

EFFECT OF CROP FORECASTS ON WHEAT PRICES

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INTRODUCTION

Purpose of Study

The purpose of this study is to determine the effects of private and government crop estimates on the price of wheat. The condition of the wheat crop from the time of sowing to harvest, and the probable yield are vital questions in the minds of the people of all nations in the temperate zone. Because of the large demand for wheat and the role that income from wheat plays in farm income, large groups of people are interested several months before harvest in the probable production of wheat. For these reasons estimates of production are made in advance of harvest.

The price of wheat is the result of the composite judgment of a large number of individuals located in widely separated areas, so that anything which affects the individual also affects the price he will pay for wheat. This is reflected in the wheat market and the price is set for a time, until another factor influences the individuals some way and then a new price is set. In this study, the author has tried to separate one of the factors effecting the price of wheat and to determine its

influence.

Method of Making Crop Reports

Estimates of wheat production prior to harvest are not a recent development. There is ample evidence in a letter of James L. Earle, President of the Maryland Agricultural Society, and elsewhere to indicate that prior to 1839, farmers were somewhat resentful of profits made by dealers and speculators in farm products through the circulation of misleading reports concerning crops and through producers' lack of knowledge of market values (1). In the past, the price of wheat has been manipulated to some extent by issuing false reports concerning the condition of wheat. At the present time the effect of rumors are regulated by both the government and the various exchanges. No report on estimated production is allowed on the exchanges unless it comes from a recognized source.

The crop reporting service of the United States is the result of more than 90 years of gradual development (1). In the summer of 1863, the Commission of Agriculture began to publish monthly and bimonthly reports on the condition of crops based on voluntary information received from crop correspondents in each county. Work

was carried along these lines until 1912, when the Crop Reporting Board, organized in 1905, began to forecast production of important crops prior to harvest. Estimates of acreage are made on "sample farm acreage," which are records of actual acreage of the crop on farms of crop reporters. In 1925 the highway frontage of crops measured by a "crop-meter" attached to an automobile was first used to indicate acreage changes. By the use of these two methods, accurate data regarding acreage are obtained.

Estimated production is calculated from the condition figures, which are made on the basis of a normal crop and acreage figures by means of scatter diagrams. The condition per cent and the yield in bushels are plotted and a curved line is fitted to the dots. The graphic method of forecasting, which was definitely adopted in 1930, has several distinct advantages (1).

1. Lines of best fit (to be used as a basis for forecasting) may be established freehand or mathematically before the current data are available.

2. The method is not limited to linear relationships.

Years that fall "off the line" stand out and can be studied separately or in connection with other simi-

lar years.

4. Frequently one or more distinct "levels" of relationship are observed. Research into similarities in years on the several levels make it possible to improve the forecasts.

5. The method is not limited to condition-yield relationships but can be used with any measurable data.

6. Several factors may be related to yield by graphical multiple correlation methods.

Private crop estimates were made prior to 1839 (1). The author has not been able to find specific data as to when private crop estimates were first made. Private estimates are made somewhat in the same manner as are the government estimates, except that more personal work is done. The private crop reporter has a staff of correspondents ranging from 3,000 to 3,500 scattered over the country. These correspondents, who are farmers, elevator men and local bankers send in their observations. These are combined with personal inspection trips and study of weather records to make up the private crop reporters estimate of production. The private reporters are, for the most part, in closer touch with conditions as they exist and respond quicker to any wide change in

conditions. The personal inspection trips of the various crop reporters enable them to get a good view of the various conditions, also the private reporters are men who have had a great deal of experience in this sort of work and their estimates are accurate.

Review of Literature

There has been little work done on the effect of crop reports on prices. Some authors have made general statements, however, on the probable effects of crop reports. Some of these are as follows:

Babson (2) says: "It has been well proved that this forecast made by the government is better than any forecast which at the present time can be made by any association of merchants or bankers independently."

Clark and Weld (3) have this to say: "News gathered by the government is not always so timely as that obtained by large individual firms, so that these are often in possession of essential facts some time before those who depend on the government. On the other hand the news gathered by the government is likely to be much more extensive and accurate. This is partly due to the greater resources which may be made available to cover the expense involved, and sometimes due to the feeling that govern-

mental agencies are disinterested, to the greater spirit of cooperation which is likely to prevail among those with facts to contribute."

