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## Changes in Crop Prices before and after Releases of Statistics Canada's Field Crop Reporting Series Publications

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The following standard symbols are used in this publication:

.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0 <sup>s</sup>	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
P	preliminary
r	revised
x	suppressed to meet the confidentiality requirements of the <a href="#">Statistics Act</a>
E	use with caution
F	too unreliable to be published

## **Changes in Crop Prices before and after Releases of Statistics Canada's Field Crop Reporting Series Publications**

### **1.0 Introduction**

1.1 Statistics Canada administers six surveys per year to collect information on intended, seeded and harvested acreages, yields, production and stocks of principal field crops, and publishes these survey estimates in eight publications of the Field Crop Reporting Series (FCRS). Possible market reactions to these publications are sometimes a source of controversy among farm operators. In theory, improved market information is likely to increase markets efficiency by reducing transaction costs, thereby raising prices farmers receive for their crops (Hoffman, 1980). However, many farm operators are not convinced that the releases of crop reporting series produce the desirable market results. They often voice concerns that crop markets do not react efficiently to the information and argue that crop prices fall more often than they rise after publication of the estimates. Sometimes their concerns lead to complaints to the effect that the published estimates generally bring prices down.

1.2 In agricultural commodity markets, new information induces traders to re-evaluate their current expectations about future market conditions involving a variety of factors. These factors include, among others, global inventory of a commodity, global production, global supply and a country's contribution to the global supply. Identifying specific sources of price volatility in agricultural commodity markets is an important component in developing a marketing strategy for agribusiness firms. The publication of new information on the supply side can be one of many factors in price adjustments if the information is unanticipated or contrary to traders' previous expectations (Fama, 1970).

1.3 In an efficient market, price changes should reflect differences between market expectation of new information and the actual information upon release (Colling and Irwin, 1990). As market fundamentals are expected to be instrumental in determining prices, market participants are likely to respond to new information on supply and demand conditions. According to efficient market hypothesis, prices in an efficient market ought to reflect all known information available at a given time (Fama, 1970). When prices do not change or change slightly after the release of new information, there are reasons to believe that either the markets have accurately anticipated the information or the impact of the new information on the market is infinitesimal.

1.4 Canadian grain, oilseed and specialty crop prices react to a multitude of influences. These influences originate from a wide variety of sources and fall into general categories such as environmental, economic and political (Wilson, 2003). Most grains, oilseeds and specialty crops in Canada are grown in the Prairie provinces of Alberta, Saskatchewan, and Manitoba. Almost all of these grains and oilseeds are grown under dryland conditions with a very short growing season. Yields vary significantly with temperature and precipitation at critical stages of crop development, and therefore, production and domestic supply often remain uncertain. On the demand side, prices react to variations in demand owing to economic and demographic factors.

1.5 In recent decades, globalization, market pressures, technology and innovations have spurred Canadian agriculture to increase output and productivity. On the other hand, increased global production by efficient means has contributed to a long-term decline in real commodity prices. Various forms of subsidies especially in countries with larger shares of global production also place downward pressure on world prices. As Canada is an export-oriented nation and a price-taker in the international commodity markets, these global trends have a significant impact on Canadian prices.

## **2.0 Objectives**

2.1 Given the concerns often voiced by farm operators as survey respondents, the Agriculture Division of Statistics Canada has an interest in understanding the effect of its crop reports releases on Canadian crop prices. The primary objective of this study is to analyse short-term movements in weekly crop prices from the week before the releases of Statistics Canada's Field Crop Reporting Series to the week after the releases. The results will provide an opportunity to compare the statistics of crop price changes before the release dates with those after the release dates. The results will also provide a basis for further in-depth analysis of price movement patterns, if there is any.

## **3.0 Data and methods**

3.1 In this study, the effects of crop reporting series on prices of major grains, oilseeds and specialty crops are investigated. Specifically, price movements in the futures markets immediately before and after the release of crop reports are studied. The major grains studied are oats, barley and wheat, while oilseeds include canola and flaxseed. The specialty crops included in this study are large green lentils, small green lentils, medium green lentils, French green lentils, red lentils, brown mustard, yellow mustard, oriental mustard, sunflower, canary seed, desi chick peas, Kabuli chick peas, field green peas, field yellow peas and field peas.

