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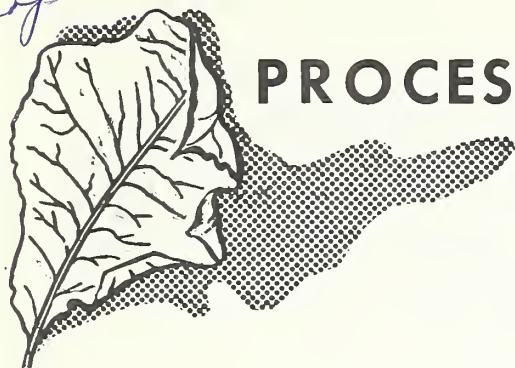
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PROCESSED BINDERS FOR CIGARS

● The Effect on the Market for Binder-Type Tobacco

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JUN 26 1967

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Summary

The shift in cigar binders from natural leaf to binders made of ground tobacco processed into sheets will affect the prices received by growers, the kinds of tobacco they grow, and the way cured tobacco is handled by both growers and purchasers.

Continuance of the rapid growth in use of processed binders could reduce somewhat the total amount of money received by growers for binder-type tobaccos. But there are offsetting factors:

1. That part of the binder-type tobaccos that is sold directly for scrap chewing tobacco would continue to be used for the same purposes. The reduction in price for binder types, therefore, would not apply to all the crop of those types.

2. Cigars with processed binders appear to be quite popular, and if cigar smoking should be increased because of that factor, the total of tobacco used in cigars would be increased.

This report was originally issued in May 1957 by the Agricultural Marketing Service as AMS-189. It is now reissued, without change in text, by the Marketing Economics Division, Economic Research Service, U. S. Department of Agriculture.

3. The extreme care that must be taken to raise binder-type tobacco of the high grades required for cigar binders, including the careful handling in harvesting, curing, and preparing for market, would no longer be necessary, with a consequent reduction in the growers' production costs.

4. This development will affect the relative advantage of different areas and growers in producing the tobacco. Those who adapt their production and marketing practices to lower their costs will be in the best position to take advantage of the changed situation.

Introduction

Processed binders are made by grinding very dry tobacco leaves, including the stems, mixing them as a fine powder with an adhesive, and forming the mixture into a thin sheet. Natural binders are made by removing the midrib (stripping) 1/ from a thin, elastic, sound (free from holes) leaf of tobacco. The stems and fine leaf particles, which are wasted in making the natural binder, are used in the processed binder. Much of the tobacco bought for use as natural binders is not actually used as binders, but is thrown out in sorting or recovered as cuttings in making the cigar. These throwouts (called stemmings in the trade) and cuttings are a joint product with the binders, inevitably resulting when any farmer grows tobacco to be used for binder purposes. They have both been used to a large extent for scrap chewing tobacco.

Growers of binder tobaccos (types 51, 52, 54, and 55) in the Connecticut Valley and in Wisconsin are much concerned over the effects of processed binders on their market. About two-thirds of the binders have come from the Connecticut Valley, nearly one-fourth from Wisconsin, and 7 to 10 percent from nonbinder types, largely from Pennsylvania. The period of adjustment for the growers from the high prices of World War II (and the inflation which followed) to the lower prices after 1948 was followed by the introduction of the processed binder in 1955.

Generally, the period 1950 to 1954 was one of adjusting production to consumption. Stocks were either stable or declining and production for the period was less than domestic consumption and exports. Production averaged 51 million pounds and disappearance was 54.6 million. Exports accounted for 2.7 million pounds, leaving domestic consumption only slightly above production. The supply of and demand for the cigar binder types was in good balance by 1954.

The concern among growers about the processed binders increased as the tobacco trade journals carried information on their development and use during 1954 and 1955. A Connecticut growers' committee considered the possibilities of the processed binders' becoming a factor in the binder market and recommended that growers adjust to their use. One of the large cigar companies, in December 1955, announced it would use the processed binder in all its brands.

1/ Not to be confused with stripping the leaves from the stalk.

Prices for the 1955 binder crop, excepting that of Southern Wisconsin, were all substantially lower than at any other time since the war. The 1954 prices were above the 1950-54 average except for the Connecticut Havana Seed crop. Another example of market weakness for the growers was the large quantity of the 1955 crop under loan; in all, 16.5 million pounds of a total of 41.6 million pounds.