Gladfelter (4) says "The government crop report gives us a truer picture of conditions as they exist, but the crop situation is only one of many factors, and frequently a minor one in price determination."

Source of Data and Scope

The data used in this thesis were obtained from four sources. The open interest and volume of trading for the period from 1921 to 1932 inclusive were obtained from Wheat Futures (5). For the period from 1933 to 1936 inclusive, the open interest and volume of trading was taken from "Trade in Grain Futures" (6).

The open interest and volume of trading at Chicago were used because Chicago is the dominant futures market. The price used was the highest price for the day at Kansas City. The Kansas City market was used because it is the dominant winter wheat market and is the dominant market in this section of the country. The prices were obtained from the "Kansas City Board of Trade Yearbook" (7). The estimates on production were obtained from the "Grain Market Review" (8).

This study includes the crop reports for the months of April, May, June, July, August, September and October from the years 1921 to 1936 inclusive. The price and volume of trading were obtained for the entire period, but the open interest was obtained only from 1923 to 1936 inclusive.

DEFINITION OF TERMS

1. Private crop reports. - Those issued by individuals or firms on or near the first of the month. The average of the private crop reports was determined by averaging together the reports of B. W. Snow, R. D. Cromwell, J. A. Taylor, Nat C. Murray, E. H. Miller, G. C. Bryant, H. C. Donovan and Paul C. Goodsen. Some of these men are no longer issuing crop reports, but they were all active at one time or another in the period covered.
2. Government crop reports. - Those issued by the United States Department of Agriculture on the eighth, ninth, or tenth of each month, excepting January and February.
3. Open interest. - The number of unfilled contracts for future delivery of wheat.

4. Volume of trading. - The number of bushels sold for future delivery. Volume of trading and sales are used interchangeably.
5. Preceding five-day period. - The five-days immediately preceding the issuance of the crop report of both the private and government reports.
6. Day of release. - The day on which the crop reports are released. Private reports are released on the first of the month and government reports are released the eighth, ninth or tenth.
7. Following five-day period. - Five days immediately following the release of the crop report.
8. Five-day trend of prices. - Trend of prices for five consecutive days either preceding or following the release of the crop report.
9. Five-day trend of open interest. - Trend of open interest for five consecutive days either preceding or following the release of the crop report.
10. Five-day trend of sales. - Trend of sales for five consecutive days, either preceding or following the release of the crop report.

11. Average crop estimate. - A forecast of production of wheat not varying more than 50 million bushels from the 1923-32 average of 823 million bushels for the United States.
12. Change in volume of trading. - Change in volume of trading from one day to next of 1 million bushels or more.
13. Change in open interest. - Change in open interest from one day to next of 100,000 bushels or more.
14. Change in price. - Change in price from one day to next of one-eighth of a cent or more.

METHOD OF ANALYSIS

General

This problem was studied from four viewpoints. In all cases distant future quotations were used as the basis for studying price reactions. Minor disturbances in the wheat market are less likely to have as much effect on the distant futures as on the current future. The use of the distant futures allows the effect of the crop estimate to be analyzed more fully. It seemed inadvisable to try to observe percentage change because changes in prices are

usually considered in terms of cents per bushel rather than a percentage change. Also it is impossible to extract the influence of the crop report alone. When one tries to measure the effect of the crop report, he also is measuring the other forces that are operating at that time. It is assumed, however, that the crop report is the most important factor. In trying to measure the effect of the crop report, the trend for the five-day period immediately following the release of the report was used. The averages of the private reports and the government report for the months of April to October inclusive for the years 1921-1936 inclusive, together with the final government report are found in Table 1.

The four methods of analysis used were:

- 1.. Trend of prices, volume of trading, and open interest after a report was issued in comparison to the size of the crop report.
2. Trend of prices, volume of trading and open interest for the five days following the release of a report, when the size of the forecast was compared to the size of the previous forecast.
3. Change in direction of trend of prices after the release of a report.