3.2 Data on weekly commodity prices are obtained from Saskatchewan Agriculture and Food. The data period extends from 1990 through 2009 for major grain crops except oats (1993-2009) covering a total of 750 releases of the Field Crop Reporting Series. The data period for specialty crops is from 1992 to 2009, except for three specialty crops including red lentils, desi chick peas and Kabuli chick peas. The data period for these three specialty crops ranges from 1999 to 2009. For the specialty crops, the study period covers a total of 1,856 releases of the Field Crop Reporting Series.

3.3 Weekly prices of each crop on the week immediately before release, on the week of release and on the week immediately after release are tabulated. The changes in prices from the week before to the week of release (i.e., changes before the releases) and from the week of release to the week after (i.e., changes after the releases) are recorded as increases, decreases and no change. Price changes for each crop are then grouped by changes before the releases and changes after for comparison.

3.4 At the second stage, percentage changes in weekly prices from the week before to the week of release and from the week of release to the week after are analysed. Descriptive statistics of percent price changes are derived and the minimum, the maximum, the mean and the standard deviation of percent price changes before and after the releases are recorded for each crop. The upper and the lower limits of the 95% confidence interval for percentage changes in weekly prices before and after the releases are then estimated.

3.5 Finally, a chi-square test is conducted to check the probability that the observed frequencies of increases and decreases are equal. The chi-square test is performed to determine whether the null hypothesis as stated below is supported or rejected. The null hypothesis is that the price reactions are negative and positive in equal proportions of time. Therefore, the alternative hypothesis is that the distribution is not the same as stated in the null hypothesis. The null and alternative hypotheses are as follows:

$H_0$ : The price reactions are negative and positive in equal proportions of time.

$H_1$ : The distribution is not the same as stated in the null hypothesis.

## 4.0 Results and discussion

4.1 The empirical evidence suggests that Statistics Canada's Crop Reporting Series releases do not have any significant effect on prices of either specialty crops or major grains and oilseeds (Table 1 and 2). Changes in weekly prices from the week before release to the week after release have been studied for a total of 15 specialty crops. Table 1 illustrates the price changes for all specialty crops categorized as increases, decreases and unchanged. For specialty crops on average, from the week before to the week of release, prices remained unchanged in 52.3% of the times, increased in 25.4% and decreased in 22.3% of the times. Almost a similar pattern is observed between the week of release and the week after the release. Prices remained unchanged in 53.0% of the times after release, increased in 24.2% and decreased in 22.8% of the instances. Figures 1 through 20 (Appendix A) depict graphical comparison of weekly price changes before and after releases for each crop studied.

4.2 For major grains on average, percentages of increases and decreases between the week before and the week of releases were almost equal (49.5% vs. 48.8%; Table 2). Only in 1.7% cases, prices remained unchanged. Between the week of release and the week after release, the percentage of increases was noticeably higher than decreases. During the time, prices increased 52.7 % and decreased 46.1% of the times. This lends some support to the fact that prices tend to stick to their upper limits and adjust to a lower level only when the information is unanticipated or contrary to traders' previous expectations.

4.3 From Table 1 and 2, it can be concluded that changes in crop prices are as likely to increase as to decrease and price movements are not systematically associated with Statistics Canada's publications in the Field Crop Reporting Series. The results do not show any evidence that Field Crop Reporting Series publications have an exclusively negative bearing on market prices.

4.4 Table 3 and 4 show descriptive statistics for all major and specialty crops. It is apparent from Table 3 and 4 that mean percentage of price changes for both major grains and specialty crops are not significantly different from zero. On average, price changes after the publication of Crop Reporting Series are not significantly different than those before the publication. However, a closer look at the numbers for percentage changes reveals that from the week before to the week of release the mean percentage change was negative for 6 out of 15 specialty crops (Table 3). From the week of release to the week after, the number of negative means was reduced to 3 (Table 4). For major grains, the number of negative means reduced from 2 to 0. These results do not support the claim that prices fall consequent to releases in the Field Crop Reporting Series.