Lower prices for 1955 and the uncertain future resulted in a large cut in acreage in 1956. Growers of Connecticut binder tobacco cut their acreage by half. The acreage in Wisconsin was not cut so drastically. Although prices recovered with the lower supply, a substantial amount of the tobacco did not enter directly into commercial channels. The total under loan was over 3.8 million pounds out of a total supply of 29.6 million.

The Future

Several factors will affect the future balance of supply with demand for cigar binder tobacco. Important among those are: (1) The number of cigars consumed, (2) the proportion of these using processed binders, (3) the quantity of tobacco required to produce a pound of processed binders, (4) the quality of tobacco required, and (5) production costs for different growers.

Cigar Consumption: Proportion of Cigars To Use Processed Binders

Close to 6 billion cigars have been smoked in the United States each year since the end of World War II. The estimate for 1956 is 2 percent above that number. The effect of the processed binder on cigar consumption appears to be favorable. Consumers are accepting the brands that use it. The techniques of blending the tobaccos to be used in the binder, and of blending the processed binder with the filler and wrapper, can be expected to improve as the manufacture and use of the processed binder develops. With this improvement, the cigars may become more pleasing to the consumer and consumption may increase. Increased consumption would call, in turn, for more tobacco, especially for filler, which is the larger part of the cigar.

About 20 percent of all cigars are now (April 1957) using processed binders, and it is expected the proportion will exceed 30 percent by the latter part of 1957. Present capacity for production and planned expansion by the end of the year should be sufficient to provide processed binders for 3 billion or more cigars. It appears reasonable to expect that use of the processed binders will continue to increase. The savings in labor, in the amount of tobacco in storage, and in the handling of the tobacco are substantial. These savings will encourage the manufacturer to use processed binders in all brands in which consumers show no preference for natural binders. Some consumers will call for imported, all-Havana (made of imported Cuban tobacco), or handmade cigars. These are, however, a small part of total cigar consumption. The savings are relatively more important on the lower priced cigars, where the shift to processed binders will be made first. More than three-fourths of the cigars consumed in the United States sell for 10 cents or less. Cigars selling at 2 for

25 cents or less include nearly 90 percent of those consumed, while 94 percent sell for 15 cents or less. It appears reasonable to expect that eventually 80 percent or more of all cigars will have processed binders, as improvements are made in the making and use of the binders.

Tobacco Required Per 1,000 Cigars

The quantity of binder in cigars varies with the size and shape of the cigar, the kind of tobacco, and, to an extent, with the efficiency of the cigar-making operation. A thousand cigars of the same size have about the same number of pounds of binder in them, whether processed or natural. For the period 1950-54, a thousand cigars contained, on the average, 2.42 pounds of binders. These binder cuts came from about 5.25 pounds, packed weight, 2/ of tobacco sorted for binders. The remainder consists of 1.98 pounds of waste stems and fine leaf particles, and 0.85 pounds of cuttings recovered and used in scrap chewing tobacco or short fillers. Distributing this loss between the binders and cuttings, in proportion to the weight of each, gives a net packed weight requirement per 1,000 cigars of 3.88 pounds for natural binders and 1.37 pounds for the cuttings, or the total of 5.25.

The minimum requirement for a pound of processed binder is 0.9 pound of tobacco, packed weight. However, two recent developments indicate that this figure can be expected to increase to 1.0 pound of tobacco, packed weight, to produce 1.0 pound of processed binder. One of these developments is aimed at structural improvement of the processed binder and the other is the desanding of at least a part of the tobacco content to reduce machine maintenance problems. A thousand cigars with 2.42 pounds of processed binders requires 2.18 to 2.42 pounds, packed weight, of tobacco. This is 56 to 62 percent of the 3.88 pounds needed when natural binders are used. The difference is mainly due to the use of the entire tobacco leaf (including stems and cuttings) in making the processed binder, and, to a smaller extent, to additional ingredients. The effect that use of processed binders would have on the quantity of binder tobacco in 6 billion cigars, with varying proportions having natural binders, is shown in table 1.