Table 1. Estimates of Private and Government Wheat Production. (8)

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(In Millions of Bushels)

Year	:	April	:	May	:	June	:	July	:	Aug	:	Sept	:	Oct	:	Final Government Estimate
1921	P ¹ :	652 ²	:	642	:	855 ³	:	815	:	761	:	758	:	761	:	
1921	G ⁴ :	621	:	628	:	829	:	809	:	751	:	754	:	741	:	815
1922	P :	573	:	575	:	815	:	825	:	805	:	843	:	843	:	
1922	G :	573	:	585	:	854	:	817	:	805	:	819	:	808	:	810
1923	P :	586	:	565	:	826	:	808	:	807	:	799	:	806	:	
1923	G :	572	:	578	:	817	:	821	:	793	:	789	:	781	:	863
1924	P :	556	:	560	:	735	:	727	:	797	:	815	:	839	:	
1924	G :	549	:	553	:	693	:	740	:	814	:	836	:	855	:	669
1925	P :	519	:	442	:	673	:	669	:	633	:	673	:	695	:	
1925	G :	474	:	445	:	651	:	680	:	679	:	700	:	698	:	666
1926	P :	572	:	565	:	781	:	770	:	826	:	834	:	827	:	
1926	G :	530	:	549	:	768	:	767	:	839	:	838	:	839	:	831
1927	P :	582	:	597	:	797	:	802	:	834	:	839	:	841	:	
1927	G :	568	:	594	:	772	:	853	:	851	:	861	:	867	:	871
1928	P :	534	:	472	:	776	:	770	:	856	:	883	:	886	:	
1928	G :	536	:	479	:	764	:	801	:	891	:	902	:	904	:	915
1929	P :	573	:	618	:	890	:	849	:	773	:	766	:	768	:	
1929	G :	575	:	595	:	872	:	775	:	724	:	785	:	792	:	801
1930	P :	574	:	543	:	802	:	810	:	811	:	819	:	823	:	
1930	G :	574	:	525	:	734	:	751	:	772	:	837	:	839	:	859
1931	P :	619	:	658	:	890	:	874	:	875	:	859	:	856	:	
1931	G :	644	:	652	:	829	:	837	:	870	:	886	:	884	:	900
1932	P :	500	:	463	:	680	:	697	:	716	:	701	:	704	:	
1932	G :	458	:	441	:	664	:	682	:	672	:	715	:	712	:	744
1933	P :	371	:	350	:	627	:	519	:	481	:	488	:	491	:	
1933	G :	334	:	337	:	606	:	478	:	482	:	488	:	497	:	527
1934	P :	506	:	486	:	546	:	516	:	484	:	488	:	485	:	
1934	G :	492	:	461	:	500	:	483	:	485	:	488	:	492	:	527
1935	P :	490	:	449	:	705	:	712	:	712	:	607	:	610	:	
1935	G :	435	:	432	:	676	:	694	:	694	:	599	:	603	:	626
1936	P :	538	:	495	:	736	:	663	:	634	:	633	:	630	:	
1936	G :	493	:	464	:	712	:	636	:	624	:	621	:	619	:	627

¹Private Crop Report²Winter Wheat³All Wheat⁴Government Crop Report

4. Trend of prices before and after a report was released.

Trend after the Release of a Report in
Comparison to Estimated Size of Crop

The purpose of this analysis was to try to determine if the estimated size of the crop had any effect on the price trend for the five days following the release of the report. In this study the price trend for the following five-day period was used, as well as the open interest and volume of trading for the same period. For the months of April and May the report for winter wheat was used. The average crop of winter wheat for the period 1923-1932, which was 623,000 million bushels, was used as a basis for comparing the size of the crop forecast. An estimate which did not deviate more than 50 million bushels from the average was considered to be an average estimate. If the estimate was more than 673 million bushels, the crop was considered larger than average, and if the estimate was less than 573 million bushels, the estimate was considered to indicate a smaller than average crop. From June to October, inclusive total wheat production was included in the report. The average crop of all wheat for 1923-1932 inclusive was 823 million bushels. The same

deviation was allowed as was used for the winter wheat crop.

For the period covered, there were 40 times when the private estimate was for an average crop. Of these 40 times the price for the following five days went up 14 times, down 20 times and remained steady six times. The government forecast was average 36 times. Of these 36 times the price went up 17 times, down 16 times and was steady three times. It might be assumed that if the crop estimate was normal, price would go up one-half of the time and down the other half. This analysis indicates that there is no definite trend for the five days following the release of the report.

