Flue-Cured Tobacco: Price Differences Among Types 11(a)-13

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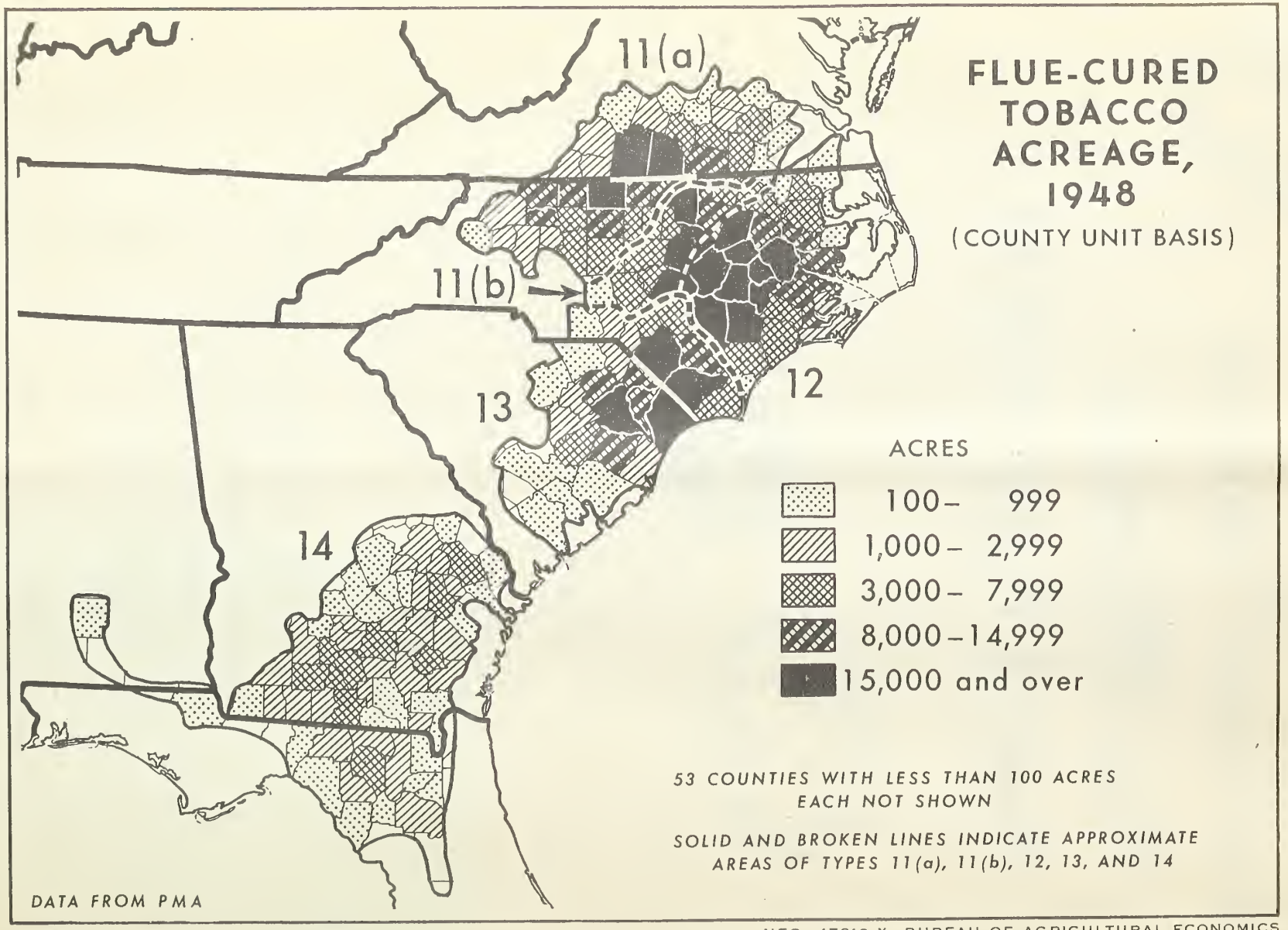