4.5 Table 5 and 6 show the observed and expected frequencies to be used in the chi-square distribution test. Observed frequencies are actual increases and decreases in prices, while the expected frequencies refer to the expected values when the increases and decreases are equal. Since there are two occurrences of price changes (increases and decreases) for each crop, the degree of freedom is 1. Thus, the critical value at the 95% confidence level is 3.84. The chi-square values for crops calculated from actual and expected frequencies have always been less than the critical value of 3.84, except the price changes of Field Yellow Peas from the week before to the week of release (Table 5) and Yellow Mustard from the week of release to the week after (Table 6). The chi-square values for the sum of the incidents of price increases and decreases after the Field Crop Reporting Series releases for major grains and specialty crops are also lower than the critical value (Table 5 and 6).

4.6 Since the chi-square values in general are lower than the critical value, there is not enough evidence to reject the null hypothesis that the price reactions are negative and positive in equal proportions of time (i.e., price reactions to the official releases of Field Crop Reporting Series publications tend to even out over the time). For specialty crops, however, the chi-square value for the sum of the instances of price increases and decreases before the releases is significant at the 10% level. This indicates that in cases of some specialty crops, price increases due to market factors (and perhaps due to expectations) before the releases. Another observation that supports this result is that for most crops, the ratio of positive and negative price changes before the releases does not vary significantly from that after the releases (Table 3 and 4).

## 5.0 Conclusion

5.1 This study evaluates the impact of public information relating to production on market prices of crops by analysing price changes before and after releases of Statistics Canada's Field Crops Reporting Series. As the results indicate, there is no evidence to support the claim that crop releases have a negative bearing on market prices. The results also suggest that mean price changes for both "week before to week of release" and "week of release to week after release" are not significantly different from zero. Furthermore, the interval estimates of the mean percentage of price changes are short and are approximately symmetric about zero. Chi-square tests conducted for all crops also exhibit that prices are as likely to increase as to decrease during the week after the releases of Statistics Canada's Field Crop Reporting Series.

5.2 Based on the above findings, it is concluded that official releases of Statistics Canada's Field Crops Reporting Series publications do not have any systematic impact on market prices of major grains, oilseeds and specialty crops.

## References

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**Table 1 Specialty crop price changes before and after Field Crop Reporting Series releases, 1992 to 2009**

Crops	Week Before to Week of Release			Week of Release to Week After		
	Number of times			Number of times		
	increased	decreased	unchanged	increased	decreased	unchanged
Large Green Lentils	45	46	47	41	42	55
Small Green Lentils	34	45	55	34	38	62
Medium Green Lentils	37	31	53	39	34	48
French Green Lentils	12	22	90	17	24	83
Red Lentils	38	29	20	38	29	20
Brown Mustard	23	15	101	19	16	104
Yellow Mustard	24	15	89	24	12	92
Oriental Mustard	20	19	100	23	20	96
Sunflower Seed	40	26	47	33	36	44
Canary Seed	43	45	52	53	44	43
Desi Chick Peas	20	21	46	21	13	53
Kabuli Chick Peas	27	24	36	18	25	44
Field Green Peas	38	26	75	36	36	67
Field Yellow Peas	47	25	68	26	32	82
Field Peas	24	24	92	28	22	90
<b>Total</b>	<b>472</b>	<b>413</b>	<b>971</b>	<b>450</b>	<b>423</b>	<b>983</b>
<b>Percent</b>	<b>25.4%</b>	<b>22.3%</b>	<b>52.3%</b>	<b>24.2%</b>	<b>22.8%</b>	<b>53.0%</b>

Source: Statistics Canada, authors' calculation



**Table 2 Major grains price changes before and after Field Crop Reporting Series releases, 1990 to 2009**

Crops	Week Before to Week of Release			Week of Release to Week After		
	Number of times			Number of times		
	increased	decreased	unchanged	increased	decreased	unchanged
Oats*	68	65	1	75	59	0
Canola	66	85	3	75	76	3
Flax	77	76	1	88	65	1
Barley	81	72	1	78	74	2
Feed Wheat	79	68	7	79	72	3
<b>Total</b>	<b>371</b>	<b>366</b>	<b>13</b>	<b>395</b>	<b>346</b>	<b>9</b>
<b>Percent</b>	<b>49.5%</b>	<b>48.8%</b>	<b>1.7%</b>	<b>52.7%</b>	<b>46.1%</b>	<b>1.2%</b>

\* Data for oats cover a period from 1993 to 2009.