The next step was to separate out the estimates in the forecast which were above average and observe the price trends after these reports had been issued. There were six times that the private forecasts were more than average. Of these six times the trend of prices for the following five-day period were upward three times and downward three times. The government forecast was larger than average six times and the trend for the following five-day period was upward four times, downward once and steady once. The expected trend after an estimate for a larger than average crop would be downward. In this

analysis the private forecast had no effect on the price trend and the government forecast showed a tendency for the price trend to move upward .

The last analysis in this series was to pick out the forecasts that were less than average. There were 65 such estimates. The price for the following five-day period went up 33 times, down 24 times and remained steady eight times. The trend here is slightly up. The government forecasts were less than average 69 times. The trend for the following five-day period was upward 29 times, downward 38 times and steady two times. The trend here is slightly in a downward direction. The trend of prices that one would expect to occur after a smaller than average forecast is upward. Taken as a whole the private forecasts that were less than average had a tendency to make prices go up after their release. The government forecasts which were smaller than average had a tendency to make prices go down. The results of this series of analysis is shown in Table 2.

The trend of the open interest in comparison to size of the forecast was next considered. This comparison covers the years 1923-1936 inclusive. There were 29 times the private forecast was for an average crop. The trend

Table 2. Trend of Prices Following the Release of the Report.

Trend		Five Day Trend of Price				
Estimate	:	Up	:	Down	:	Steady
Private Estimate was Average	:	:	:	:	:	:
40	:	14	:	20	:	6
Government Estimate was Average	:	:	:	:	:	:
36	:	17	:	16	:	3
Private Estimate was Larger than Average	:	:	:	:	:	:
6	:	3	:	3	:	0
Government Estimate was larger than Average	:	:	:	:	:	:
6	:	4	:	1	:	1
Private Estimate was Less than Average	:	:	:	:	:	:
65	:	33	:	24	:	8
Government Estimate was Less than Average	:	:	:	:	:	:
69	:	29	:	38	:	2

of the open interest for the following five-day period was upward 19 times, downward nine times and steady once. The government estimated an average crop 26 times, and the trend for the following five-day period was upward 14 times, downward 10 times, and was steady two times. The trend of the open interest seems to be upward when an average crop is forecast.

The next comparison was the times in which the forecast was for a larger than average crop. The private estimates were larger than average six times and the trend of the open interest for the following five day period was upward four times, downward once and steady once. The government estimated a larger than average crop six times. The trend of the open interest for the following five-day period was upward four times and downward two times. The trend of the open interest for the following five-day period after a forecast of a larger than average crop appears to be definitely upward.

The third comparison between open interest and size of the forecast was one in which the trend for the following five-day period after a forecast that is smaller than average was released. The private estimate was less than average 59 times. The trend of the open interest was upward 38 times, downward 17 times and steady 4 times for

the following five-day period. The government estimate was less than average 62 times. The trend for the following five-day period was upward 41 times, downward 16 times and remained steady five times. The trend of the open interest for the following five-day period after a smaller than average forecast is upward. The results of this analysis are found in Table 3.

The trend for the comparisons as a whole seem to indicate an increase in the open interest regardless of the size of the estimate. This is probably due to the fact that the distant future was used. If the active future had been used, the reverse might have been true.

The final analysis was a study of the size of the estimate and the trend of the volume of trading for the following five-day period. This analysis is similar to the one used in the study of price and open interest. The first comparison was between the size of the crop estimate and the trend of future sales for the following five-day period when the crop estimate was average. The private crop forecasts were average 40 times. The trend of future sales for the following five-day period was upward 21 times, downward 18 times and steady once. The government estimate was average 36 times and of these 36

Table 3. Trend of Open Interest Following the Release of Reports.

Size of Estimate	Five-day Trend of Open Interest		
	Upward	Downward	Steady
Private Estimate was Average			
29	19	9	1
Government Estimate was Average			
26	14	10	2
Private Estimate was Larger than Average			
6	4	1	1
Government Estimate was Larger than Average			
6	4	2	0
Private Estimate was Smaller than Average			
59	38	17	4
Government Estimate was Smaller than Average			
62	41	16	5

times the trend of sales for the following five-day period was upward 17 times, downward 18 times and steady once. The trend for the following five-day period after the release of both the private and government forecasts is neither up nor down.