U. S. DEPARTMENT OF AGRICULTURE

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FLUE-CURED TOBACCO: PRICE DIFFERENCES AMONG TYPES 11(a)-13 [1/]

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CONTENTS

SUMMARY

Two aspects of flue-cured prices are given attention in this report. One is the extent to which the average price of a group of United States grades differs from one type of flue-cured tobacco to another. These comparisons show on the basis of a whole season the size and direction of price differences among belts. As the price averages are for groups of grades identical in each belt, it may be presumed that differences in price are not caused by differences in quality. Such price comparisons for the 1945-49 seasons are shown in table 1, page 6. The second aspect is the way in which the average price of a group of U. S. grades of a single type varies during the course of a marketing season and the factors that are apparently associated with this variation. This also permits price comparisons among belts for various periods within a season. In this connection, the influence on flue-cured prices of changing quantities of certain qualities of leaf sold in the various flue-cured belts from week to week in the course of the marketing season was investigated.

Flue-cured tobacco is grown in the coastal States from southern Georgia and northern Florida as far north as central Virginia. Within this area are five belts, each of which produces a type of flue-cured tobacco. Southern Georgia and northern Florida produce type 14; eastern South Carolina and southeastern North Carolina, type 13; eastern North Carolina, type 12; central North Carolina, type 11(b); and the Piedmont section of North Carolina and Virginia, type 11(a).

The five types of flue-cured tobacco are graded at auction markets according to Government quality standards. These standards classify tobacco of each type into approximately 120 grade designations. It is, therefore, possible to make a selection of grades for price comparisons among types.

Differences in price for the individual types of flue-cured tobacco are more accurately measured by comparing prices for an individual grade or a group of identical grades of comparable quality than when over-all season averages for individual types are compared with one another. When over-all season average

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1/ The research on which this report is based was made under the authority of the Agricultural Marketing Act of 1946 (RMA, Title II).

prices are compared, differences among belts reflect differences in the average quality of tobacco sold, as well as actual differences in price.

From 1945 to 1949, prices of selected grades[2] in type 11(b) or type 12 ranked highest most frequently, while those in type 11(a) or type 13 most frequently ranked lowest. This relationship of prices for the four types[3] of flue-cured tobacco studied held for all quality groups for both the season as a whole and for the weekly average prices during a season.

Highest weekly prices occurred most frequently between the seventh and fourteenth weeks during the marketing season for types 11(a)-13 and the lowest either during the first 5 or the last 5 weeks of the season. Some have attributed the low prices at the beginning or end of the marketing season to special conditions during those parts of the season. It was thought that prices were low at the beginning of the season possibly because purchasing companies had not yet fully appraised the size and nature of the flue-cured crop and were low at the end of the season because buyers made final adjustments in their purchases for the season. An evaluation of the ranking of prices by types during the weeks when all four types were marketed simultaneously showed conclusively that prices during the beginning or the end of the marketing season were not lowest primarily because of special conditions that affected those parts of the season.[4] Other factors apparently were responsible for the price pattern that prevailed.

The proportion of total sales which selected grades accounted for in the different belts varied considerably from one week to another. Apparently, however, differences in quantities of tobacco marketed in a single week did not influence intertype price differences for that week for any of the groups of selected grades.

Background Material[5]

Flue-cured tobacco is grown in the coastal States from southern Georgia and northern Florida as far north as central Virginia. This area is divided into five belts, each of which produces a type of flue-cured tobacco. Type 14, Georgia flue-cured tobacco, is grown in southern Georgia and northern Florida; type 13, South Carolina and Border North Carolina flue-cured, is produced in eastern South Carolina and southeastern North Carolina; type 12, Eastern flue-cured, in eastern North Carolina; type 11(b), Middle Belt flue-cured, in central North Carolina; and type 11(a), Old Belt flue-cured, in the Piedmont section of North Carolina and Virginia.

2/ See notes on grade selections on page 11.

