966	3.2	1,885	6.0	16.2	22.2	6.7	6.7	---	28.0
1967	2.3	1,580	3.6	15.5	19.1	6.2	6.2	---	29.0
1968	2.0	1,670	3.4	12.9	16.3	5.4	5.4	---	31.0
1969	1.7	1,650	2.8	10.9	13.7	4.7	4.7	---	32.5
1970 2/	1.7	1,650	2.8	9.0	11.8				
Puerto Rico Filler (type 46) 3/									
1965	17.0	951	16.2	62.6	78.8	27.0	27.0	---	4/32.1
1966	9.0	1,338	12.0	51.8	63.8	23.3	23.3	---	4/31.3
1967	7.6	1,419	10.8	40.5	51.3	16.9	16.9	---	4/33.1
1968	6.0	1,282	7.6	34.4	42.0	16.2	16.2	---	4/33.3
1969	4.7	1,302	6.1	25.8	31.9	12.6	12.6	---	4/33.6
1970 2/	4.3	1,265	5.4	19.3	24.7				
Total Cigar Filler (types 41-46)									
1965	47.7	1,528	72.9	209.0	281.9	86.2	84.4	1.8	26.0
1966	35.2	1,608	56.5	195.7	252.2	83.9	82.4	1.5	26.7
1967	30.9	1,707	52.7	168.3	221.0	65.0	64.4	.6	29.1
1968	29.0	1,666	48.3	156.0	204.3	62.5	61.6	.9	30.5
1969	26.4	1,759	46.4	141.8	188.2	62.6	62.0	.6	30.6
1970 2/	25.0	1,696	42.4	125.6	168.0				
Connecticut Valley Binder (types 51-52)									
1965	2.6	1,910	5.0	21.3	26.3	7.0	4.9	2.1	45.9
1966	1.8	2,111	3.8	19.3	23.1	6.7	5.1	1.6	51.2
1967	1.5	1,819	2.7	16.4	19.1	7.9	5.7	2.2	54.5
1968	1.6	1,808	2.8	11.2	14.0	5.1	4.7	.4	59.5
1969	1.6	1,434	2.3	8.9	11.2	4.2	3.9	.3	58.2
1970 2/	1.7	1,847	3.1	7.0	10.1				
Southern Wisconsin Binder (type 54)									
1965	4.7	1,805	8.5	22.7	31.2	8.8	8.8	---	29.7
1966	3.9	1,895	7.4	22.4	29.8	9.1	9.1	---	34.3
1967	3.8	1,905	7.2	20.7	27.9	8.0	8.0	---	34.4
1968	3.7	1,990	7.4	19.9	27.3	7.7	7.7	---	36.8
1969	3.7	1,740	6.4	19.6	26.0	9.3	9.3	---	40.2
1970 2/	4.4	1,950	8.6	16.7	25.3				
Northern Wisconsin Binder (type 55)									
1965	6.2	1,735	10.8	26.8	37.6	9.4	9.1	.3	28.9
1966	5.4	1,635	8.8	28.2	37.0	7.7	7.4	.3	32.4
1967	4.5	1,975	8.9	29.3	38.2	9.3	8.9	.4	34.1
1968	4.0	1,670	6.7	28.9	35.6	14.9	14.5	.4	37.9
1969	3.7	1,810	6.7	20.7	27.4	8.8	8.5	.3	42.5
1970 2/	4.4	1,900	8.4	18.6	27.0				

See footnotes at end of table.

Continued --

Table 22.--Cigar tobacco, types 41-62: Domestic supplies, disappearance, and season average prices, for 1965-70--Cont.