The second comparison was one in which the crop estimates were larger than average, and the trend of future sales for the following five-day period. There were six private crop estimates that were larger than average. Of these six, the trend of sales for the following five-day period was upward twice and downward four times. The government estimates were larger than average six times and the trend of sales for the following five-day period was upward once, downward four times, and steady once. The trend of sales after a larger than average crop forecast is down.

The last comparison made between the size of the forecast and trend of future sales for the following five-day periods was one in which the crop estimates were less than average. The private estimate was smaller than average 65 times. Of these 65, the trend of sales for the following five-day period was upward 31 times, downward 32 times and steady two times. The government forecast was less than average 69 times. The trend of sales for

the following five days was upward 29 times and downward 40 times. From these observations it seems that the size of the crop forecast has no effect on the trend of sales for the following five-day period. The result of this analysis is found in Table 4.

Trend Following Release of Estimates Larger
or Smaller than the Previous Estimates

In this study the author has tried to determine if an increase or decrease in estimated production from one forecast to another has any effect on the trend for the five-day period following the release of the report. The method used in this analysis was to compare the government forecast issued on the eighth, ninth or tenth of the month to the private report issued on the first of the month, and to compare the private forecast with the previous months' government forecast. If there was a change from one estimate to the next of 25 million bushels or more, the trend for the five-day period following the release of the last estimate was observed. This comparison was made for price, open interest and sales.

The first analysis was made between changes in the size of the estimates and the trend of prices for the following five-day period. There were nine times that the

Table 4. Trend of Future Sales Following the Release of the Reports.

Trend Estimate	Five Day Trend of Future Sales			
	Upward	Downward	Steady	
Private Estimate was Average				
40	21	18		1
Government Estimate was Average				
36	17	18		1
Private Estimate was Larger than Average				
6	2	4		0
Government Estimate was Larger than Average				
6	1	4		1
Private Estimate was Smaller than Average				
65	31	32		2
Government Estimate was Smaller than Average				
69	29	40		0

government estimate was larger than the private forecast issued on the first of the month. The trend of prices for the five-day period following release of the government report was upward four times, downward three times and steady two times. This indicates that an estimate that is larger than the previous forecast does not influence the price trend.

The next comparison was one in which the government estimate was smaller than the private estimate. This situation occurred 31 times, and the trend for the following five-day period was upward 12 times, downward 17 times, and steady twice. If the last estimate was for a smaller crop, the expected trend in prices should be up. The analysis shows that there is no definite trend in either direction.

The third part of the comparison included changes in the size of estimates and price trend when the private estimates issued on the first of the month were smaller than the government forecast for the previous month. There were 12 times when this occurred and the trend of prices for the five-day period following the release of the private report was upward four times and downward eight times. This gives a definite trend downward, but one would expect the price trend to be upward, if the

estimate of production had been decreased.

The final comparison involving changes in estimates was one in which the private estimates were larger than the government forecasts. This was the case 25 times and the price trend for the following five-day period was upward twelve times and downward 13 times. The expected price trend after the estimated production was increased would be downward. This analysis shows no trend either upward or downward.

The results of this analysis seem to indicate that a change in size of a forecast has no effect on the trend of prices.

In only one comparison was there any definite trend and that was in the opposite direction from that which would usually be expected. From these observations, it can be said that change from one estimate to the next has no effect on the trend of prices for the five days following the last report. The results are given in Table 5.

The second major part of the study was a comparison between change in the size of the estimate and the trend in open interest. There were nine instances when the government estimate was larger than the private estimate. The trend of the open interest following the release of

Table 5. Trend of Prices Following the Release of Reports Classified according to Changes in Size of the Estimate.

Trend Estimate	Five Day Trend Prices			
	Upward	Downward	Steady	
Number of Times Gov- ernment Estimate was Larger than Private Estimate				
9	4	3	2	
Number of Times Gov- ernment Estimate was Smaller than the Pri- vate Estimate				
31	12	17	2	
Number of Times the Private Estimate was Larger than the Gov- ernment Estimate				
12	4	8	0	
Number of Times the Private Estimate was Smaller than the Gov- ernment Estimate				
25	12	13	0	

the government estimate was upward two times and downward seven times. Here the open interest trend for the five-day period following the crop report seems to follow the expected trend. With a larger production than was expected from the last report, there is a distinct trend for the open interest to decrease.