3/ Prices of types 11(a), 11(b), 12, and 13 tobacco were compared. Prices of type 14 tobacco were omitted because it is marketed loose instead of tied in hands. It is not practicable to separate the influence of the different form in which type 14 tobacco is marketed from other factors that may operate to cause it to sell consistently for less than the same grades of the other four flue-cured types.

4/ See footnote 8/ on page 8.

5/ Background material prepared by Arthur G. Conover.

Flue-cured tobacco is the largest single class of tobacco grown in the United States. The six classes of domestically produced tobacco--flue-cured, fire-cured, air-cured, cigar filler, cigar binder, and cigar wrapper--include a total of 24 types grown in the United States (25 if the Puerto Rican type is included). Production of flue-cured tobacco in the years since World War II has ranged between 55 and 63 percent of the tobacco produced in the United States. During the five marketing seasons, 1945 through 1949, the total quantity of flue-cured tobacco auctioned each season averaged 1,200 million pounds, subdivided as follows: 257 million of type 11(a), 148 million of type 11(b), 396 million of type 12, 263 million of type 13, and 136 million of type 14. This huge volume of leaf went to auctions located in about 80 to 90 towns and cities in the Atlantic seaboard States from Florida to Virginia. The first flue-cured marketings of a season start in the Georgia-Florida area in the last half of July. By the latter half of September, the last group of markets in Virginia and North Carolina begin sales. Flue-cured marketings are generally completed by December. In some years, however, they continue into January, although rarely into February.

In recent years, annual exports of flue-cured leaf have been substantial, usually accounting for four-fifths of the total exports of unmanufactured tobacco from the United States. During the 1945-49 marketing years, the average exports of flue-cured tobacco totaled 446 million pounds (farm-sales weight) or 37 percent of the average production for those years. From 1945 to 1949, these exports ranged between the low of 359 million pounds in 1947 and the high of 552 million pounds in 1946. Approximately three-fourths of the flue-cured exports go to the countries of western Europe. This includes the United Kingdom, which is the leading importing country. The remaining one-fourth goes to numerous other countries throughout the world. Grades of tobacco exported vary considerably by country and, except for the United Kingdom and a few other countries, tend to include grades of lower quality than those purchased for eventual consumption in cigarettes in this country. Consequently, variations in export demand probably affect somewhat price differences between grades and possibly between types.

Flue-cured tobacco from a current year's crop is not usable in manufacture immediately following its purchase at auction. First, the tobacco is redried and then prepared for storage. Storing the leaf for a considerable period is an essential part of the processing operation before manufacture of the tobacco product itself is begun. Aging of freshly cured leaf is necessary to remove rawness or irritating properties and to develop aroma. The aging period varies in length, but from 18 to 24 months are usually desirable. To insure consistency of blend and uniformity of the final product, manufacturers must maintain large stocks of leaf tobacco of various types and grades from the crops of several different seasons.

The size of carry-over stocks and the composition of their grades and types are among the factors that can influence the season average price received by growers for the current crop of tobacco. In any single season, short-term fluctuations in the volume of marketings would not be expected to affect market price very much in view of the large inventories generally carried by manufacturers. During 1945-49, total stocks of flue-cured tobacco in the United States on July 1 (just before the marketing season begins) ranged between 1.7 and 2.2 times the preceding year's domestic usings, or enough for a period of 20 to

26 months. These total stocks were held in varying proportions by manufacturers, dealers, or under Government loan through the growers' Flue-Cured Cooperative Stabilization Corporation. Among the dealers were those who carried on an export business.

Flue-cured tobacco is used primarily for the manufacture of cigarettes. It has been estimated that in post-World War II years cigarettes have accounted for around 95 percent of the total domestic use of flue-cured tobacco. The remainder goes mostly into smoking mixtures and into plug chewing tobacco. Cigarettes manufactured in this country characteristically include flue-cured, Burley, Maryland, and imported tobacco, frequently referred to as "Turkish." Proportions of each kind vary to some extent among manufacturers, but flue-cured tobacco generally composes more of the average cigarette than the others. Leaf blends of individual manufacturers are kept secret. However, it may be reasoned that the substitutability of one kind for the other is kept within fairly narrow limits, and that such classes of tobacco as fire-cured and dark air-cured are not at all substitutable for the kinds of cigarette tobacco mentioned above. Among the flue-cured types, it seems likely that closely similar grades may be substitutable one for the other to a fairly wide extent. Blending leaf grades and types to obtain a favorable combination of all quality elements in a uniformly finished product is a complex operation concerning which few, if any, statistics are publicly available.

