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UNITED STATES DEPARTMENT OF AGRICULTURE
Economic Research Service

OUTLOOK FOR TOBACCO

Talk by
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Economic and Statistical Analysis Division
at the National Agricultural Outlook Conference
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The tobacco outlook for 1970 is highlighted by prospects for tobacco use to total near last year's level. This will mean another reduction in carryover. Growers will probably harvest about the same tobacco acreage this year as last. Price supports will go up 4.3 percent, so last year's level of cash receipts can probably be maintained.

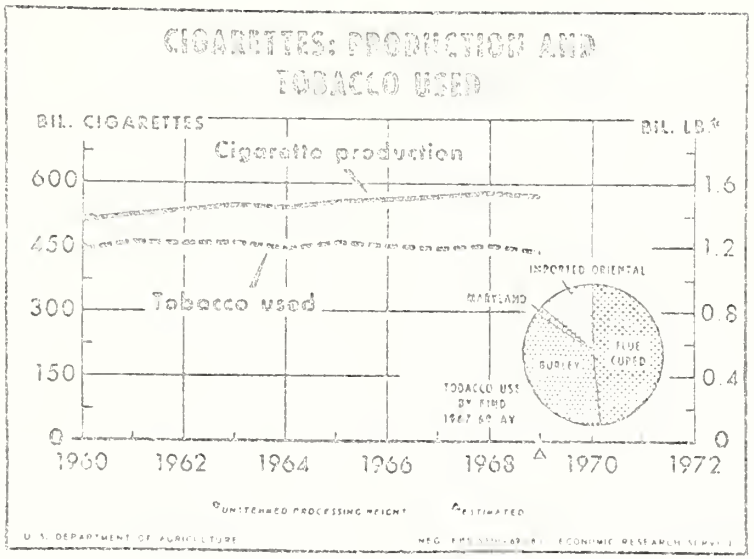
Tobacco Products

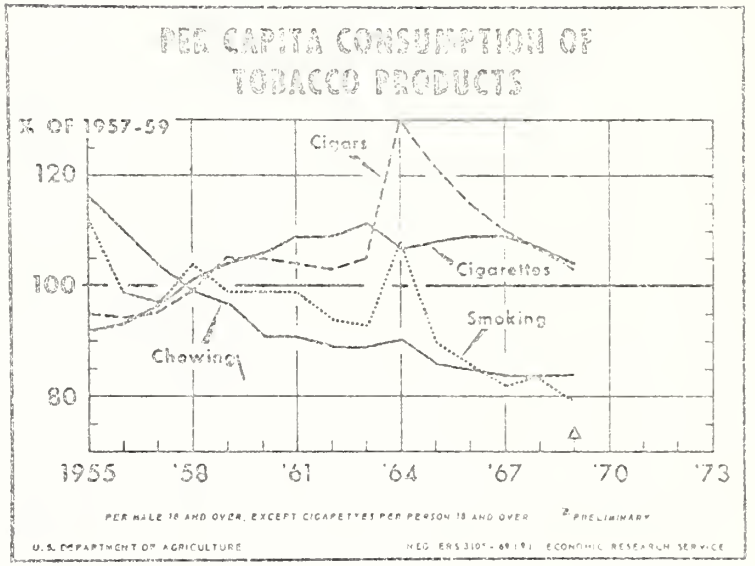
Cigarettes take four-fifth's of tobacco used in the United States. Cigarette output totaled about 560 billion last year--20 billion below 1968's record level. The number of cigarettes smoked per capita, 18 years and over, in 1969 was about 4,025 (201 packs), some 4 percent below 1968. Even though per capita use is declining this year U.S. smokers (including overseas forces) may smoke the same total number as in 1969 or slightly fewer.

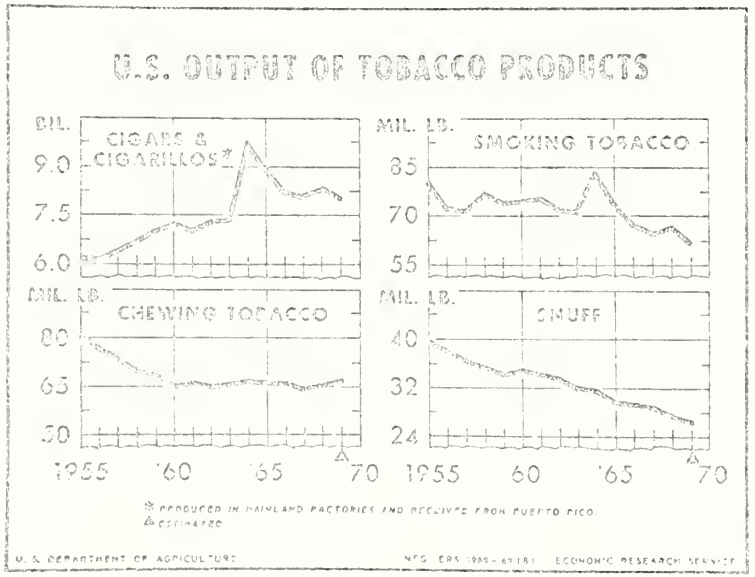
Retail cigarette prices rose 5 percent in 1969, due to increases in State and local taxes and higher wholesale prices. Further price increases are likely, reflecting tax hikes again this year. State excise taxes currently range from 2 to 18 cents per pack.