**Source:** Statistics Canada, authors' calculation.

**Table 3 Descriptive statistics for percent change in price, week before to week of release, 1990 to 2009**

Crops	N	Minimum	Maximum	Mean	Standard Deviation	Confidence Interval (95%)	
						Lower	Upper
<b>Specialty Crops</b>							
Large Green Lentils	138	-0.12	0.19	0.0051	0.0378	-0.001	0.011
Small Green Lentils	134	-0.24	0.09	-0.0080	0.0397	-0.014	-0.011
Medium Green Lentils	121	-0.13	0.16	0.0049	0.0332	-0.001	0.011
French Green Lentils	124	-0.29	0.10	-0.0066	0.0416	-0.014	0.001
Red Lentils	87	-0.10	0.10	0.0028	0.0337	-0.004	0.010
Brown Mustard	139	-0.26	0.22	0.0012	0.0424	-0.006	0.008
Yellow Mustard	128	-0.09	0.36	0.0092	0.0469	-0.001	0.017
Oriental Mustard	139	-0.21	0.27	-0.0006	0.0389	-0.007	0.005
Sunflower Seed	113	-0.27	0.42	0.0061	0.0663	-0.006	0.084
Canary Seed	140	-0.11	0.20	-0.0026	0.0362	-0.009	0.003
Desi Chick Peas	87	-0.10	0.06	-0.0005	0.0251	-0.006	0.004
Kabuli Chick Peas	87	-0.13	0.17	0.0023	0.0385	-0.006	0.010
Field Green Peas	139	-0.36	0.14	0.0015	0.0444	-0.006	0.009
Field Yellow Peas	140	-0.36	0.20	0.0036	0.0468	-0.004	0.011
Field Peas	140	-0.25	0.09	-0.0015	0.0364	-0.007	0.004
<b>Major Grains/Oilseeds</b>							
Grain Oats	134	-0.13	0.27	0.0062	0.0534	-0.003	0.015
Canola	154	-0.18	0.08	-0.0024	0.0296	-0.007	0.002
Flax Seed	154	-0.13	0.17	-0.0013	0.0397	-0.007	0.005
Barley	154	-0.10	0.14	0.0028	0.0359	-0.003	0.008
Feed Wheat	154	-0.19	0.13	0.0000	0.0430	-0.007	0.007

**Source:** Statistics Canada, authors' calculation.

**Table 4 Descriptive statistics for percent change in price, week of release to week after, 1990 to 2009**

Crops	N	Minimum	Maximum	Mean	Standard Deviation	Confidence Interval (95%)	
						Lower	Upper
<b>Specialty Crops</b>							
Large Green Lentils	138	-0.22	0.23	0.0044	0.0481	-0.003	0.012
Small Green Lentils	134	-0.16	0.10	-0.0042	0.0309	-0.009	0.001
Medium Green Lentils	121	-0.18	0.22	0.0068	0.0453	-0.001	0.015
French Green Lentils	124	-0.24	0.46	0.0021	0.0632	-0.009	0.013
Red Lentils	87	-0.12	0.32	0.0081	0.0563	-0.004	0.020
Brown Mustard	139	-0.17	0.13	0.0009	0.0319	-0.004	0.006
Yellow Mustard	128	-0.17	0.70	0.0127	0.0788	-0.001	0.026
Oriental Mustard	139	-0.12	0.36	0.0075	0.0555	-0.002	0.017
Sunflower Seed	113	-0.39	0.34	-0.0040	0.0616	-0.015	0.007
Canary Seed	140	-0.20	0.38	0.0045	0.0632	-0.006	0.014
Desi Chick Peas	87	-0.11	0.15	0.0035	0.0307	-0.002	0.015
Kabuli Chick Peas	87	-0.14	0.25	0.0064	0.0496	-0.005	0.012
Field Green Peas	139	-0.11	0.57	0.0059	0.0581	-0.003	0.016
Field Yellow Peas	140	-0.21	0.62	0.0037	0.0643	-0.007	0.014
Field Peas	140	-0.45	0.28	-0.0040	0.0580	-0.014	0.006
<b>Major Grains/Oilseeds</b>							
Grain Oats	134	-0.25	0.19	0.0048	0.0582	-0.005	0.015
Canola	154	-0.14	0.11	0.0006	0.0303	-0.004	0.005
Flax	154	-0.24	0.16	0.0023	0.0466	-0.005	0.010
Barley	154	-0.08	0.11	0.0018	0.0383	-0.004	0.007
Feed Wheat	154	-0.12	0.17	0.0031	0.0426	-0.003	0.010