The quantity of tobacco required as natural binders for 6 billion cigars would be 23.3 million pounds at 2.42 pounds per 1,000 cigars. If processed binders were used on half the cigars, the quantity required would be 11.6 million pounds for natural binders and 6.5 to 7.3 million pounds for processed binders, a total of 18.1 to 18.9 million pounds, or 4.4 to 5.2 million less than with all natural binders.

2/ Tobacco takes on and gives off moisture readily, changing weight by the amount of moisture. For this reason, tobacco is weighed at several stages as it passes through the marketing channels; for instance, when sold by the grower (farm sales weight), and when packed into cases or other containers to be stored and handled (packed weight). All calculations in this report where farm sales weight is used have been based on a conversion factor of 1.04 from packed weight.

Table 1.--Pounds of tobacco (net packed weight) in 6 billion cigars, with varying proportions having natural binders

Natural binders	Quantity		
	Natural binders	Processed binders	Total
Percent	Million pounds	Million pounds	Million pounds
100	23.3	--- ---	23.3
70	16.3	3.9 - 4.4	20.2 - 20.7
50	11.6	6.5 - 7.3	18.1 - 18.9
20	4.7	10.5 - 11.6	15.3 - 16.3
10	2.3	11.8 - 13.1	14.1 - 15.4

Commodities Sold by Growers

In the past, growers of cigar binder types did not sell packed tobacco for binders. Most sold the tobacco in bundles, at farm sales weight. They sold, in fact, two commodities jointly produced, one being tobacco to be sorted into binder grades for natural binders, and the other being stemming tobacco for scrap chewing and, to a small extent, for short fillers in cigars. They might sell the two commodities as separate lots of tobacco or the two might be separated by the buyer in the marketing channel. Some growers had such a small quantity of stemming tobacco in their crops that it did not pay them to divide it into sorting and stemming tobacco. The buyers threw out any stemming tobacco in the sortable tobacco they bought, as they sorted it into binder grades. Other growers divide their tobacco into two or three groups of grower grades: Binders, or the tobacco to be sorted; stemming; and fillers. The last two are used for scrap chewing or short fillers and are both what is here called stemming tobacco.

Some crops contained such a small quantity of sorting tobacco that the extra returns for sorting it into binders would not pay for the extra time and effort required to separate into the two or three grower grades. Such tobacco was straight stripped. It was sold almost entirely for stemming and was not sorted by the buyer. Similarly, the stemming and filler lots were not sorted by the buyers.

The tobacco for sorting brought a much higher price than stemming tobacco. A grower who stripped his tobacco into two or more lots did so with the intention of getting enough more for his sorting tobacco, or binders, to pay for the extra labor, even though he sold the lots of stemming and filler at a lower price. The cuttings are a byproduct from the binders, and are used for scrap chewing and short fillers. Cigar binder types of tobacco used in scrap chewing or short fillers consist of tobacco sold by the grower as stemming or fillers, the throwouts which the buyer separated from his binder grades, and the cuttings from the making of cigars. More than half the tobacco sold by the

growers of binder types has ended up as scrap chewing or as short fillers. Even of the tobacco sorted, not much more than half has gone into cigars as binders.

For years, buyers have bought a part of their supplies of Connecticut Broadleaf tobacco, type 51, sorted into grades by the growers. The rest is bought in the bundle. Connecticut Valley Havana Seed, type 52, is also bought in the bundle. The growers who sort into grades are paid different prices for different groups of grades. The Wisconsin grower may strip his tobacco into two or three groups or grower grades, selling each grade separately, or may straight-strip without any sorting at all, selling his crop for stemming.

Selling Tobacco for Processed Binders

Tobacco bought for processed binders is not sorted. This has led to the impression that any stemming tobacco would be suitable, which, however, is not the case. While some of the characteristics that are important in natural binders, such as lack of breakage of leaf, are not so important in tobacco for processed binders, good aroma, good taste, and improvement with fermentation are important. Grinding and additives improve the burning qualities, and the elasticity and thinness are determined by the processing.

The future market for the binder types will be for three uses instead of two. In addition to tobacco for sorting for binders and to stemming tobacco for scrap chewing, there will be tobacco for processed binders, not sorted into grades. Some effects that processed binders will have on the use and marketing of binder types of tobacco are shown in tables 2 and 3.