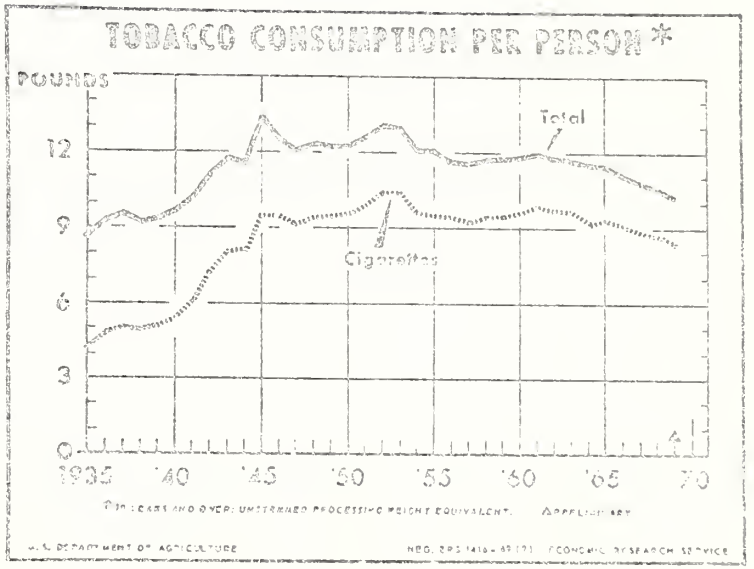
More people are of smoking age and incomes are at record levels, but cigarette consumption in 1970 could turn down further because of retail price increases, intensified smoking-health publicity, and slower economic growth.

The U.S. House and Senate have each passed new cigarette labeling and advertising legislation and a Senate-House conference has to resolve the differences. Both bills extend the moratorium over actions by individual States against cigarettes and strengthen the health warning on cigarette packages. The Senate-passed bill would prohibit cigarette advertising on radio and TV after January 1, 1971, and allow the Federal Trade Commission to require the health warning in printed media after July 1, 1971, or sooner, if the FTC determines that cigarette manufacturers are substantially expanding advertising in newspapers, magazines, and billboards. The House-passed bill contains no provision on radio and television advertising and the moratorium over Federal agencies is extended until 1975.


CIGARETTES: PRODUCTION AND TOBACCO USED
BIL. CIGARETTES
BIL. LB.*
Cigarette production
Tobacco used
600
450
300
150
0
1.6
1.2
0.8
0.4
0
1960
1962
1964
1966
1968
1970
1972
IMPORTED ORIENTAL
MARYLAND
BURLEY
FLUE CURED
TOBACCO USE BY KIND 1967 CROP AV
*UNSTEMMED PROCESSING WEIGHT
ESTIMATED
U. S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE


PER CAPITA CONSUMPTION OF TOBACCO PRODUCTS
% OF 1957-59
Cigars
Cigarettes
Smoking
Chewing
120
100
80
1955
'58
'61
'64
'67
'70
'73
PER MALE 18 AND OVER, EXCEPT CIGARETTES PER PERSON 18 AND OVER
PRELIMINARY
U.S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE


U.S. OUTPUT OF TOBACCO PRODUCTS
BIL.
CIGARS & CIGARILLOS*
9.0
7.5
6.0
MIL. LB.
SMOKING TOBACCO
85
70
55
MIL. LB.
CHEWING TOBACCO
80
65
50
MIL. LB.
SNUFF
40
32
24
1955
'60
'65
70
* PRODUCED IN MAINLAND FACTORIES AND RECEIVED FROM PUERTO RICO.
ESTIMATED
U. S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE


TOBACCO CONSUMPTION PER PERSON*
POUNDS
Total
Cigarettes
12
9
6
3
0
1935
'40
'45
'50
'55
'60
'65
70
* 15 YEARS AND OVER; UNSTEMMED PROCESSING WEIGHT EQUIVALENT.
PRELIMINARY
U.S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

Since about the mid-1950's manufacturer's have reduced the average quantity of tobacco in a cigarette by 2 percent a year. The increased use of midribs of leaves and sheet tobacco, the shortened tobacco column of filter-tip cigarettes, and the decrease in cigarette circumference are major factors. Freeze drying and puffing processes, now in the experimental and market testing stages, may reduce the tobacco per cigarette even further in the next few years.

The production of U.S. and Puerto Rican cigars (including cigarillos) last year dropped 4 percent to about 7.9 billion. U.S. consumption was about the same as in 1968 but about 13 percent below 1964. Consumption per male 18 years and over was around 125 cigars, 1 percent below 1968. Total cigar consumption this year is expected to be near that of 1969. But the emphasis on smaller cigarillo types means less tobacco per cigar.

The 1969 output of smoking tobacco for pipes and roll-your-own cigarettes fell to 64 million pounds--a new low. Production was 4 percent below 1968. Further declines in output and sales may occur in 1970.

Output of chewing tobacco was 70 million pounds last year, 7 percent above 1968. Output has remained fairly stable since 1960. Increases in scrap and fine-cut chewing have about offset decreases in plug and twist. Snuff production steadied last year. Except for scrap chewing tobacco, per capita use of these products is expected to continue downward in 1970.