The next comparison was one in which the government estimate was less than the private estimate. This happened 25 times, and the open interest increased 21 times, decreased once and remained steady three times. There is a tendency for the open interest to increase if the government estimate is smaller than the private forecast.

The third comparison included cases in which the private estimate was larger than the preceding government forecast. This happened 22 times and the open interest increased 18 times, decreased twice and remained steady twice. This analysis indicates that an increase in the private estimate over the government estimate results in an increase in the open interest following the release of the private estimate.

The final comparison between changes in the crop estimate and the trend in open interest, included cases in which the private estimate was less than the government forecast. Of the 10 times this occurred, the open

interest trend for the following five-day period was upward three times, and downward seven times. This is opposite to the trend when the government forecast was less than the private estimate.

This study between open interest and changes in size of forecasts is an interesting one. When the government estimates were compared to the private forecasts an increase in the government estimate over the private estimate caused a decrease in the open interest and a decrease in the government estimate from the private forecast caused an increase in the open interest. However, when the private estimates were compared to the government estimate, the reverse was true. That is, an increase in the private forecast over the government forecast caused an increase in the open interest trend for the following five-day period after the release of the private report, and a decrease in the private forecast as compared to the previous months' government estimate caused a decrease in the open interest. The results of this observation are found in Table 6.

The last analysis to be made in this series was one which considered changes in the size of the estimate and the volume of future sales. This analysis was made in the same manner as the studies of open interest and

Table 6. Trend of Open Interest Following Changes in the Size of the Forecast.

Trend Report	Five-day Trend of Open Interest		
	Upward	Downward	Steady
Number of Times the Government Estimate was Larger than the Private Estimate 9	2	7	0
Number of Times the Government Estimate was Smaller than the Private Estimate 25	21	1	3
Number of Times the Private Estimate was Larger than the Gov- ernment Estimate 22	18	2	2
Number of Times the Private Estimate was Smaller than the Government Estimate 10	3	7	0

price. The first comparison included cases in which the government estimate was larger than the private forecast. This happened nine times, and the future sales for the five-day period following the release of the private estimate were increased three times, decreased five times and remained steady once. There was a slight tendency for sales to decrease.

The next comparison included cases in which the government estimate was smaller than the private estimate. This occurred 31 times. The trend of sales for five days following the release of the report was upward 16 times and downward 15 times. Here there is no definite trend.

The third comparison was one in which a government estimate was followed by a larger private estimate. This occurred 25 times. The trend of sales for the five-day period following the release of the private report was upward 14 times, downward 10 times, and remained steady once. There is a slight trend upward while the expected trend would be downward.

The last comparison to be made in this analysis was one in which the private estimate was less than the preceding government estimate. This was the case 12 times. The trend for five days following the release of the

private report was upward nine times and downward three times. These results are tabulated in Table 7.

The results of this analysis show that price, open interest and volume of trading are not effected to any great extent by a change in the size of a forecast.

Change in Direction of Price Trend Following the Release of a Report

The purpose of this study was to substantiate the results of the previous study. The results of the other studies seem to indicate that the crop estimate does not have any effect on the price trend for the five-day period following its release. This study was made to determine if the release of the crop forecast tended to change the price trend in any particular direction. There were 57 times the trend of prices was changed after the release of the private forecast. In 23 of these changes the trend of prices for the following five-day period was upward, 22 times it was downward, and steady 12 times. In the government report there were 65 times the trend of prices was changed. Of these 65 times, the trend following the report was upward 28 times, downward 30 times and steady 7 times. The results of this study seem to indicate that

Table 7. Trend of Future Sales Following
Changes in the Size of the Estimate.

Report	:	Upward	:	Downward	:	Steady
Number of Times the Government Estimate was Larger than the Private Estimate	:	:	:	:	:	:
9	:	3	:	5	:	1
Number of Times the Government Estimate was Smaller than the Private Estimate	:	:	:	:	:	:
31	:	16	:	15	:	0
Number of Times the Private Estimate was Larger than the Gov- ernment Estimate	:	:	:	:	:	:
12	:	9	:	3	:	0
Number of Times the Private Estimate was Smaller than the Gov- ernment Estimate	:	:	:	:	:	:
25	:	14	:	10	:	1

the release of a crop forecast does not change the trends of prices in any particular direction. The results are found in Table 8.