Tobacco Required, Natural Compared With Processed Binders

Table 2 shows, first, the amount of binder-type tobacco that would be used in 6 billion cigars with natural binders, and, second, the amount if half the cigars, or 3 billion, were made with natural binders and the other 3 billion with processed binders. The figures are presented on two bases, one assuming that 0.9 pound of packed tobacco would be required for a pound of processed binder, and the second that 1.0 pound would be required. In addition to 6 billion cigars, 36 million pounds of scrap chewing tobacco would be made. When all cigars have natural binders, 10 percent of the binders come from nonbinder tobacco. When half the cigars are made with processed binders, the half made with natural binders would use binder types only. Lower priced cigars now having binders from nonbinder types would have processed binders in the future. All of the stemming tobacco needed for scrap chewing would come from binder types. This would take the place of the cuttings and throwouts, which would not be available when processed binders were used. Tobacco for processed binders would come from the binder types. Growers of binder tobacco could be expected to have competition from growers of Pennsylvania seedleaf tobacco, type 41, and other nonbinder tobacco, as they have in the past, for binder and for other uses.

Table 2.---Estimated utilization of binder types of tobacco in 6 billion cigars, under given assumptions 1/, farm sales weight in millions of pounds

Item	All natural binders		50% basis <u>3/</u>		Half natural binders		62% basis <u>4/</u>	
	In cigars	Total	In cigars	Total	In cigars	Total	In cigars	Total
Stemming tobacco	--	13.0	--	19.8	--	19.8	--	19.8
Processing tobacco	--	--	6.8	6.8	7.5	7.5	--	7.5
Total	--	13.0	<u>5/</u> 6.8	19.8	<u>6/</u> 7.5	19.8	19.8	27.3
Sorting tobacco:								
Natural binders	<u>2/</u> 21.8	--	21.8	<u>2/</u> 12.1	--	12.1	<u>2/</u> 12.1	--
Cuttings (stemming)	--	7.7	7.7	--	4.3	4.3	--	4.3
Exported	2.0	--	2.0	2.0	--	2.0	2.0	2.0
Wrappers B/L6	--	.6	.6	--	.6	.6	.6
Throwouts (stemming)	--	8.5	8.5	--	5.1	5.1	--	5.1
Total	24.4	16.2	40.6	14.7	9.4	24.1	14.7	9.4
Grand total	24.4	29.2	53.6	21.5	29.2	50.7	22.2	29.2
								51.4

1/ In addition to 6 billion cigars, it is assumed there are 36 million pounds of scrap chewing tobacco. The same quantity of stemming tobacco is available from the binder types under both situations because the amounts not forthcoming from cuttings and throwouts are increased in the unsorted tobacco going for stemming.

2/ It is assumed that 10 percent of the binders would come from nonbinder types when all cigars had natural binders, and none when only half the cigars had natural binders. Lower priced cigars, which have most of the nonbinder-type binders, would use processed binders.

3/ Based on 2.18 pounds, packed weight, of tobacco required for processed binders for a thousand cigars. This is 56 percent of the 3.88 pounds, packed weight, of tobacco required per thousand cigars if all natural binders were used.

4/ Based on 2.42 pounds, packed weight, of tobacco required for processed binders for a thousand cigars. This is 62 percent of the 3.88 pounds, packed weight, of tobacco required per thousand cigars if all natural binders were used.

5/ Based on 2.18 pounds, packed weight, per thousand cigars. For 3 billion cigars, 6.54 million pounds, packed weight, would be required, or 6.8 million pounds, farm sales weight.

6/ Based on 2.42 pounds, packed weight, per thousand cigars. For 3 billion cigars, 7.26 million pounds, packed weight, would be required, or 7.5 million pounds, farm sales weight.

If half of 6 billion cigars were made with processed binders, the total tobacco required would decrease from 53.6 million pounds to either 51.4 or 50.7 million pounds, under the assumptions made. The tobacco to be sorted would decline from 40.6 million pounds to 24.1 million pounds. Unsorted stemming tobacco would be expected to increase from 13.0 million pounds to 19.8 million, farm sales weight, and it would require 6.8 million pounds of unsorted processing tobacco if 0.9 pound of tobacco were used per pound of processed binder, and 7.5 million pounds using 1.0 pound of tobacco per pound of processed binder. The quantity of unsorted tobacco required would increase with the increase in the use of processed binders, not only for that use but to replace the throwouts and cuttings used in scrap chewing tobacco.