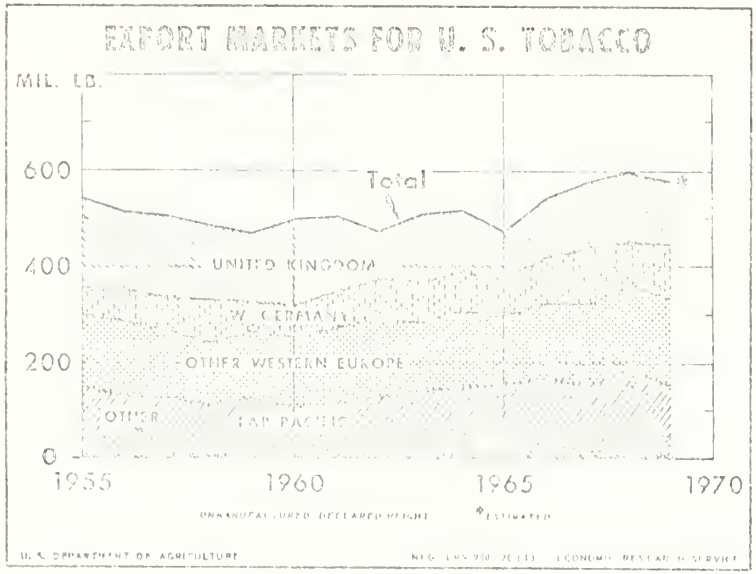
Foreign Trade

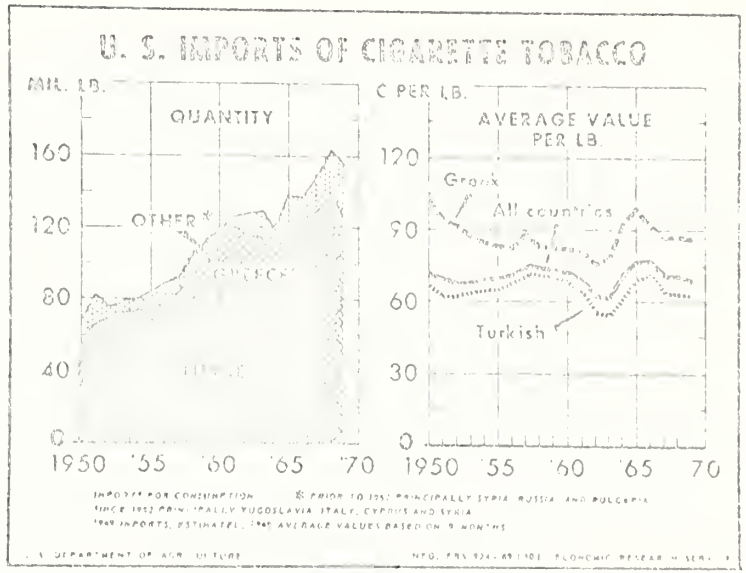
The value of U.S. exports of tobacco and tobacco products in 1969 amounted to a record $696 million in 1969, an increase of 1 percent over 1968. Volume fell below year-earlier levels, but unit values rose. Unmanufactured tobacco exports last year reached a record $540 million and tobacco products shipments were valued at $156 million. In recent years leaf and product exports represented about 40 percent of the U.S. tobacco crop.

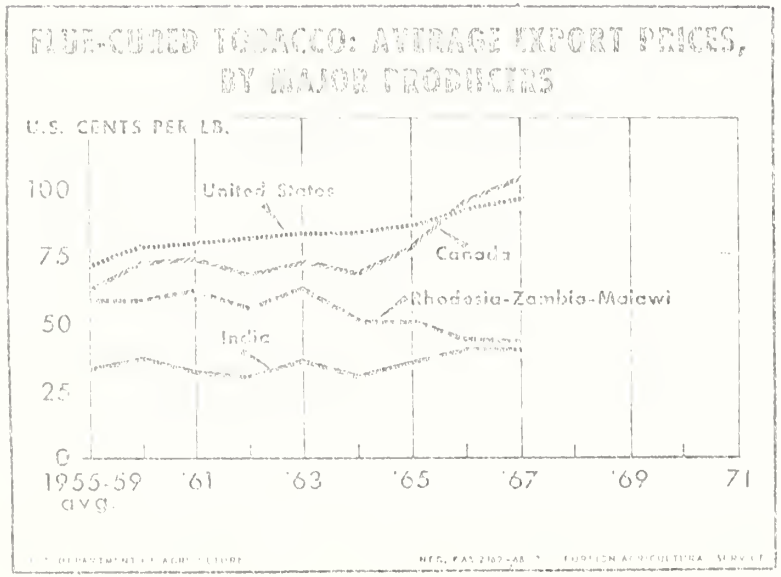
U.S. exports of unmanufactured tobacco in 1969 totaled 577 million pounds (657 million, farm-sales weight)--4 percent below 1968's 22-year high. Last year West Germany took more tobacco than in 1968, but the United Kingdom took less. Several countries in Asia and Oceania also took less.

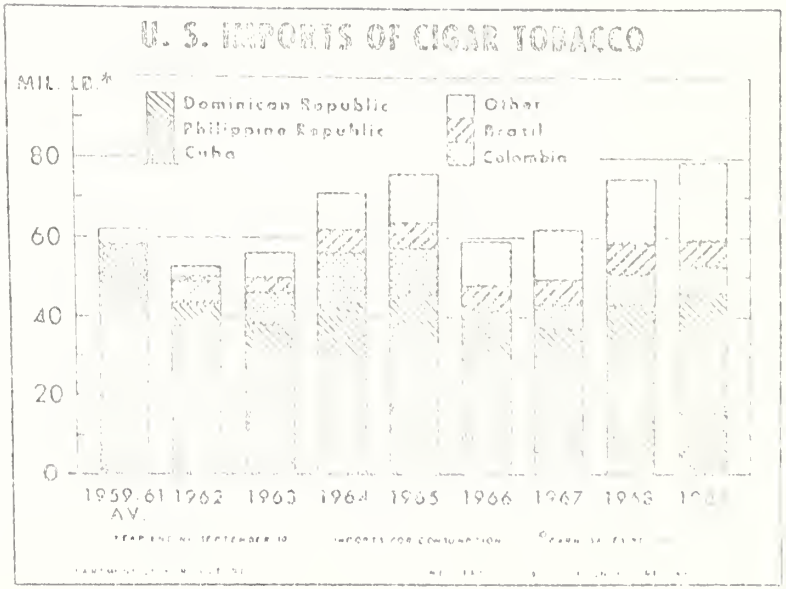
U.S. exports in 1970 will continue close to the 1969 high level, assuming the U.N. sanctions against Rhodesia continue. Both the high quality of the recent flue-cured crops and the U.S. export payments help U.S. exports. Also, world cigarette production is still expanding rapidly and the demand for light tobaccos for blending--primarily flue-cured and burley--is on the upswing. However, larger foreign crops, higher U.S. prices, and expanded production of higher quality tobacco by several heretofore minor exporters in Latin America, Africa, and Asia increase the competition in foreign markets.