Crop year	(Farm-sales weight)									
	Acreage harvested	Yield per acre	Supply			Disappearance			Average price per pound to growers	
			Production	Beginning stocks ^{1/}	Total supply	Total	Domestic	Exports		
Thous. acres	Pounds	Million pounds			Cents					
Total Wisconsin Binder (types 54-55)										
1965	10.9	1,765	19.3	49.5	68.8	18.2	17.9	.3	29.3	
1966	9.3	1,744	16.2	50.6	66.8	16.8	16.5	.3	33.3	
1967	8.3	1,943	16.1	50.0	66.1	17.3	16.9	.4	34.2	
1968	7.7	1,824	14.1	48.8	62.9	22.6	22.2	.4	37.3	
1969	7.4	1,775	13.1	40.3	53.4	18.1	17.8	.3	41.4	
1970 ^{2/}	8.8	1,925	16.9	35.3	52.2					
Total Cigar Binder (types 51-55)										
1965	13.5	1,793	24.3	70.8	95.1	25.2	22.8	2.4	32.7	
1966	11.1	1,804	20.0	69.9	89.9	23.5	21.6	1.9	36.7	
1967	9.8	1,924	18.8	66.4	85.2	25.2	22.6	2.6	37.1	
1968	9.3	1,821	16.9	60.0	76.9	27.7	26.9	.8	41.0	
1969	9.0	1,714	15.4	49.2	64.6	22.3	21.7	.6	43.9	
1970 ^{2/}	10.5	1,912	20.1	42.3	62.4					
Connecticut Valley Shade-grown (type 61)										
1965	9.3	1,567	14.6	14.3	28.9	12.6	9.3	3.3	250.0	
1966	8.8	1,555	13.7	16.3	30.0	14.0	10.5	3.5	295.0	
1967	8.5	1,124	9.6	16.0	25.6	12.9	9.6	3.3	360.0	
1968	8.4	1,215	10.2	12.7	22.9	10.8	9.1	1.7	280.0	
1969	6.3	1,288	8.1	12.1	20.2	8.0	7.0	1.0	400.0	
1970 ^{2/}	6.0	1,329	8.0	12.2	20.2					
Georgia-Florida Shade-grown (type 62)										
1965	6.3	1,321	8.3	7.3	15.6	7.4	5.5	1.9	225.0	
1966	5.8	1,265	7.3	8.2	15.5	6.8	6.1	.7	185.0	
1967	5.1	1,573	8.0	8.7	16.7	7.9	6.3	1.6	245.0	
1968	5.0	1,556	7.9	8.8	16.7	9.2	7.1	2.1	270.0	
1969	5.0	1,569	7.8	7.5	15.3	6.1	5.2	.9	280.0	
1970 ^{2/}	3.6	1,590	5.6	9.2	14.8					
Total Shade-grown (types 61-62)										
1965	15.6	1,468	22.9	21.6	44.5	20.0	14.8	5.2	241.0	
1966	14.6	1,440	21.0	24.5	45.5	20.8	16.6	4.2	257.0	
1967	13.6	1,292	17.6	24.7	42.3	20.8	15.9	4.9	308.0	
1968	13.4	1,343	18.1	21.5	39.6	20.0	16.2	3.8	275.7	
1969	11.3	1,411	15.9	19.6	35.5	14.1	12.2	1.9	341.0	
1970 ^{2/}	9.6	1,426	13.6	21.4	35.0					
Grand Total Cigar Tobacco (types 41-62)										
1965	76.8	1,562	120.1	301.4	421.5	131.4	122.0	9.4	68.3	
1966	60.9	1,603	97.5	290.1	387.6	128.2	120.6	7.6	78.2	
1967	54.3	1,642	89.1	259.4	348.5	111.0	102.9	8.1	85.7	
1968	51.7	1,610	83.3	237.5	320.8	110.2	104.7	5.5	85.9	
1969	46.7	1,664	77.6	210.6	288.3	99.0	95.9	3.1	96.7	
1970 ^{2/}	45.1	1,689	76.1	189.3	265.4					

^{1/} October 1 for types 41-55; July 1 for types 61-62.

^{2/} Subject to revision.

^{3/} Puerto Rican planting occurs late in calendar year.

^{4/} Excludes payment by Puerto Rican Government.

tentatively estimated at 5½ million pounds—further below last year's record-low harvest.

Less foreign cigar tobaccos arrived in the United States in 1970 than the year before. The average import value of cigar filler and scrap tobacco brought in last year was 29 cents per pound.

Domestic Use Estimate Steady

Cigar makers may sell more cigars this year than last. But due to dwindling supplies, domestic disappearance of U.S. filler types will probably fall from last marketing year's low level. Imported tobacco is a growing source of cigar filler, accounting for about six-tenths of our total filler use.

During October 1970-January 1971, cigar factories used more imported cigar tobacco (imports for consumption) than a year earlier. Of the chief sources, imports from the Dominican Republic, the Philippines, Colombia, and Brazil were larger.

For Connecticut Valley cigar binder, disappearance in 1970/71 will probably not match last season's level due to short supplies. During the first 4 months this season, exports of Connecticut Valley cigar binder declined a little with smaller exports to West Germany, the chief destination.

With steady sales prospects for scrap chewing tobacco and shifts away from competing tobacco, domestic disappearance of Wisconsin tobacco may gain. Spain took no Wisconsin tobacco during October 1970-January 1971, in contrast to a sizable shipment a year earlier.

Domestic use of cigar wrapper is declining further. Stocks on January 1 were slightly above a year earlier. Annual disappearance may equal the 1970 crop of 13½ million pounds. Thus, the July 1 carryover could approximate the year-earlier level. Exports in July 1970-January 1971 were down one-seventh. The United Kingdom took more but the Canary Islands, Canada, and West Germany took less.

Cigar tobacco: Prospective plantings and projected production, 1971

Class and type	Acreage ¹		Production ²	
	Amount	Change from 1970	Amount	Change from 1970
	<i>Thou. acres</i>	<i>Pct.</i>	<i>Mil. lb.</i>	<i>Pct.</i>
FILLER				
Pennsylvania	18.0	-5.3	33.5	-2.0
Ohio	1.7	0	2.8	0
Total	19.7	-4.8	36.3	-1.8
BINDER				
Connecticut Valley	1.7	-1.8	3.0	-5.8
Wisconsin	9.4	+6.8	18.1	+6.7
Total	11.1	+5.4	21.1	+4.8
WRAPPER				
Connecticut Valley	4.6	-24.2	6.1	-23.8
Georgia-Florida	3.0	-15.5	4.9	-12.6
Total	7.6	-20.9	11.0	-19.1
Total, all types	38.3	-6.0	68.4	-3.3

¹Based on farmers' intentions as of March 1. ²Based on average yield adjusted for trend.