PURPOSE OF THE STUDY

Variations in market prices for the different flue-cured types of tobacco have long been of interest to growers, warehousemen, and others connected with the tobacco trade. Differences in prices among types of flue-cured tobacco have been studied as part of an Agricultural Marketing Act of 1946 (RMA, Title II) project in the Bureau of Agricultural Economics. If the reasons for these differences in price could be explained, it might be possible for growers to make adjustments in production or marketing practices that would equalize prices among the flue-cured belts. If these changes brought about prices in all belts equal to those in the belts presently commanding the highest prices, total income from flue-cured tobacco would be increased significantly.

This report is concerned with the influence of the quantity of leaf of specified quality marketed upon differences in price among the flue-cured belts. It answers the question as to whether prices of tobacco leaf of a certain quality are depressed in one belt when marketings of that particular quality of tobacco are large in relation to total marketings in that belt, and whether prices tend to rise when marketings of that quality of tobacco are small in relation to total marketings in the belt.

If it were found that the price of any quality of tobacco leaf is affected by the proportion of total marketings which tobacco of this quality represents, growers might be able to regulate the quality composition of their marketings throughout the season so that the prices received during the season for this quality of leaf would be more nearly stabilized. It would be expected that this would yield growers a larger gross return. If this practice were followed by all growers, it would be expected that differences in price still existing between individual markets and between belts would be caused by other influences.

One phase of the study upon which this report is based was to measure differences in price more accurately by deriving prices for groups of identical grades in each type. This involved ascertaining the extent and direction of differences in price among types 11(a)-13 flue-cured tobacco for three quality groups of leaf: better, medium, and poorer, for the seasons of 1945 through 1949. A second phase was to study the intertype price relations for individual weeks within these seasons in order to establish more precisely the nature of the differences. In this connection, the influence on price of proportions of total marketings in the respective flue-cured belts accounted for by leaf of specified quality was investigated.

Another phase of the study was to investigate whether differences in price among types were related to the fact that marketing seasons in the different belts were not exactly the same. Although considerable overlapping occurs when auctions are going on simultaneously in all the belts for types 11(a)-13 flue-cured tobacco, type 13 markets open before the others and type 11(a) markets are the last to close.

SEASON AVERAGE PRICES[6/]

In making price comparisons, grades were assigned to three quality groups: better, medium, and poorer. For the methods used in selecting grades, see notes on page 11.

From 1945 to 1949, type 11(b) season prices were highest for 3 of the 5 years within the better and medium grades, and type 12 prices were highest for 4 years within the poorer grades.

Lowest prices of the better group occurred in type 13 for 3 of the 5 years, lowest prices of the medium group were in type 11(a) for 4 years, and lowest prices of the poorer group occurred in type 11(a) for all 5 years.

In general, prices varied less from one type of flue-cured tobacco to another for better grades than for medium grades, and most for poorer grades. This was true both in terms of cents per pound and in terms of percentages of types 11(a)-13 average price for the respective quality groups. Compared with types 11(a)-13 averages, the season average prices of better grades in any type during these years differed from about 0.1 cent per pound to a maximum of about 3 cents, while the difference in season average prices of poorer grades amounted to from 0.1 cent to about 3.5 cents per pound. As a percentage of the types 11(a)-13 average prices for the respective quality groups, the largest differences in any type during these seasons amounted to 4.5 percent in the better grades and to almost 19 percent in the poorer grades.