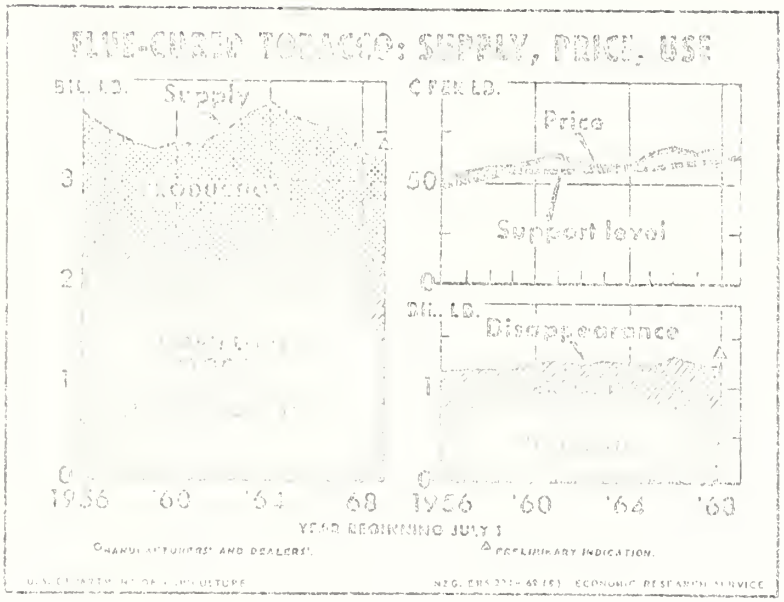
The largest market area for U.S. tobacco is Western Europe, and its total imports of unmanufactured tobacco have gained 2-3 percent annually in the 1960's. But [illegible] suppliers are important and the European Community and U.K. preferential [illegible] adversely affect exports of countries outside those groups. In other [illegible] where population is growing more

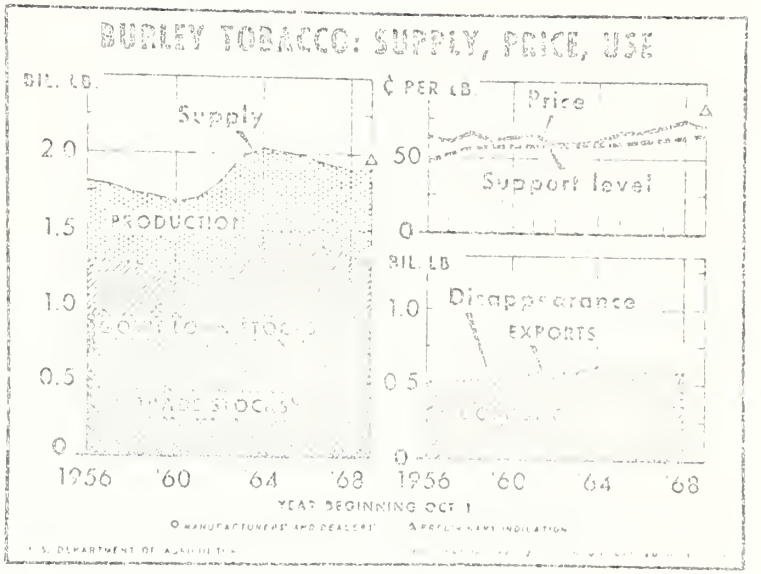

EXPORT MARKETS FOR U. S. TOBACCO
MIL. LB.
600
400
200
0
Total
UNITED KINGDOM
W. GERMANY
OTHER WESTERN EUROPE
OTHER
FAR EAST
1955
1960
1965
1970
UNMANUFACTURED DECLARED WEIGHT
ESTIMATED
U.S. DEPARTMENT OF AGRICULTURE

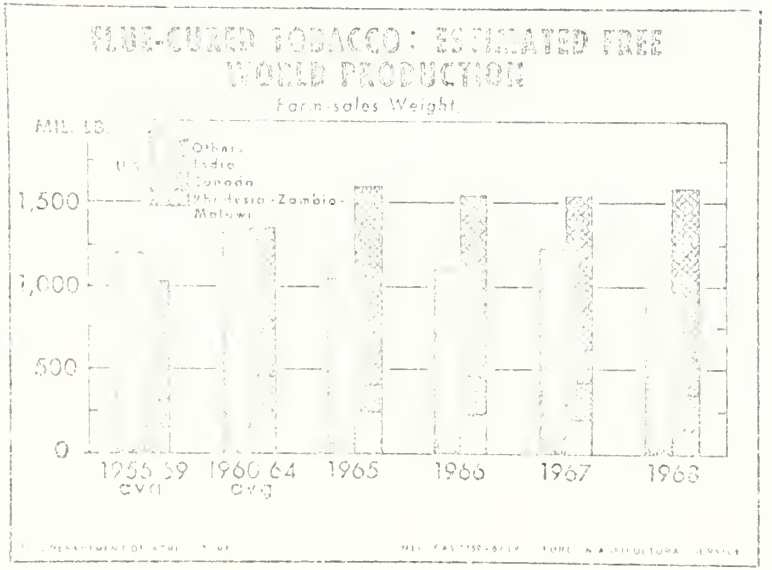

U. S. IMPORTS OF CIGARETTE TOBACCO
MIL. LB.
QUANTITY
160
120
80
40
0
OTHER
GREECE
TURKEY
1950
'55
'60
'65
'70
C PER LB.
AVERAGE VALUE PER LB.
120
90
60
30
0
Greek
All countries
Turkish
IMPORTS FOR CONSUMPTION
U. S. DEPARTMENT OF AGRICULTURE