**Source:** Statistics Canada, authors' calculation.

**Table 5 Chi-square test results to compare increases and decreases (week before to week of release), 1990 to 2009**

Crops	Observed		Expected		Test results	
	Number of increases	Number of decreases	Number of increases	Number of decreases	$\chi^2$	Inference
<b>Specialty Crops</b>						
Large Green Lentils	45	46	45.5	45.5	0.01	H <sub>0</sub> accepted
Small Green Lentils	34	45	39.5	39.5	1.53	H <sub>0</sub> accepted
Medium green Lentils	37	31	34	34	0.53	H <sub>0</sub> accepted
French Green Lentils	12	22	17	17	2.94	H <sub>0</sub> accepted
Red Lentils	38	29	33.5	33.5	1.21	H <sub>0</sub> accepted
Brown Mustard	23	15	19	19	1.68	H <sub>0</sub> accepted
Yellow Mustard	24	15	19.5	19.5	2.08	H <sub>0</sub> accepted
Oriental Mustard	20	19	19.5	19.5	0.03	H <sub>0</sub> accepted
Sunflower Seed	40	26	33	33	2.97	H <sub>0</sub> accepted
Canary Seed	43	45	44	44	0.05	H <sub>0</sub> accepted
Desi Chick	20	21	20.5	20.5	0.02	H <sub>0</sub> accepted
Kabuli Chick	27	24	25.5	25.5	0.18	H <sub>0</sub> accepted
Field Green Peas	38	26	32	32	2.25	H <sub>0</sub> accepted
Field Yellow Peas	47	25	36	36	6.72	H <sub>1</sub> accepted
Field Peas	24	24	24	24	0.00	H <sub>0</sub> accepted
<b>Total</b>	<b>471</b>	<b>413</b>	<b>442</b>	<b>442</b>	<b>3.81</b>	<b>H<sub>0</sub> accepted</b>
<b>Major Grains</b>						
Oats	68	65	66.5	66.5	0.07	H <sub>0</sub> accepted
Canola	66	85	75.5	75.5	2.39	H <sub>0</sub> accepted
Flax:	77	76	76.5	76.5	0.01	H <sub>0</sub> accepted
Barley	81	72	76.5	76.5	0.53	H <sub>0</sub> accepted
Feed Wheat	79	68	73	73	0.82	H <sub>0</sub> accepted
<b>Total</b>	<b>371</b>	<b>366</b>	<b>368.5</b>	<b>368.5</b>	<b>0.03</b>	<b>H<sub>0</sub> accepted</b>

Chi-square test at  $\alpha=0.05$

H<sub>0</sub>: The price reactions are negative, and positive an equal number of times