These comparisons indicate that poorer grades are affected more than better grades by the factors that cause differences in price among typesof flue-cured tobacco and that prices of type 11(a) and type 13 tobacco frequently are lower

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6/ Season average price as used here is the simple average of season prices of individual grades for each quality group in each type. Prices for individual grades are from the Production and Marketing Administration. They are based on a sample of auction bids made throughout the season in representative markets.

than prices of type 11(b) and type 12 tobacco. As these averages are based on whole seasons, prices for individual weeks within the seasons were examined in order to determine how prices for a single type varied throughout the course of a marketing season and how weekly prices of these four flue-cured types were related.

Table 1.- Season average price per pound, flue-cured tobacco, types 11(a)-13 selected grades, and percentage comparisons, 1945-49

Season	Average price per pound by type							
	Actual				As a percentage of average of types 11(a)-13 1/			
	11(a)	11(b)	12	13	11(a)	11(b)	12	13
	Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent
	Better grades							
1945	48.65	49.35	48.20	46.30	101.1	102.6	100.2	96.2
1946	58.95	60.60	63.55	63.80	95.5	98.2	103.0	103.4
1947	57.90	57.70	57.05	57.10	100.8	100.4	99.3	99.4
1948	65.25	66.10	65.75	65.25	99.5	100.8	100.2	99.5
1949	64.40	64.95	64.05	63.20	100.4	101.2	99.8	98.5
	Medium grades							
1945	43.89	44.00	44.78	44.22	99.2	99.5	101.3	100.0
1946	41.11	48.22	50.11	47.56	87.9	103.1	107.2	101.7
1947	41.89	44.89	43.67	42.22	97.0	104.0	101.2	97.8
1948	50.33	52.44	51.22	51.00	98.2	102.3	99.9	99.5
1949	48.89	52.33	52.00	46.78	97.8	104.7	104.0	93.6
	Poorer grades							
1945	31.36	33.75	37.57	36.61	90.1	96.9	107.9	105.1
1946	18.02	23.57	23.96	20.48	83.8	109.6	111.4	95.2
1947	13.02	16.07	17.95	16.75	81.6	100.8	112.5	105.0
1948	18.93	21.34	21.82	22.41	89.6	101.0	103.3	106.1
1949	14.86	19.77	20.89	17.68	81.2	108.0	114.2	96.6

1/ Season average price of each quality group of each type as a percentage of types 11(a)-13 average of corresponding quality group.

WEEKLY AVERAGE PRICES 7/

Weekly average prices of selected grades of flue-cured tobacco, types 11(a)-1 from 1945 to 1949 for each year except 1945 followed a general trend from low prices in the beginning of the marketing season, to high prices in the middle of

7/ Weekly average price is the simple average of weekly prices of individual grades for each type in each quality group. For weeks in which prices were not quoted for certain individual grades because they were not sold in sufficient quantities, an average price for those grades was calculated and used in computing the average price of the quality group.

the season, to low prices toward the end of the season. Price ceilings were in effect during the 1945 season and prices did not follow the usual seasonal pattern.

From 1946 through 1949, the high weekly price of each quality group occurred between the seventh and fourteenth weeks of the marketing season for types 11(a)-13. The low weekly price was reached for each quality group during the first 5 or the last 5 weeks of the season, except for the medium group in 1946.

During each year from 1945 to 1949, the highest weekly price in each quality group occurred more often in type 12. For the better and medium groups, type 12 prices were highest in 4 of the 5 years. In each of the 5 years, they were highest for the poorer group.

Lowest weekly prices during these years occurred most frequently in type 11(a) for the medium and poorer grades. They were lowest in 3 years for the medium group and lowest in all 5 years for the poorer group. The lowest weekly price of the better group did not occur as consistently in any one type.

Price differences from the average of types 11(a)-13 for weeks during a season when all of the four flue-cured types were marketed generally were larger in each type for the poorer grades than for the better grades, both in absolute terms and in relation to the average prices of types 11(a)-13. No consistency was found for any one type in price differences from the averages for the various weeks, either in absolute or relative terms. This indicates that the factors that influence differences in price among flue-cured types affect the poorer grades more than they affect the better grades.