Table 23.--Acreage of tobacco in the United States, by class and type, average 1958-62 and 1963-67, annual 1968-71 with percentage

Class and type	Average	Average	1968	1969	1970	1971	Percent-
	1958-62	1963-67			1/	2/	age change 1970 to 1971
	Thousand acres						Percent
Va. and N.C. Old and Middle Belts, type 11	248.9	219.6	186.8	204.0	199.0	193.0	-3.0
Eastern North Carolina, type 12	223.6	200.0	171.0	185.0	188.0	164.0	-12.8
N.C. Border and S.C. Belt, type 13	135.8	123.5	107.1	116.0	117.0	111.0	-5.1
Georgia and Florida, type 14	82.3	77.3	68.1	71.8	78.8	70.7	-10.3
Total flue-cured, types 11-14	690.6	620.3	533.0	576.8	582.8	538.7	-7.6
Virginia, Type 21	7.4	6.6	4.9	5.0	5.0	5.1	2.0
Kentucky and Tennessee, type 22	19.7	16.6	13.7	14.3	13.7	14.0	2.2
Kentucky and Tennessee, type 23	7.2	6.2	4.2	4.7	4.2	4.8	14.3
Total fire-cured, types 21-23	34.2	29.4	22.8	24.0	22.9	23.9	4.4
Burley, type 31	310.3	280.1	237.6	237.7	216.7	206.9	-4.5
Maryland, type 32	38.5	34.7	30.0	28.0	26.0	28.0	7.7
Ky.-Tenn. One Sucker, type 35	8.9	7.7	6.8	7.1	6.0	5.9	-1.7
Kentucky Green River, type 36	4.4	3.8	3.1	3.0	2.5	2.3	-8.0
Virginia sun-cured, type 37	2.0	1.5	1.1	1.1	1.0	.9	-10.0
Total dark air-cured, types 35-37	15.2	13.1	11.0	11.2	9.5	9.1	-4.2
Pennsylvania Seedleaf, type 41	30.6	25.2	21.0	20.0	19.0	18.0	-5.3
Ohio Miami Valley, type 42-44	4.0	3.4	2.1	1.7	1.7	1.7	0
Total cigar filler, types 41-44	34.6	28.6	23.1	21.7	20.7	19.7	-4.8
Connecticut Valley Broadleaf, type 51	2.0	1.6	1.2	1.2	1.3	1.3	0
Mass.-Conn. Valley Havana Seed, type 52	1.3	.7	.4	.4	.4	.4	3/-7.5
Southern Wisconsin, type 54	5.4	4.4	3.7	3.7	4.4	4.6	4.5
Northern Wisconsin, type 55	8.2	5.7	4.0	3.7	4.4	4.8	9.1
Total cigar binder, types 51-55	16.9	12.3	9.3	9.0	10.5	11.1	5.7
Connecticut Valley Shade-grown, type 61	8.0	8.6	8.4	6.3	6.0	4.6	-23.3
Georgia and Florida Shade-grown, type 62	5.6	5.5	5.1	5.0	3.6	3.0	-16.7
Total cigar wrapper, types 61-62	13.6	14.1	13.5	11.3	9.6	7.6	-20.8
Louisiana Perique, type 72	.2	.2	.2	.2	.2	.2	0
Total all types	1,154.2	1,032.8	880.3	919.9	898.8	845.1	-6.0

1/ Subject to revision. 2/ Farmers' intentions as of March 1. 3/ Computed from unrounded data. Detail may not add to total, due to rounding.

TOBACCO ACREAGE AND YIELDS--TRENDS AND PROSPECTS

by

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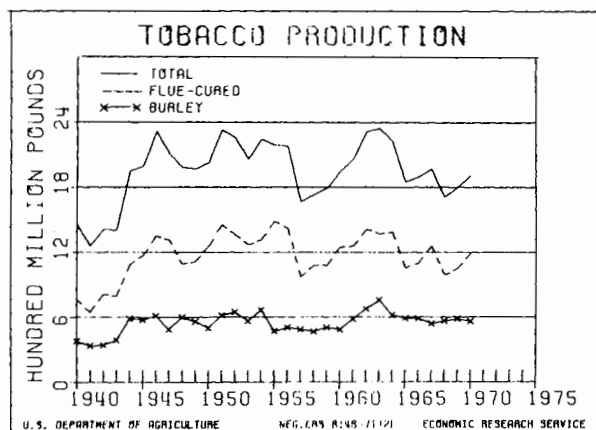
ABSTRACT: Tobacco production has fluctuated widely over the past 3 decades. Acreage harvested trended downward since 1946 and was largely determined by acreage allotments. Tobacco yields increased at an accelerated rate until acreage-poundage quotas were adopted for flue-cured in 1965. Technology and marketing quotas have affected yields. A decline in tobacco production is in prospect. Emphasis is expected to shift from yield-increasing to laborsaving technology.

KEY WORDS: Tobacco, production, acreage, yields, technology, acreage allotments.

Tobacco is being produced on fewer acres than formerly, as is true for many crops. Six classes of tobacco are produced in the United States, but two kinds—flue-cured and burley—account for about 90 percent of production.

PRODUCTION TRENDS

Over the past 3 decades tobacco production fluctuated widely, showing little or no particular trend. Several peaks and troughs occurred with production ranging between a low of 1.26 billion pounds in 1941 and a high of 2.34 billion in 1963. Both flue-cured and burley followed this general production pattern, but fluctuations were more pronounced for flue-cured.



Changes in both acreage and yields are instrumental in causing production variations. A regression analysis in logarithms of annual changes measures the relative influence of acreage and yields on production.¹ The analysis indicated for 1940-69 that acreage changes exerted more influence than yield changes, but acreage has become less influential since the early 1960's.