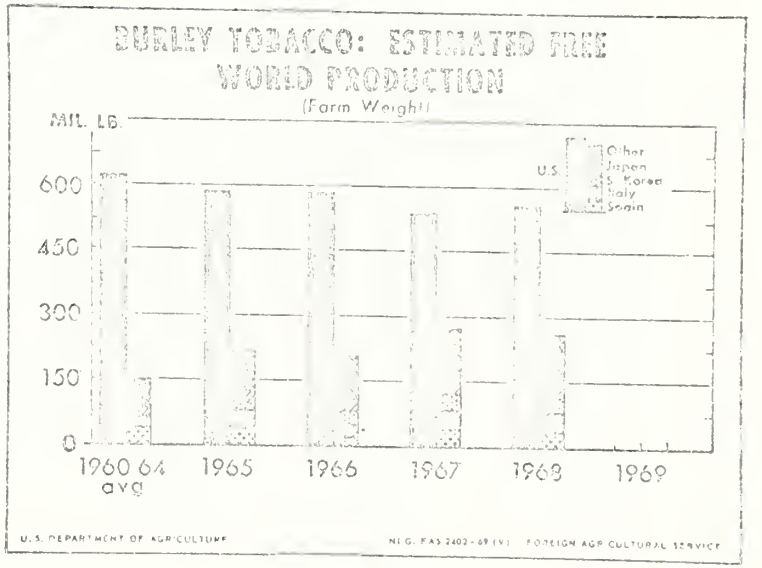

FLUE-CURED TOBACCO: AVERAGE EXPORT PRICES, BY MAJOR PRODUCERS
U.S. CENTS PER LB.
100
75
50
25
0
United States
Canada
Rhodesia-Zambia-Malawi
India
1955-59 avg.
'61
'63
'65
'67
'69
71
U.S. DEPARTMENT OF AGRICULTURE


U. S. IMPORTS OF CIGAR TOBACCO
MIL. LB.*
Dominican Republic
Philippine Republic
Cuba
Other
Brazil
Colombia
80
60
40
20
0
1959-61 AV.
1962
1963
1964
1965
1966
1967
1968
YEAR END NO. SEPTEMBER 30
IMPORTS FOR CONSUMPTION


FLUE-CURED TOBACCO: SUPPLY, PRICE, USE
BIL. LB.
Supply
PRODUCTION
¢ PER LB.
Price
Support level
MIL. LB.
Disappearance
1956
'60
'64
'68
YEAR BEGINNING JULY 1
MANUFACTURERS' AND DEALERS'
PRELIMINARY INDICATION.


BURLEY TOBACCO: SUPPLY, PRICE, USE
BIL. LB.
Supply
PRODUCTION
¢ PER LB.
Price
Support level
BIL. LB.
Disappearance
EXPORTS
1956
'60
64
'68
YEAR BEGINNING OCT. 1
MANUFACTURERS' AND DEALERS'
PRELIMINARY INDICATION


FLUE-CURED TOBACCO: ESTIMATED FREE WORLD PRODUCTION
Farm-sales Weight
MIL. LB.
U.S.
Other
India
Canada
Rhodesia-Zambia-Malawi
1,500
1,000
500
0
1955-59 avg
1960-64 avg
1965
1966
1967
1968


BURLEY TOBACCO: ESTIMATED FREE WORLD PRODUCTION
(Farm Weight)
MIL. LB.
U.S.
Other
Japan
S. Korea
Italy
Spain
600
450
300
150
0
1960-64 avg
1965
1966
1967
1968
1969

rapidly and per capita [illegible] leaf use is gaining at a faster rate, but the demand is more limited for the higher priced U.S. supplies.

The United States is the third largest tobacco importing country because of demand for certain kinds of foreign tobacco for blending with domestic types in the manufacture of cigarettes and cigars. Oriental cigarette leaf is the principal kind of import. Imports for consumption (factory use) last year were off about 19 million pounds to 143 million pounds--a decline of 12 percent from 1968. In addition 10 million pounds of oriental scrap and 4 million pounds of imported flue-cured and burley leaf were used last year.

Cigar tobacco imports are mainly filler tobacco including scrap. The Philippines is the leading source. During October 1968-September 1969 importers brought in 79 million pounds (farm-sales weight) for consumption, up 4 million from a year earlier.

Imports for consumption accounted for about 16 percent of domestic tobacco utilization last year. This high level of factory use will probably continue due to large foreign stocks in the United States and substantial exportable supplies overseas. Costs of U.S. and oriental leaf for cigarettes are similar, but oriental scrap carries a much lower value than leaf.

Leaf Tobacco

The U.S. tobacco crop in 1969 was 5 percent larger than the previous year's 11-year low. Smaller carryovers have reduced supplies available for the 1969/70 marketing year 3 percent. Flue-cured prices set records, but the burley market weakened and growers got more tobacco under loan during the 1969 season. Prices for the season averaged 3 percent above the 1968/69 level.