Price Differences During Weeks When All Four Types Were Marketed.--A possible explanation for the wide variations in weekly average prices is the time element. For instance, prices of types 11(a) and 13 for all quality groups usually are lower than prices of types 11(b) and 12, both for the season as a whole and for weeks within a season. Lowest weekly prices usually are found at the beginning or end of the season, at a time when only type 13 or type 11(a) markets are open, or when the marketing of either types 11(b) and 12 are getting under way or are being completed. The question arises as to whether type 13 low prices at the beginning of the season result from incomplete knowledge on the part of purchasing companies with respect to size and quality of the crop throughout the flue-cured belt or whether they are due primarily to factors such as technical differences between grades of type 13 tobacco and the same grades of other flue-cured types. If incomplete knowledge of the size and quality of the whole flue-cured crop is the important factor, buyers would be expected to bid conservatively for the type 13 offerings during the first weeks of selling, until markets in the type 12 district had opened and the size and nature of the majority of the flue-cured crop had been more fully appraised.

With respect to the low prices of type 11(a) tobacco at the end of the season when type 12 and 13 markets have closed and marketings in the type 11(b) district are being completed, the question arises as to whether the low prices result from final adjustments in purchases made by buyers for the season. In other words, would the low prices at the end of the season be due to too heavy buying of other types during the middle of the season with respect to requirements for leaf, and therefore, less interest by purchasing companies in offerings at the end of the season?

An examination of the prices paid for types 11(a) and 13 tobacco in relation to prices paid for other flue-cured types during the middle of the marketing season when all types sell at the same time should throw some light on these questions.

From 1945 to 1949, all of these types were marketed simultaneously during 22 weeks, or from 3 to 6 weeks in each season. If the low weekly price during the season were due only to a seasonal factor, it would be expected that during these weeks when all types were selling, type 11(b) or 12 prices would rank in both first and second places and type 11(a) or 13 prices would rank in both third and fourth places for a sixth of the time, or in between 3 and 4 of the 22 weeks. If the weekly prices ranked in this order for substantially more than 4 weeks, it would be assumed that some systematic factor operated to produce differences in price between types 11(b) and 12 and types 11(a) and 13. In that case, the low weekly prices of types 11(a) and 13 at the beginning and end of the season would not be the lowest of the season primarily because of special circumstances during those parts of the season.

Ranking the weekly prices for the 22 weeks during the 5-year period when all types were marketed simultaneously showed that the weekly price of either type 11(b) or type 12 was in both first and second places and that the weekly price of either type 11(a) or type 13 was in both third and fourth places for 13 weeks in the better group and for 15 weeks in the medium and poorer groups.

This test provides strong support[8/] for the conclusion that low weekly prices, which usually fall during the first or the last 5 weeks of marketing, were not low only because of special circumstances at the beginning or end of the marketing season for types 11(a)-13. It, therefore, suggests that other factors operate to cause price differentials between types 11(a) and 13 and types 11(b) and 12.

Effects of Quantities of Selected Grades Marketed on Intertype Price Differences.--A possible factor that might cause these intertype price differences for any quality group apparently was the proportion of total sales of a particular type represented by sales of that quality group. For instance, if sales of type 11(a) better grades were a relatively small part of the total sales of type 11(a) during a week compared to the proportion of total sales of type 11(a) represented by better grades during the previous week, it would be expected that the price of type 11(a) better grades would be higher in the second week, other things remaining the same. It would also be expected that the price of better grades would vary from markets of one type to markets of another type whenever the proportions of total sales in the respective types accounted for by better grades differ widely.

This assumes that manufacturers are willing to pay higher prices for grades of tobacco that happen to be scarce during a short period such as a week, so that

8/ If no systematic factors caused differences in the prices of these four types, the chances of getting as great or more frequent ranking of prices of type 11(b) or 12 in both first and second places and prices of type 11(a) or 13 in both third and fourth places would be for the better group, about 1 in 100,000 repeated observations, and for the medium and poorer groups, about 1 in 10 million.

the average quality of their purchases for the week would be approximately equal to the quality of the standard flue-cured component used in the manufacture of their product. If savings could be made in subsequent handling and sorting by acquiring the desired proportions of uniformly graded leaf, this would permit payment of higher prices for grades that at any time were relatively scarce in the markets of one of the belts.