Relative effect of changes in acreage and yield on annual changes in tobacco production, 1940-69

Period	Acreage change	Yield change
	Percent	
1940-69	58	42
1940-63	60	40
1940-46	57	43
1946-49	76	24
1951-56	82	18
1957-63	62	38
1963-69	50	50
1965-69	52	48

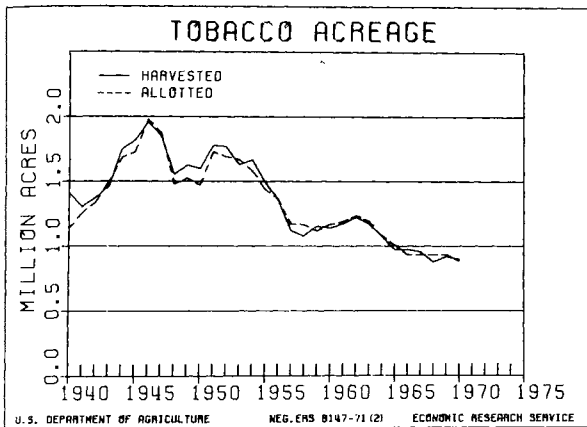
From 1940 to 1963 acreage changes were associated with 60 percent of output changes and yields 40 percent. Since 1963 the relative influence has shifted to about 50 percent for yields and 50 percent for acreage. For both flue-cured and burley tobaccos the influence of acreage change has declined, suggesting that acreage allotments have less influence on production than formerly.

ACRES HARVESTED

Tobacco acreage has trended downward since the mid-1940's. Acreage increased 15 percent from a trough in 1941 to a peak of almost 2 million acres in 1946. Since then it has declined an average of 28,000 acres per year. Variations around this trend were minor except for a peak in the early 1950's and one in the early 1960's. The record high was 2.1 million acres in 1930 when yields averaged less than 800 pounds per acre. Since then yields have nearly tripled.

¹For Methodolgy used see, Sackrin, S.M., "Measuring the Relative Influence of Acreage and Yield on Crop Production", *Agr. Econ. Res.* Vol. IX No. 4, pp. 136-39, Oct. 1957, USDA.

Major factors affecting acreage harvested are the national acreage allotments and marketing quotas. Other factors are prices received by growers and competition for labor from nonfarm employment. For 1970 USDA set allotments for 8 kinds of tobacco accounting for 94 percent of total harvested acreage. So total harvested acreage follows very closely the pattern set by allotted acreage. In all but 2 years since 1940, acreage allotted was 95 percent or more of total acreage harvested. In 12 of the last 17 years allotted acreage about equaled or exceeded harvested acreage.



For a given type of tobacco, plantings are usually a fairly constant percentage of allotted acres unless the basic program changes—such as allotment shifts or land retirement. Due to particular circumstances, some growers underplant their allotments. The law requires allotments that were less than 75 percent produced in recent years be reduced in line with plantings.

Allotments can be share-cropped, but beyond this the flexibility varies. Some allotments cannot be transferred without selling or leasing the farmland. For certain types of tobacco, allotments can be leased and transferred, or sold within counties. However, owners sometimes have difficulty finding renters especially on small acreages.

Prices that farmers receive for their products usually influence their production decisions. Returns per acre for tobacco are relatively high compared to alternative crops; therefore changes in tobacco prices probably have had less influence on farmers' decisions than is true for most other crops. Most tobacco is eligible for price support and this sets a floor for grower prices. Both the support level and the average price received for most tobaccos have been considerably above the direct production cost. Thus for most tobacco, prices have not been a critical factor in deciding how much acreage to produce.

Labor shortages at prices farmers are willing to pay limit tobacco acreage in some producing areas. This is particularly true for fire-cured, dark air-cured, and cigar filler and binder tobaccos that sell for considerably less than flue-cured and burley. Also, Maryland tobacco is produced in a high wage area and its acreage has been trending down.

The average farm wage rate more than doubled over the last 2 decades from 69 cents per hour in 1950 to \$1.64 in 1970. The wage rate is slightly lower in the major tobacco producing States, but the percentage increase is greater. In addition to farm wage increases, competition for labor from higher paying nonfarm industries also increased.²

YIELDS

The average tobacco yield increased from around 1,000 pounds per acre in the early 1940's to more than 2,100 pounds in 1970. At first the increase was gradual—through 1953 it averaged about 29 pounds per year. The rate then accelerated to an average of 66 pounds per year until 1964. After 1964 the average yield

²Braden, Johnny D., and Miller, Robert H., "Trends and Prospects for Tobacco Labor", *Tobacco Situation*, TS-132, June 1970, Econ. Res. Ser., USDA.