Possible Price Trends Before and After the Release of a Report

This study was made to determine if there were any predominating price trends. The results of the previous studies seem to indicate that there is no predominating price trend following the release of a crop forecast. The method of analysis was to observe the price trend for the five-day period before the release of a crop estimate and the five-day period following.

There are nine possible trends before and after the release of an estimate, as shown in Table 9. The trend of prices before the release of a private forecast was upward 51 times and downward 55 times. The trend of prices after the release of a private report were upward 47 times and downward 48 times. For the government estimates, the trend of prices was upward 55 times before the release of the estimate and downward 51 times. The trend of prices after the release of the government forecast was upward 51 times and downward 55 times. These results indicate that a crop estimate has no effect on the price

Table 8. Changes in Direction of Price Trend
Following the Release of Reports.

Trend	:	Upward	:	Downward	:	Steady
Number of Changes in	:	:	:	:	:	:
Direction of Trend of	:	:	:	:	:	:
Private Estimates	:	:	:	:	:	:
57	:	23	:	22	:	12
Number of Changes in	:	:	:	:	:	:
Trend of Government	:	:	:	:	:	:
Estimates	:	:	:	:	:	:
65	:	28	:	30	:	7

Table 9. Classification of Trend of Prices for the Five Days Preceding and the Five Days Following the Release of Crop Reports.

Trend of Price		:	↗	:	↗	:	↗	:	+	:	+	:	↘	:	↘	:	↘
Month		:		:		:		:		:		:		:		:	
April	P ¹	:	5	:	1	:	1	:	0	:	1	:	0	:	2	:	1
	G ²	:	7	:	0	:	3	:	0	:	0	:	1	:	1	:	3
May	P	:	4	:	2	:	4	:	0	:	0	:	0	:	3	:	1
	G	:	4	:	1	:	2	:	0	:	0	:	0	:	6	:	0
June	P	:	4	:	0	:	4	:	0	:	1	:	0	:	3	:	2
	G	:	0	:	1	:	6	:	1	:	0	:	0	:	4	:	0
July	P	:	2	:	0	:	6	:	1	:	0	:	0	:	2	:	1
	G	:	4	:	0	:	2	:	1	:	0	:	1	:	5	:	0
August	P	:	4	:	0	:	4	:	0	:	0	:	1	:	4	:	1
	G	:	1	:	1	:	5	:	0	:	0	:	1	:	4	:	0
September	P	:	3	:	0	:	1	:	0	:	0	:	0	:	7	:	1
	G	:	3	:	2	:	3	:	0	:	0	:	1	:	2	:	0
October	P	:	4	:	1	:	1	:	0	:	0	:	0	:	5	:	1
	G	:	4	:	1	:	5	:	0	:	0	:	0	:	3	:	0
Total		:	49	:	10	:	47	:	3	:	2	:	5	:	51	:	9

¹Private Crop Reports

²Government Crop Reports

trend either before or after its release.

FINAL SUMMARY AND CONCLUSIONS

1. The size of the private crop forecast does not seem to have an influence on the trend of prices for the following five-day period.

2. If the government crop estimate indicates a larger than average crop, the trend of prices for the following five-day period is likely to be upward.

3. If the government crop estimate is average or less than average it has no effect on the trend of prices for the following five-day period.

4. The trend of the open interest of the distant futures is upward for the five-day period following the release of both the private and government crop estimates.

5. The trend of the volume of trading for the following five-day period is not effected by the size of the crop estimate.

6. The size of the government estimate in comparison to the size of the private estimate has no effect on the trend of prices for the five-day period following the release of the government estimate.

7. If the private estimate is smaller than the

preceding government forecast, the trend of prices for the five-day period following the release of the private report tends to be upward.

8. If the government forecast is larger than the private forecast, the trend of the open interest the five-day period following the release of the government forecast, tends to be downward. If the government forecast is smaller, the trend of the open interest tends to be upward. However, if the private forecast is larger than the preceding government estimate, the trend of the open interest for the five-days following the release of the private report tends to be upward. If the private forecast is smaller than the government estimate, the trend of the open interest tends to be downward.

9. The trend of the volume of trading does not appear to be effected by changes in the size of the forecast.

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