Government price support is mandatory for the kinds of tobacco produced under a marketing quota. The 1970 crop price support levels for eligible tobacco will be 4.3 percent higher than in 1969. The increase results from a rise in the parity index (a measure of changes in prices paid by farmers, wages paid to hired labor, interest, and taxes).

As the result of the smallest carryover since 1962, the supply of flue-cured tobacco is 145 million pounds below 1968/69 season. Growers sold 55 million pounds more than in 1968, when the smallest crop in the 5 years of acreage-poundage quotas was produced. Many growers increased acreage in 1969 because they did not reach their quota in 1968.

The 1969 flue-cured crop sold at record prices, averaging 72.2 cents per pound--5.7 cents above the previous season. Most grade averages were higher and quality was the best in several years. Growers placed 9.6 percent of market deliveries under government loan. In the 1968 season 13 percent of market deliveries went under loan.

Last marketing year, exports of flue-cured (over four-fifths of total U.S. tobacco exports) were 2 percent below the previous season and domestic use was also down. Exports for July-December 1969 were 7 percent over a year earlier

(farm weight). If last year's disappearance of 1.2 billion pounds is matched in 1969/70 this would bring the mid-1970 carryover of flue-cured down 7 percent to about 1.95 billion pounds.

For 1970, the national flue-cured marketing quota is 1,071 million pounds--down 5 percent from 1969. But undermarketings for the 1969 crop exceeded overmarketings, so the base quota plus net undermarketings gives an effective quota of about 1,205 million pounds, 1 percent above 1969.

The 1969/70 supply of burley tobacco is fractionally above the previous year but 7 percent below the 1964/65 peak. Carryover on October 1 was about 1 percent less than a year earlier. Growers sold 3 percent more burley this season. The 1969 crop averaged about 69.5 cents a pound--down 4 cents from 1968. With the weaker market, loan placements at 27 percent of the crop rose sharply from the 1968 season, when 10 percent went under loan.

Burley exports gained in 1969 but domestic use slipped some with lower cigarette output and a jump in Maryland tobacco use. Despite relatively low Maryland supplies, with the same or lower cigarette production in 1970, domestic burley disappearance may not change much. So carryover stocks next October 1 will probably be near this season's ample level.

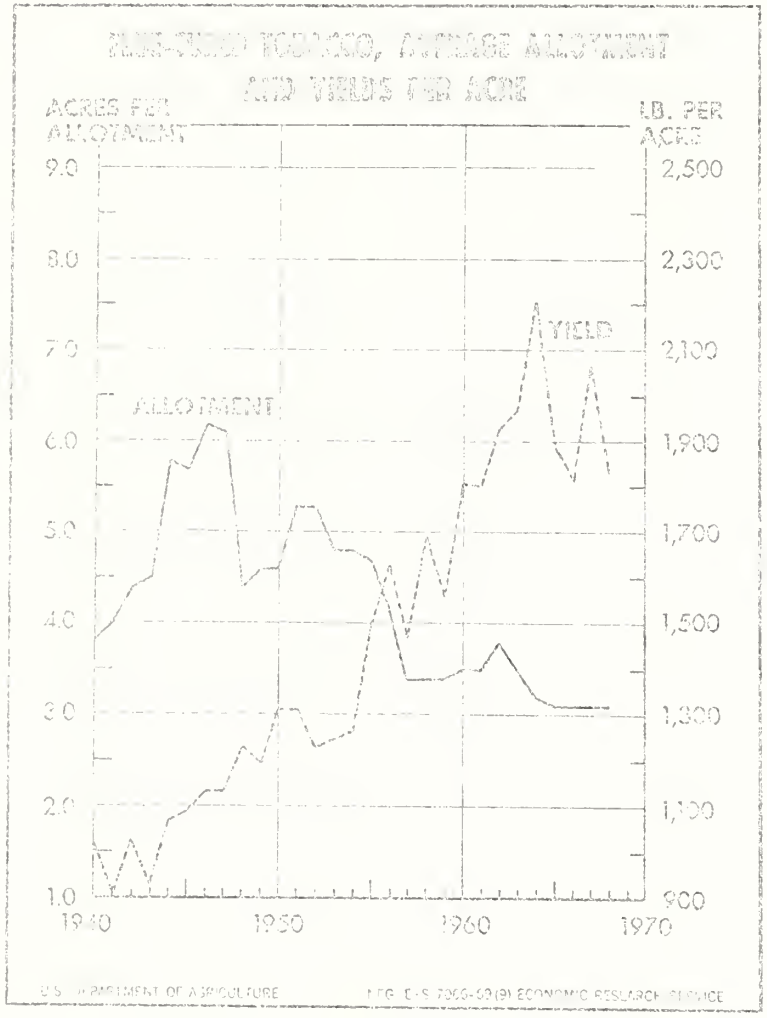
Burley yields have been trending upward, reaching a record high last year. USDA cut this year's acreage allotments 10 percent on all farms not protected by minimum provisions, so the crop should turn out smaller. This would reduce the supply in 1970/71 a little from this year.