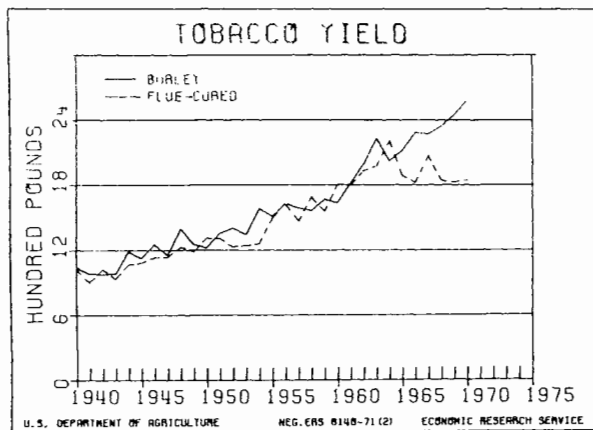
Farm wage rates and gross hourly earnings in selected industries, selected years¹

Year	All farm ²	North Carolina	Kentucky	Tennessee	Total non-agricultural	
					Actual	Amount above farm wage
<i>Dollars per hour</i>						
1950	0.69	.49	.59	.45	1.34	0.65
1955	.82	.54	.65	.51	1.71	.89
1960	.97	.70	.82	.63	2.09	1.12
1965	1.14	.86	.98	.82	2.45	1.31
1966	1.26	.95	1.16	.92	2.56	1.30
1967	1.33	1.03	1.20	1.01	2.68	1.35
1968	1.43	1.16	1.37	1.09	2.85	1.42
1969	1.58	1.26	1.48	1.18	3.04	1.46
1970	1.64	1.36	1.61	1.27	3.22	1.58

¹ Annual average. ² Without room and board. USDA, SRS, *Farm Labor*; U.S. Department of Commerce, *Survey of Current Business*.

U.S. Bureau of Labor Statistics, *Employment and Earnings*.

leveled off, reflecting the downturn in flue-cured yields following the adoption of acreage-poundage marketing quotas. Flue-cured and burley yields prior to 1964 followed about the same general pattern. Since 1964 burley yields increased but flue-cured yields declined.



Technology

Tobacco yields over the past 3 decades were influenced by many economic and institutional factors. Major factors have been new technology and improved practices growers applied to boost yields. Technological change can conveniently be broken into 3 stages—(1) invention, (2) innovation, and (3) rate of adoption.³ The relatively smooth and increasing yield trend suggests that the producer's adoption process has been gradual but at an accelerated rate.

Compared to most crops, growers produce tobacco with a low capital investment, but large amounts of relatively unskilled labor are required. Traditionally, little machinery and equipment are involved. Until recently, growers could adopt new technology with little additional capital or change in the basic production routine. The changes generally increased yields and reduced labor requirements.

³Day, Richard H., "An Approach to Production Responses", Agr. Econ. Res., Vol. XIV, No. 4, p. 134, Oct. 1962, USDA.

The most widespread changes have been in fertilizers, pesticide and growth chemicals, and tobacco varieties rather than mechanization. Mechanical harvesters and new type curing barns are now in the invention and innovation stages, but they require a considerable capital outlay. Because of the high cost compared to the small size of most allotments, producer adoption has been almost nil.

Fertilizer is applied in relatively large quantities per acre to boost yields. Producers fertilize virtually all tobacco and increased fertilization probably has accounted for much of the yield uptrend. Fertilizer nutrients used per acre (N-P-K) increased 55 percent from 1954 to 1964. The rate of N (nitrogen) applied per acre increased 64 percent during the 1954-64 period. P (phosphorus) increased 23 percent and K (potassium) increased 68 percent. Not only the application rate increased but the analysis shifted.

Chemical pesticides are used widely to obtain higher yields and reduce labor requirements. In 1966 about 81 percent of farms growing tobacco used chemical pesticides on about 91 percent of the tobacco acreage. The cost to farmers was about \$20 million. This was a decline of about one-third from 1964, due mainly to a 13 percent reduction in acreage grown and a 30 percent reduction in cost per acre treated.

Growers have used insecticides for many years, but with new and more effective chemicals, use increased

Pesticide use and expenditures on tobacco, 1964 and 1966

Year	Percent of total		Expenditures	
	Farms using pesticides	Acres treated	Per acre treated	Total
	Percent	Percent	Dollars	Million dollars
1964	81	93	30.58	30.0
1966	81	91	21.71	20.2

Farmer's Expenditures for Pesticides, Economic Research Service, Reports No. 106, 1967, and No. 192, 1970.

Fertilizer used for tobacco, 1954 and 1964

Year	Percent of harvested acres fertilized	Quantity of nutrients				Rate per acre			
		N	P	K	Total	N	P	K	Total
		Million tons	Million tons	Million tons	Million tons	Pounds	Pounds	Pounds	Pounds
1954	97	45.5	18.9	73.4	137.9	60.0	52.8	97.1	209.9
1964	100	50.4	33.1	83.4	166.9	98.4	65.0	162.7	326.1

"Fertilizer Used on Crops and Pasture in the U.S." Agric. Res. Serv., Stat. Bul. No. 216, 1957; "Fertilizer Used in the U.S. by

Crops and Area", Econ. Res. Ser. and Stat. Rep. Ser., Stat. Bul. No. 408, 1967.

rapidly in the postwar period. In 1966 about 80 percent of tobacco acreage was chemically treated for insects at a cost of \$8.2 million. Nonchemical methods of insect control are mostly in the development stages.

Excluding plant beds, fungicides costing \$437,000 were used on 68,000 acres in 1966. Fungicides are less intensively used on tobacco than for fruits and vegetables.

Use of herbicides for weed control has not been widespread in tobacco production. Only about 19,000 acres were treated in 1966. Herbicides reduce labor, but improper use may inhibit tobacco yields. Plant bed sterilization by burning has been largely replaced by chemicals. They normally produce a healthier plant, reduce the labor requirements, and control weeds better.