Selected grades of each quality group accounted for widely different percentages of total sales in the respective types from one week to another and from one type to another. For instance, the better group accounted for from 19 to 30 percent of the total sales of type 11(a) in the 14 weeks of the 1947-49 marketing seasons in which all four types were sold. In the week ending September 29, 1949, better grades accounted for 20 percent of total type 11(a) sales, 19 percent of total type 11(b) sales, 30 percent of total type 12 sales, and 25 percent of total type 13 sales.

It was thought, also, that buyers might regard the quality composition of the marketings from week to week as an indication of the quality of the flue-cured crop in each belt. So far as important buying companies revise their estimates of the quality of the crop in any one of the flue-cured belts in the light of changes in quality of its weekly marketings, prices in that belt would tend to change inversely with changes in the quality of marketings. This influence would probably be more important in the early part of the season.

In order to test these possibilities, correlations were run for each quality group to test the relation between intertype relative prices and the percentages of total sales the quality groups represented in their respective types. Intertype price differences, represented by ratios of the price of one type of the average price of types 11(a)-13, were used as the dependent variable. For example, in attempting to explain the price differences between type 11(a) and other flue-cured better grades, the dependent variable was the type 11(a) better grades price divided by the types 11(a)-13 better grades average price, and the four independent variables were the percentages of total sales of each type accounted for by better grades.

The number of observations available was small. It was necessary to estimate the weekly sales of selected grades by producers. Records for doing this are available beginning with 1947 only.9/ For 1947 through 1949, all

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9/ There are no records of the number of pounds of individual grades of flue-cured tobacco sold. It was, therefore, necessary to estimate the number of pounds of selected grades for each quality group sold weekly in each of the four types. These estimates were made from data reported in the Market News Service sample.

Beginning with 1947, the number of pounds, as well as prices and number of lots, for each grade were reported in the sample. Estimates of the number of pounds of selected grades sold weekly in all markets of each flue-cured type were made based on the number of pounds of selected grades in the sample during the week. The percentage of total pounds in the sample that selected grades constituted for each week was computed and this percentage was multiplied by the total number of pounds of producers' sales in all markets of the type for the week to obtain an estimate of the total number of pounds of selected grades

four types were sold simultaneously during 14 weeks. Correlations based on these 14 observations failed to yield results that differed significantly from zero. The coefficients of determination obtained ranged from .42 to .74. An attempt was made to obtain significant results from the limited data available by deriving the coefficient of multiple correlation from simple correlation coefficients which were based partly on unmatched observations from the weeks when fewer than four types were sold. This increased considerably the number of observations on which some of the simple correlation coefficients were based, but the results still did not differ significantly from zero.

As a further check on the possible relation between weekly intertype price differences and quantities of the various quality groups offered in the market, the intertype variation in price was compared with the intertype variation in supply. A coefficient of variation $\left(\frac{\sigma}{\bar{x}}\right)$ of the intertype price ratios was computed for each intertype comparison in price (type 11(a) price/type 11(b) price, etc.) for each quality group and compared with the corresponding supply coefficient of variation. Two separate coefficients of variation in supply were computed in each case. One was based on the ratio of percentages which the quality group constitutes of total weekly marketings in each of the two types concerned. The other was based on the ratio of actual pounds of tobacco of the quality group marketed in each of the two types concerned.

If a price coefficient of variation is absolutely small and if the corresponding coefficient of variation in supply is large in relation to it, changes in ratios of supply are not important causes of changes in price ratios.