Returns to Growers

Table 3 compares the returns to growers of binder types under the three situations shown in table 2. The average price for types 51, 52, and the binder lots of type 55, from which most natural binders come, was 48.5 cents for the crop years 1950-54. Prices for Southern Wisconsin, type 54, averaged 23 cents for that period and 26 cents for the 1956 crop. This type goes mostly for scrap chewing. The lower supply of stemming tobacco from the loss of cuttings and throwouts increased the price of Southern Wisconsin to 26 cents for the 1956 crop. The growers might be expected to receive a total of 22.7 million dollars if all the 6 billion cigars had natural binders, and 18.8 or 18.6 million dollars if half the cigars had processed binders. The significant shift expected would be the reduction in returns for tobacco to be sorted, from 19.7 million dollars to 11.7 million dollars. The tobacco sold that is not to be sorted would be expected to increase in value from 3 million dollars to 6.9 or 7.1 million.

Table 3.--Estimated returns to growers for binder-type tobacco with 6 billion cigars manufactured, with all natural binders and with half processed and half natural binders 1/

Commodity	All natural binders			Half natural binders					
				56% basis <u>1/</u>			62% basis <u>1/</u>		
	Price	Amount	Value	Price	Amount	Value	Price	Amount	Value
	Mil.	Mil.		Mil.	Mil.		Mil.	Mil.	
	Cts.	lbs.	Dol.	Cts.	lbs.	Dol.	Cts.	lbs.	Dol.
Stemming (unsorted) ...	23.0	13.0	3.0	26.0	19.8	5.1	26.0	19.8	5.1
Processing (unsorted) ..	--	--	--	26.0	6.8	1.8	26.0	7.5	2.0
Sorting (to be sorted) ..	48.5	40.6	19.7	48.5	24.1	11.7	48.5	24.1	11.7
Total or average	39.7	53.6	22.7	36.7	50.7	18.6	36.6	51.4	18.8

1/ The pounds and bases therefor are from table 1. The prices are not intended as estimates of the prices that actually would prevail. They are within the range that can be expected under the assumptions given.

The manner of competition between the growers to supply the changed market for their product will determine the level of prices for the different uses and the differentials that will be paid for the tobacco for the different uses. Should the smaller quantity of natural binders lead to increased competition among the growers for the market for tobacco to be sorted, the prices would go down. On the other hand, if the manufacturers find that they need to pay from 50 cents to 60 cents to secure the high quality of natural binder needed for the cigars selling at the higher price, the average price for sorted tobacco would increase. Should the manufacturers of processed binders find that certain areas or certain growers produce a leaf that is more desirable for their purpose, they may pay a premium to secure that tobacco in competition with the scrap chewing manufacturers. It also may be found that certain processed binder manufacturers will pay a premium for some type of tobacco to secure the kind of binders they want for their brands, as is now true of Broadleaf, type 51. Other data based on other assumptions can be substituted in the tables, depending upon the expected cost situation.

Importance of Production Costs

Adjustment of the supply to this new development in cigar manufacturing will depend not only upon the amount and kind of tobacco that manufacturers of cigars and scrap chewing will require, but on the costs to the growers in meeting this demand. Changes in demand necessarily raise questions of how to lower costs in production and marketing. It should be possible to lower the cost of producing and marketing tobacco for processing. Experience shows that the extreme care required in growing, harvesting, handling, sorting, and marketing tobacco for natural binders is not required for tobacco intended for processed sheet binders. The competitive situation among the areas growing binder types, and also with respect to other tobacco growers, will depend on costs in the various areas and among different growers. Increased mechanization and other changes in production methods, including the introduction of new varieties, will affect these costs.