Tobacco acreage treated and expenditures, by type of Pesticide, 1966

Type ¹	Acres treated	Cost per acre	Total cost
	1,000	Dollars	Thousand
Insecticide ²	788	10.38	8,179
Fungicide ²	68	6.41	437
Herbicide ²	19	7.63	145
Soil fumigants	N.A. ³	N.A.	2,042
Growth regulators	N.A.	N.A.	8,400

¹ Does not include seedbed and transplant pesticides. ² Does not include insecticide-fungicides and other combinations. ³ N.A.=Not available.

Chemicals have been successful for sucker control, and to a lesser extent for topping. Topping and suckering were formerly done by hand; chemicals probably have been more effective in decreasing labor than increasing yields. In addition to topping and sucker control, these chemicals also cause the stalk to cure and ripen more evenly with less firing and waste from bottom leaves. Tobacco producers used \$8.4 million worth of growth regulators in 1966. This accounted for about 95 percent of this type chemical sold to farmers.

Tobacco varieties that are high-yielding have become numerous. Most are resistant to several of the major tobacco diseases, and adapted to particular growing areas.⁴ Also, some varieties can be harvested with less leaf damage and loss. However, some of the higher yielding varieties produce lower quality tobacco. With the numerous varieties available, a grower can select the one best suited to his particular farm operation.

Irrigation is not widespread in tobacco production, but its use is increasing. In 1964, about 16 percent of

the tobacco acreage was irrigated. From 1959 to 1964 irrigated acreage about doubled. During years of low rainfall, irrigation increases yields and improves quality. Even in years when rainfall is high but poorly distributed through the growing season, yields are increased by applying water at critical stages.⁵

Acreage Allotments

Besides affecting acres harvested, acreage allotments have influenced tobacco yields. On a given allotment producers generally try to maximize yields. With fixed acreage and a small price differential for quality, individual farmers could maintain or increase their cash returns by increasing yields. As allotments decline growers apply more fertilizer per acre. Higher yielding and improved varieties are grown, and plant population per acre increased. Better disease and insect control, higher topping, and better sucker control have become common. Timing of each operation has received increasing attention.

Farmers have made considerable effort to offset acreage declines by increasing yields even if it meant producing a lower quality tobacco. Growers apparently have found that the value of increased poundage more than compensates for the increased production cost and any possible reduction in value per pound due to lower quality.

A number of changes affecting yields would probably have occurred without acreage controls, but acreage controls speeded up the process. This is illustrated by yield trends of allotted and nonallotted kinds of tobacco. Under acreage allotments from 1940 to 1964, flue-cured yields increased an average of 46 pounds per year. Under acreage-poundage marketing quotas since 1965, yields declined at an average rate of about 9 pounds per year. Maryland (type 32) tobacco yields increased about 21 pounds per year from 1960 to 1965, under acreage allotments. Allotments were not in effect after 1965, and yield has declined about 3 pounds per year since. Burley yields increased about 73 pounds per year since 1965.

For burley, acreage allotments were in effect since 1940 and yields increased at an average annual rate of 60 pounds per acre. Pennsylvania cigar filler has never had acreage restrictions and yields increased an average of 12 pounds per year since 1940.

As allotments became smaller, not only did growers try to maximize yields, they also concentrated production on their more productive land. Acreage allotment cuts resulted in less productive land being converted to other uses. This factor accounts for some of the yield increase, especially in areas where farms were small and the amount of desirable land limited.

⁴ Selected references—"Burley Tobacco Production in Tennessee", Publication 358, Agric. Ext. Ser., Univ. of Tenn.; "Burley Tobacco Production", Circular 616, Univ. of Ky., Ext. Ser., Univ. of Ky.; "Growing Flue-cured Tobacco in Georgia", Bul. 599, Coop. Ext. Ser., Univ. of Ga.

⁵ Irrigating Tobacco, Farmers Bul. No. 2159, USDA; Field Irrigation of Tobacco, Circular 491, N.C. Agric. Ext. Ser., N.C. State Univ.

A regression analysis indicated that about 94 percent of the variation in the national yield between 1940 and 1969 was associated with time and average allotment size.⁶ The time variable allows for production practice shifts for which no annual data are available. Although the allotment size regression coefficient for burley did not have the expected sign, about 94 percent of burley yields and 90 percent of flue-cured can be associated with these variables.

PROSPECTS

If tobacco use continues its downtrend as expected, then the prospects over the next several years are for a decline in tobacco production. In proportion to disappearance, present supplies of flue-cured and burley are above desirable levels. So USDA is required to reduce allotments and bring the supply in line with requirements as measured by the legislative formula. Some production is lost as older growers retire. Also increasing labor shortages may mean more underplanted allotments.

⁶ Statistical relationship for 1940-69 is: All tobacco: $X_1 = 962.7 - 29.9 X_2 + 38.1 X_3$ ($R^2 = .94$); Burley: $X_1 = 532.2 + 143.8 X_2 + 55.2 X_3$ ($R^2 = .94$), Flue-cured: $X_1 = 1,107.0 - 48.0 X_2 + 36.5 X_3$ ($R^2 = .90$). Where X_1 = yield, pounds per acre; X_2 = average size allotment; acres; X_3 = time, 1940=1. For projection purposes the trend of the past few years may be more useful than this 30-year average.