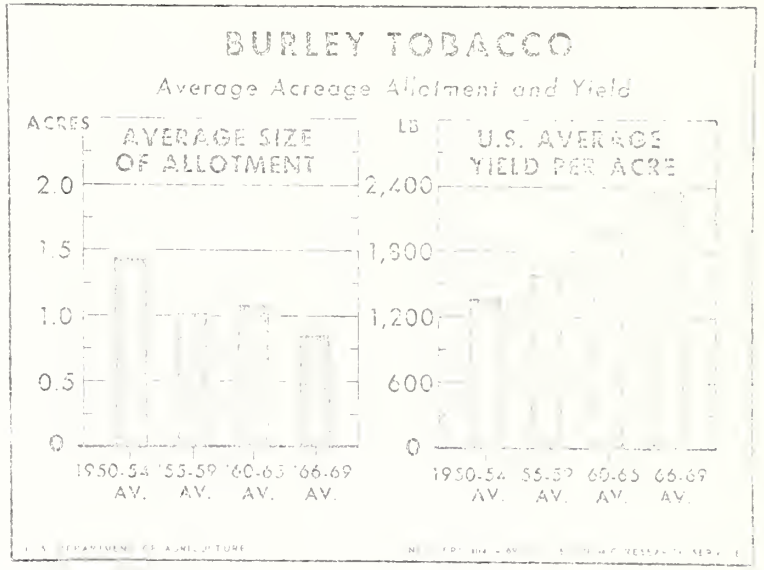
For other tobaccos the current marketing year's supplies of fire-cured, Maryland, cigar filler, cigar binder, and shade-grown cigar wrapper are smaller than last season, while dark air-cured increased slightly. Marketing quotas and acreage allotments for these tobaccos under support were announced last month.

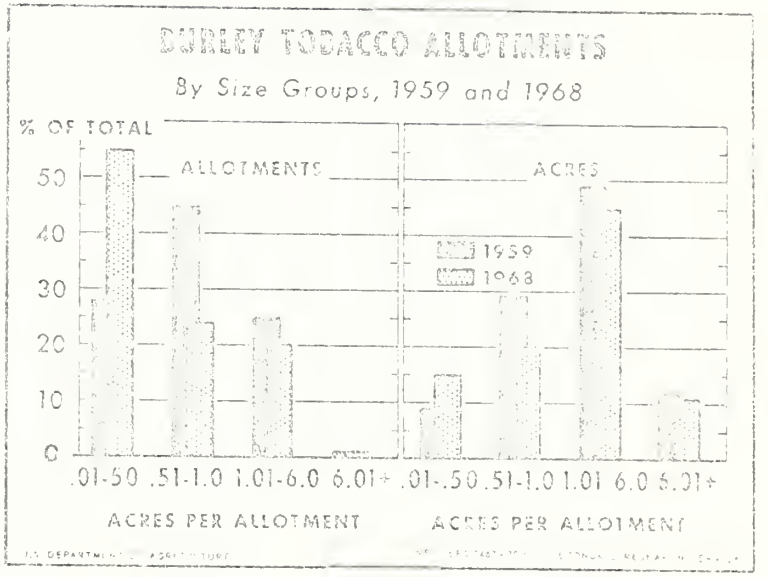
Longer Range Tobacco Production Prospects

For the last 5 years tobacco production averaged below output in the early 1950's. In contrast, most other farming enterprises gained over the past 2 decades. Despite the decline in tobacco production, the ingredients of tobacco production have undergone great and to some extent compensating changes over the years. The 2 components of production--acres and yield per acre--moved in divergent patterns--at least prior to 1965 for flue-cured tobacco. Since then the average yield per acre has stabilized.

The late 1950's marked an important turning point for tobacco growing. Following a series of acreage allotment cuts and the pressure to maintain farm income, growers adopted new practices and technology that increased yield per acre. Higher rates of fertilization; higher yielding and improved varieties; better disease, insect and weed control; higher topping, and closer spacing are important changes that increased yields. Hard formal education, extension activities, improved transportation, and communication have resulted in a more knowledgeable group of producers than some years ago.


ACRES PER ALLOTMENT
LB. PER ACRE
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
2,500
2,300
2,100
1,900
1,700
1,500
1,300
1,100
900
ALLOTMENT
YIELD
1940
1950
1960
1970


BURLEY TOBACCO
Average Acreage Allotment and Yield
ACRES
AVERAGE SIZE OF ALLOTMENT
2.0
1.5
1.0
0.5
0
LB
U.S. AVERAGE YIELD PER ACRE
2,400
1,800
1,200
600
0
1950-54 AV.
'55-59 AV.
'60-65 AV.
'66-69 AV.


BURLEY TOBACCO ALLOTMENTS
By Size Groups, 1959 and 1968
% OF TOTAL
ALLOTMENTS
ACRES
1959
1968
50
40
30
20
10
0
.01-.50
.51-1.0
1.01-6.0
6.01+
ACRES PER ALLOTMENT

Farmers' responses to allotment changes, price, and other considerations are important in estimating the effect of program changes as well as in determining the long-run economic outlook for tobacco production. With acreage allotments, farmers respond by deciding to grow their given allotment including leased acreage, and then they try to obtain a high yield per acre. The acreage-poundage modification for flue-cured tobacco shifts the emphasis from maximum yields to maximum net income with a given poundage quota. Beside allotments and quotas, rising production costs, more attractive off-farm opportunities, large labor requirement, and difficulty in obtaining harvest labor serve to limit tobacco production in many areas.

Tobacco acreage data for the past 2 decades were studied. Since abandoned acreage is usually quite small, harvested acreage approximates planted acres.

Acreage allotments rather effectively set the upper limit on acreage. Excess acreage for harvest is usually negligible in view of the overquota marketing penalty (75 percent of the previous year's average price). Thus, harvested acreage can be estimated directly, or the underplantings estimated and the harvested acreage derived.