Adjustments Since World War II, Indicated for the Future

The growers of binder-type tobacco have adjusted to a number of rather drastic changes in demand in the past. The most recent was the adjustment in acreage and production from the high prices of the immediate postwar period, 1945-1949, to the lower prices of the period 1950-1954. The data in table 4 show how the growers made that adjustment, and show also the first reaction to the processed binder in 1956. The prices in table 4, in each instance, are for periods 1 year earlier than the periods covered by the acreage and production data, to show the effect of earlier prices on production. For example, the drop in acreage for Connecticut Broadleaf from an average of 9.6 thousand for the period 1946-50 to 8.4 thous. acres for the period 1951-55 was an adjustment resulting from the decline in prices from an average of 59.6 cents for the years 1945-49, to 53.6 cents for the period 1950-54. There were significant differences in the adjustment by types within the binder tobaccos.

Table 4.--Price, acreage, and production of binder types of tobacco, specified periods 1/

Period	Price	Acreage	Production
	<u>Cents</u>	<u>1,000 acres</u>	<u>Million pounds</u>
Connecticut Valley Broadleaf (type 51)			
1945-1949	59.6	--	--
1946-1950	--	9.6	15.1
1950-1954	53.6	--	--
1951-1955	--	8.4	13.9
1955	44.9	--	--
1956	--	4.2	7.1
Connecticut Valley Havana Seed (type 52)			
1945-1949	60.6	--	--
1946-1950	--	8.6	14.5
1950-1954	46.0	--	--
1951-1955	--	6.1	10.9
1955	35.0	--	--
1956	--	2.9	5.3
Southern Wisconsin (type 54)			
1945-1949	28.0	--	--
1946-1950	--	10.3	14.9
1950-1954	23.4	--	--
1951-1955	--	5.4	8.0
1955	22.9	--	--
1956	--	3.9	6.0
Northern Wisconsin (type 55)			
1945-1949	35.5	--	--
1946-1950	--	13.6	19.9
1950-1954	31.1	--	--
1951-1955	--	9.4	13.5
1955	24.6	--	--
1956	--	7.4	11.2

1/ The year-to-year data, 1947-1956, are given in the December 1956 issue of the Tobacco Situation, p. 41. A small production of binder tobacco, type 53, is grown in central and southern New York and northern Pennsylvania.

The acreage of Broadleaf, type 51, declined the least from 1946-1950 to 1951-1955, and Southern Wisconsin, type 54, declined the most. The next largest decline was in Northern Wisconsin, type 55. Some of the cigar brands using Broadleaf have increased their sales volume, while there has been considerable decrease in the volume of scrap chewing. This latter is the principal outlet for Southern Wisconsin tobacco and for a large part of the tobacco in northern Wisconsin.

The reaction in 1956 to the processed binder was greater in the Connecticut Valley than in Wisconsin. The indications for 1957 are that the acreage of both Connecticut Valley types will be reduced further. The March indication was 5,900 acres for 1957, compared with 7,100 acres harvested in 1956. There has been additional sign-up in the Soil Bank since March, so that the Connecticut Valley acreage will probably be even less than 5,900. However, the indicated Wisconsin acreage for 1957 is slightly larger, 12,100 acres compared with 12,000 acres harvested in 1956. The increase in Wisconsin is due to the somewhat improved prices for tobacco to be sorted for natural binders and to the increased demand for stemming tobacco. This increase has been the result of a smaller supply of stemming tobacco for scrap chewing, caused by the lower supply of throwouts and cuttings due to the reduced use of natural binders. The decrease in acreage in the Connecticut Valley in both 1956 and 1957 was not only a response to the processed binder, but also to the Soil Bank program. A large acreage has been placed in the Soil Bank in both years.

It is reasonable to expect that the growers of the different types will react somewhat differently to the introduction of processed binders. As in the past, their reactions will be influenced both by the quantity and kinds of tobacco demanded by manufacturers and by the growers' own costs in supplying those requirements. Should the growers produce more than is needed, the price probably will go down and the supply will be brought into balance with demand. The excess supply will be eliminated when the growers whose costs are relatively high turn to alternative uses for their resources of land, sheds, labor, and other items. On the other hand, if enough tobacco of the quality required for a use is not produced, the price will rise. Growers will be attracted by the higher prices and will increase the supply, bringing it into balance with the demand. These adjustments will be modified by the effect of the growers' participation in acreage allotment, price support, and Soil Bank programs.