Legislation is pending to change the burley program from acreage allotments to poundage marketing quotas. If burley shifts to poundage and fewer allotments are restricted by acreage controls, the push by farmers to maximize yields on a fixed acreage will likely dampen. The yield increase may slow or possibly disappear. Emphasis is expected to shift somewhat away from yield-increasing to laborsaving technology. Technological developments that produce better and more effective pesticides, fertilizers, and topping and sucker control will probably continue if they reduce unit cost. Some chemicals are banned from use on tobacco and there will likely be further restrictions on use of chemicals. This may spur the development of nonchemical insect control.

Widespread use of the mechanical harvester by farmers is probably some time away, but efforts by researchers likely will continue until a harvester that is efficient on small acreage is developed. Tobacco varieties suitable for mechanization will receive increased attention. As mechanization is adopted by farmers, more capital will be needed for tobacco production.

The labor shortage and competition for labor show no sign of easing and probably will intensify as tobacco producing areas become more industrialized. As a result, more allotments may become underproduced. Lease and transfer, and sales of allotments would allow small allotments to be consolidated into larger more efficient production units. This may tend to shift tobacco production to areas where production can be effectively mechanized.

United Kingdom tobacco: Imports, stocks, clearances, and exports, 1968-70

Item	1968	1969	1970	Item	1968	1969	1970
	<i>Million pounds</i>				<i>Million pounds</i>		
Imports, by source:				Gross clearances:			
United States	165	135	117	Full duty rate ¹	168	167	166
Commonwealth	134	137	118	Commonwealth			
Other	29	33	49	rate ²	140	139	139
Total	328	305	284	Total	308	306	305
Exports:				Flue-cured:			
Manufactured				United States	147	143	133
products	44	50	49	Commonwealth	139	138	138
Unmanufactured	4	3	5	Other	4	11	19
Stocks, Sept. 30:				Total	289	290	290
Flue-cured	401	398	---	Net clearances:	239	230	229
Other	47	48	---				
Total	448	446	391				

¹ March 15 estimate. --- = not available.
Compiled from Official United Kingdom sources.

Table 24.--Cash receipts from farm marketings and tobacco, average 1950-59, annual 1965-70 with percentages

Period	Cash receipts				Tobacco as a percentage of--	
	Livestock and products	All crops	Total farm	Tobacco	All crops	Total cash receipts
----- Million dollars -----						
Average:						
1950-54	17,432	13,504	30,936	1,119	8.3	3.6
1955-59	17,559	13,755	31,314	1,088	7.9	3.5
1960	18,909	15,090	33,999	1,154	7.6	3.4
1961	19,391	15,532	34,923	1,325	8.5	3.8
1962	20,025	16,162	36,187	1,321	8.2	3.7
1963	19,926	17,282	37,208	1,269	7.3	3.4
1964	19,817	17,233	37,050	1,414	8.2	3.8
1965	21,845	17,250	39,095	1,186	6.9	3.0
1966	24,836	18,383	43,219	1,211	6.6	2.8
1967	24,405	18,383	42,788	1,392	7.6	3.3
1968	25,539	18,846	44,386	1,173	6.2	2.6
1969	28,439	18,790	47,229	1,296	6.9	2.7
1970 ^{1/}	29,089	19,589	48,678	1,406	7.2	2.9

^{1/} Preliminary.

Table 25.--Total expenditures for tobacco products, average 1950-59, annual 1960-70

Year	Total	Cigarettes	Cigars	Other ^{1/}
----- Million dollars -----				
Average:				
1950-54	4,904	4,088	539	277
1955-59	5,904	5,072	575	257
1960	7,187	6,244	649	294
1961	7,472	6,538	631	303
1962	7,608	6,675	634	299
1963	8,004	7,055	649	300
1964	8,113	7,024	765	324
1965	8,651	7,609	734	308
1966	9,140	8,113	718	309
1967	9,582	8,572	706	304
1968	10,112	9,094	703	315
1969	10,444	9,404	701	339
1970 ^{2/}	11,680	10,600	705	375

^{1/} Smoking, chewing, and snuff. ^{2/} Preliminary; subject to revision.

Table 26.--Federal and State tax revenues from tobacco products, average 1950-59, annual 1960-70

Period	Federal			States ^{2/}		Total Federal and State
	Cigarettes	Cigars	Chewing, smoking, and snuff	All tobacco products ^{3/}	Total ^{1/}	
----- Million dollars -----						
Average:						
1950-54	1,445	45	28	471	1,518	1,989
1955-59	1,658	47	18	640	1,723	2,363
1960	1,887	50	17	998	1,955	2,953
1961	1,950	50	17	1,070	2,019	3,094
1962	1,961	50	16	1,130	2,030	3,160
1963	2,047	51	17	1,225	2,116	3,341
1964	1,987	62	18	1,264	2,069	3,333
1965	2,014	58	16	1,482	2,090	3,572
1966	1,993	56	4/	1,633	2,051	3,684
1967	2,111	56	4/	1,760	2,169	3,929
1968	2,086	54	4/	2,067	2,142	4,209
1969	2,020	56	4/	2,186	2,077	4,263
1970 ^{5/}	2,100	57	4/	2,460	2,160	4,620

^{1/} Includes leaf dealer penalties, floor taxes, cigarette papers and tubes, etc. ^{2/} Includes District of Columbia. ^{3/} Cigarette taxes--about 98 percent of total. ^{4/} The Federal excise tax on chewing, smoking, and snuff was repealed effective January 1, 1966. Taxes incurred prior to repeal but paid in 1966 totaled about \$510,000. ^{5/} Preliminary. General note: Local government taxes from tobacco products in fiscal 1968/69 totaled \$97 million.