During 1956-58 and then since 1966 some tobacco allotments have been idled under land retirement programs. The acreage reserve provision of the Soil Bank, operated in the earlier years and with the exception of burley, growers placed significant percentages of allotments under the program. The Cropland Adjustment Program (CAP) allowed farmers in 1966 and 1967 to place the farm allotment into protective conservation use for 5 to 10 years. Growers placed only about 1 percent of burley and flue-cured allotments in CAP, but the participation rate was much larger for other kinds.

After allowing for land retirement programs, underplantings for flue-cured tobacco were generally less than 2 percent of allotment before 1965. In the past 5 years when marketings averaged 5 percent below quota the underplantings averaged 6½ percent, partly because, unlike prior acreage allotments, growers using the acreage-poundage program can make up undermarketings with the following crop. The degree of underplanting during 1965-69 varied more from year to year than earlier data, and did not show any apparent trend, nor seem related to flue-cured prices, yield per acre, or change in allotments. One hypothesis is that underplanting is influenced by profit incentive.

Based on this hypothesis, the relationship of underplantings and the deflated price (actual price divided by prices-paid index tobacco farms, Coastal Plain, North Carolina) indicates underplanting tends to decrease as the real price of flue-cured tobacco rises. Based on the 1969 average prices to growers and the prices-paid index the underplanting in 1970 will be at least as large as the average of the past 5 years. With about 1 percent of acreage in CAP, the gross underplantings could be 7-8 percent of effective acreage allotment.

In burley tobacco the underplanting has been 3-5 percent of allotments for the past decade with little trend. Unlike flue-cured allotments under acreage-poundage, burley underplanting cannot be added to the following year's allotment.

For fire-cured, dark air-cured, and cigar types under allotment, underplantings run up to 50 percent or more, in part because of large participation in land retirement, lower market prices than for flue-cured and burley, and cash costs per acre nearly as large. So the relationship to price and alternative cost seems a reasonable way of forecasting acreage harvested.

For flue-cured and several other types of tobacco, the opportunity since 1962 for lease and transfer of allotments within a county has meant an active market for allotments that might otherwise be idled, or not used as efficiently. Many farmers rent additional acreage to be produced on the land of the allotment owner. As long as rent for allotments exceeds the net return from other crops, the difference between harvested acres and allotment is likely to be small.

Under the lease and transfer program, the average rental rate per pound of flue-cured marketing quota declined from 17 cents in 1966 to around 13.5 cents in 1969, according to North Carolina State University. Rising production costs, including wages and carryover of undermarketings tend to reduce the rate. Rates tend to be higher in counties where tobacco is important and lower on the fringes of major production areas. Wider transfer of allotments across county and State lines has been proposed, but even under present authorization transfers are likely to increase as tobacco farming becomes more affected by changes in other parts of agriculture and outside agriculture.

Transfer of allotments, 1969 crop 1/

Type	Allotments leased and transferred out			
	Farms	Amount	Percent of total allotment	Percent of harvested acres
	Number	Acres	Percent	
Flue-cured, 11-14 2/ 3/	66,842	131,819	20.7	24.7
Fire-cured, 21	779	949	9.2	19.4
Fire-cured, 22-23	3,452	4,243	15.7	22.4
Dark air-cured, 35-36	2,753	1,373	10.9	13.5
Va. sun-cured, 37	77	94	3.7	8.5
Cigar binder, 51-52 2/	16	71	1.2	4.4

1/ Includes sale, lease, and owner transfers. 2/ Annual lease only. 3/ Preliminary.

Compiled from data of Agricultural Stabilization and Conservation Service, USDA.

For burley, the major type without lease and transfer, an important consideration in allotment changes and future production is allotment size distribution. While the average burley allotment has been less than 1½ acres since 1959, the proportion of allotments of one-third acre or less has remained

in the past decade. The average allotment was .88 an acre last year; in terms of allotment numbers, 55 percent are one-half acre or less and under present law cannot be reduced further. These allotments represent about 25 percent of acres allotted. So this size distribution is important in considering allotment changes as well as in grower referendums.

Besides acreage, yield per acre is the other determinant of production. Yield is affected by weather. Growers have applied new technology to boost yields. The reduction of uncertainty due to government price supports and allotments tends to offset acreage limitations. Fertilizer application has increased sharply, while fertilizer prices have been steady or declining. Farmers tend to maintain fertilizer applications at the most recent level or increase applications as long as the crop will respond.

Rather clearly the flue-cured yield pattern shifted after 1964 under the acreage-poundage control program. The upward trend has been stopped and yields have stabilized around the national yield goal of 1,854 pounds per acre. On the other hand, burley yields have continued to rise, and the estimated yield of 2,450 pounds last year is an all-time high. The average gain over the past decade was 4 percent annually.

Burley yields by States in 1968 varied from 1,695 pounds per acre in West Virginia to 2,520 pounds in Virginia. Yields in some Kentucky counties average 20 percent above the Statewide average, and research plots yield up to 5,500 pounds per acre. With numerous small allotments for burley, a great many operators decide on what practices to follow. Probably most operators will strive to boost yields and the average will continue increasing. If the trend continues, further acreage cuts will be needed to adjust supplies to the level specified by legislative formula.

After 1970, the long term outlook for tobacco production will reflect many of the influences that affected it during the Sixties. Though the magnitude of future developments is uncertain, recent trends have not run their course. For several years, U.S. tobacco consumption will be held down or reduced by the smoking-health controversy and manufacturing efficiencies. On the supply side, farm wages have increased at an average rate of about 10 percent per year since 1965. This trend, along with the shortage of seasonal labor is likely to continue. Some additional mechanization will occur on larger acreages, but this will probably still have only a minor effect on overall supply over the next few years. So these factors will ensure continued pressure for change by tobacco growers.