Comparison of the price ratio coefficient with the supply ratio coefficient shows, in the first case, whether intertype differences in price are closely associated with changes in the percentages which are accounted for in total sales of respective types by selected grades. It tends to show whether changes in percentages which a quality group accounts for affect price, and might therefore, be an important cause of intertype differences in price. In the second case, comparison of the price and supply coefficients of variation show whether intertype differences in price are closely associated with changes in the actual number of pounds of selected grades marketed in the types concerned. Both comparisons tend to show whether the two types of flue-cured tobacco concerned are competing products (that is, direct substitutes for each other) or whether they are distinctly different products for which buyers will pay different prices. If they are direct substitutes, their relative supply will affect their relative prices very little. The converse, however, is not necessarily true in this instance.

Price and supply coefficients of variation for types 11(a)-13 flue-cured tobacco are shown in table 2. In all cases, price coefficients are absolutely small and supply coefficients are large in relation to them. This indicates

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sold in all markets of the type during the week. Weekly estimates of total sales of selected grades were adjusted in line with estimated season total sales of selected grades for each type. From these total figures, percentages which selected grades of each quality group accounted for of total weekly sales for each type were computed.

that the proportion of total marketings in a type which a quality group constitutes is not an important cause of intertype differences in price.

The intertype differences in price change most from week to week for poorer grades and least for better grades, as indicated by the relative size of the price coefficients.

Table 2.- Coefficient of variation of price and supply of flue-cured tobacco, by grade and type1/

Type	Coefficient of variation		
	Price ratio	Supply ratio of quality group to weekly marketings based on--	
		Percentages of respective types	Actual pounds
	Better grades		
11(a)/11(b)	0.8	14.6	24.3
11(a)/12	1.1	27.7	37.3
11(a)/13	1.4	38.7	106.2
11(b)/12	1.1	20.8	24.2
11(b)/13	1.7	41.1	103.7
12/13	1.6	27.1	127.9
	Medium grades		
11(a)/11(b)	4.3	25.6	16.5
11(a)/12	5.7	62.0	30.0
11(a)/13	5.8	64.5	128.0
11(b)/12	4.4	40.2	30.0
11(b)/13	6.0	42.8	115.2
12/13	4.2	35.9	118.0
	Poorer grades		
11(a)/11(b)	9.1	17.7	30.0
11(a)/12	13.6	36.3	47.9
11(a)/13	11.0	34.1	190.0
11(b)/12	8.0	44.0	40.3
11(b)/13	10.0	38.6	176.0
12/13	12.6	39.0	112.8

1/ Based on 14 weeks in the 1947-49 seasons when all of types 11(a)-13 were sold.

Notes on Grade Selection.--Better grades: B1L, B1F, B2L, B2F, B3L, H1F, H2F, H3F, C1L, C2L, C3L, C3F, C4L, C4LV, C4F, C5L, X1L, X1F, X2L, and X2F; medium grades: B4FM, X3LV, X3FV, X3FM, X4L, X4LV, X4F, P3F, and P4L; and poorer grades: B6R, B6GL, B6GF, B6GR, X5FM, P5L, P5F, P5G, N1L, N1R, N1G, N2L, N2R, and N2G.

Price was used to determine the appropriate quality group for a grade. Grades were selected on the basis of the consistency of their prices relative to prices of all grades for the whole flue-cured belt, types 11(a)-14. Selections for each group (better, medium, or poorer) were limited to grades that fell in the same third of the range of season average grade prices for the flue-cured belt as a whole for at least 5 years between 1942 and 1948. Grades having prices that fell in the highest third of the season average price range for types 11(a)-14 are referred to as better grades, those in the middle third of the range as medium grades, and those in the lowest third as poorer grades. Of these grades, only those that met this standard for one of the quality groups in all of the four types of flue-cured tobacco were used. The selection of United States grades, therefore, is identical among the types of flue-cured tobacco for each quality group.

This method of grade selection assumes that relative price of a United States grade during a period of years is a fairly accurate measure of quality or relative usefulness of the grade compared with other grades. It assumes that the influence of other factors which also affect leaf prices, such as the quantities of a grade and of other comparable grades available from the current crop and the characteristics of the leaf stocks in the hands of manufacturers and dealers, balances out during a period of time.

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