Compiled from reports of the Internal Revenue Service, the National Tobacco Tax Association, and other sources.

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STATISTICAL SUMMARY--CONTINUED

Item	Unit or base period	1969-70		1970-71			Last data as percentage of a year earlier
		Dec.	Jan.	Nov.	Dec.	Jan.	
Exports of leaf tobacco (farm-sales weight)							
Flue-cured	Mil. lb.	77.2	18.4	70.7	65.2	38.3	208
Burley	Mil. lb.	7.8	1.2	6.7	2.3	3.1	258
Maryland	Mil. lb.	1.2	.9	.6	1.0	.1	11
Virginia fire- & sun-cured	Mil. lb.	.4	.1	1.7	.3	.2	200
Ky.-Tenn. fire-cured	Mil. lb.	2.2	1.4	2.8	1.3	1.7	121
Ky.-Tenn. dark air-cured	Mil. lb.	*	.1	*	*	.1	100
Black Fat	Mil. lb.	.2	.3	.2	.1	.3	100
Cigar wrapper	Mil. lb.	.1	.1	.2	.1	.1	100
Connecticut binder	Mil. lb.	*	.1	*	.1	*	---
Wisconsin binder	Mil. lb.	0	0	*	0	0	---
Accumulated from beginning of marketing year 8/							
Flue-cured	Mil. lb.	354.1	372.5	230.6	295.9	334.2	90
Burley	Mil. lb.	19.1	20.3	9.5	11.7	14.9	73
Maryland	Mil. lb.	3.1	4.0	2.2	3.2	3.3	82
Virginia fire- & sun-cured	Mil. lb.	1.5	1.6	2.5	2.8	3.0	188
Ky.-Tenn. fire-cured	Mil. lb.	8.2	9.6	5.3	6.5	8.2	85
Ky.-Tenn. dark air-cured	Mil. lb.	.2	.3	.1	.1	.2	67
Black Fat	Mil. lb.	.5	.8	.5	.6	.9	112
Cigar wrapper	Mil. lb.	.9	1.0	.7	.8	.8	80
Connecticut binder	Mil. lb.	.2	.2	.1	.2	.2	100
Wisconsin binder	Mil. lb.	.2	.2	*	*	*	---
Cigar filler	Mil. lb.	.2	.3	*	*	*	---
Exports of manufactured tobacco in bulk	Mil. lb.	1.6	1.3	2.7	3.2	2.9	223
Accumulated from Jan. 1	Mil. lb.	20.3		20.5	22.9		113
Quarterly data							
		1969-70		1970-71			
		Oct.-Dec.	Jan.-Mar.	Oct.-Dec.	Jan.-Mar.		
Stocks of tobacco--1st of quarter 9/							
Domestic types (farm-sales weight)							
Flue-cured	Mil. lb.	2,493	2,443	2,410	2,504		102
Burley	Mil. lb.	1,316	1,588	1,343	1,654		104
Maryland	Mil. lb.	75	67	62	50		75
Fire-cured	Mil. lb.	83	70	74	64		91
Dark air- and sun-cured	Mil. lb.	63	64	57	69		92
Cigar filler	Mil. lb.	142	125	126	114		91
Cigar binder	Mil. lb.	49	46	42	44		96
Cigar wrapper	Mil. lb.	25	26	25	26		100
Under Government loan 10/	Mil. lb.	1,153	1,256	1,279	1,371		109
Tobacco sheet 11/							
Cigarette types	Mil. lb.	28.4	32.7	31.8	29.2		89
Cigar types	Mil. lb.	2.1	2.4	1.5	2.0		83
Foreign types (farm-sales weight)							
Cigarette and smoking	Mil. lb.	423	412	406	386		94
Cigar	Mil. lb.	96	95	99	99		104
Tobacco outlets 12/							
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Cigarettes							
Production	Bil.	558	552	610	572		104
Taxable removals	Bil.	509	503	565	520		103
Cigar production	Bil.	8.42	8.09	8.37	8.37		103
Smoking production	Mil. lb.	66.8	67.7	68.5	67.7		100
Chewing production							
Scrap	Mil. lb.	41.0	37.6	38.2	38.2		102
Plug and other	Mil. lb.	31.8	29.0	26.3	28.7		99
Snuff production	Mil. lb.	28.0	25.4	26.7	26.7		105
Exports of leaf total	Mil. lb.	756	540	648	600		111
Flue-cured	Mil. lb.	634	473	550	500		106

1/ 1970 and 1971 crops respectively.. 2/ Prices paid by farmers including interest, taxes and wage rates. 3/ Seasonally adjusted. 4/ Seasonally adjusted, annual rate. 5/ Excise tax excluded. 6/ Federal and applicable state and local taxes included. 7/ Farm-sales weight, equivalent. 8/ July 1 for flue-cured and cigar wrapper and October 1 for others. 9/ Holdings of manufacturers and dealers including grower cooperatives. 10/ Reported by grower cooperatives. 11/ Weight of tobacco leaf not including stems added. 12/ Data for most recent quarter are preliminary estimates. * Less than 50,000 pounds. Detail may not add to total due to rounding. ** Estimated.

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