H<sub>1</sub>: The distribution is not the same as stated in the null hypothesis

**Source:** Statistics Canada, authors' calculation.

**Table 6 Chi-square test results to compare increases and decreases (week of release to week after), 1990 to 2009**

Crops	Observed		Expected		Test results	
	Number of increases	Number of decreases	Number of increases	Number of decreases	$\chi^2$	Inference
<b>Specialty</b>						
Large Green Lentils	41	42	41.5	41.5	0.01	H <sub>0</sub> accepted
Small Green Lentils	34	38	36	36	0.22	H <sub>0</sub> accepted
Medium green Lentils	39	34	36.5	36.5	0.34	H <sub>0</sub> accepted
French Green Lentils	17	24	20.5	20.5	1.20	H <sub>0</sub> accepted
Red Lentils	38	29	33.5	33.5	1.21	H <sub>0</sub> accepted
Brown Mustard	19	16	17.5	17.5	0.26	H <sub>0</sub> accepted
Yellow Mustard	24	12	18	18	4.00	H <sub>1</sub> accepted
Oriental Mustard	23	20	21.5	21.5	0.21	H <sub>0</sub> accepted
Sunflower Seed	33	36	34.5	34.5	0.13	H <sub>0</sub> accepted
Canary Seed	53	44	48.5	48.5	0.84	H <sub>0</sub> accepted
Desi Chick	21	13	17	17	1.88	H <sub>0</sub> accepted
Kabuli Chick	18	25	21.5	21.5	1.14	H <sub>0</sub> accepted
Field Green Peas	36	36	36	36	0.00	H <sub>0</sub> accepted
Field Yellow Peas	26	32	29	29	0.62	H <sub>0</sub> accepted
Field Peas	28	22	25	25	0.72	H <sub>0</sub> accepted
<b>Total</b>	<b>450</b>	<b>422</b>	<b>436</b>	<b>436</b>	<b>0.90</b>	<b>H<sub>0</sub> accepted</b>
<b>Major Grains</b>						
Oats	75	59	67	67	1.91	H <sub>0</sub> accepted
Canola	75	76	75.5	75.5	0.01	H <sub>0</sub> accepted
Flax	88	65	76	76	3.46	H <sub>0</sub> accepted
Barley	78	74	76.5	76.5	0.11	H <sub>0</sub> accepted
Feed Wheat	79	72	75.5	75.5	0.32	H <sub>0</sub> accepted
<b>Total</b>	<b>395</b>	<b>346</b>	<b>370.5</b>	<b>370.5</b>	<b>3.24</b>	<b>H<sub>0</sub> accepted</b>

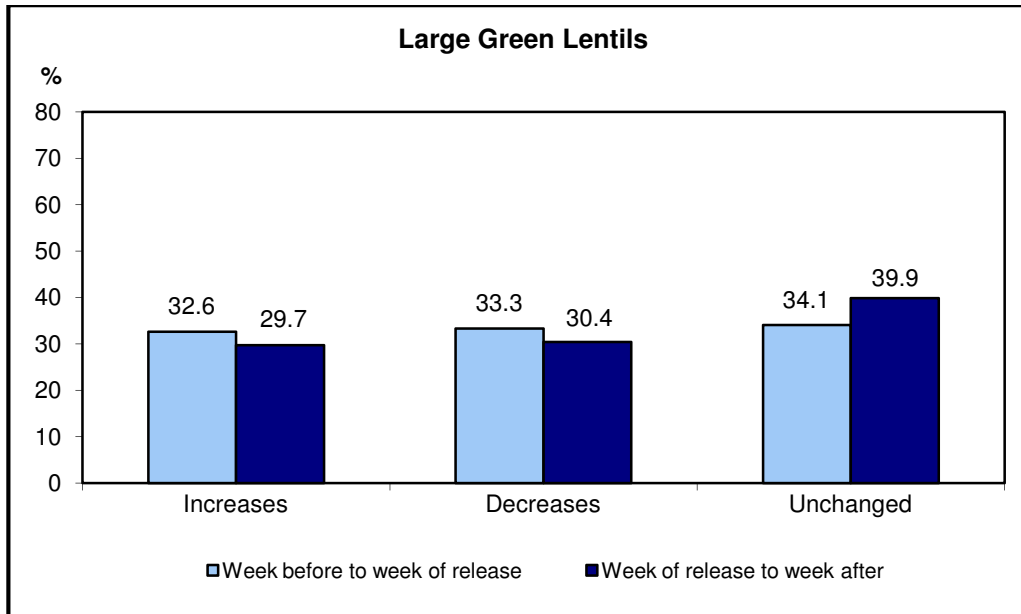
Chi-square test at  $\alpha=0.05$

H<sub>0</sub>: The price reactions are negative, and positive an equal number of times

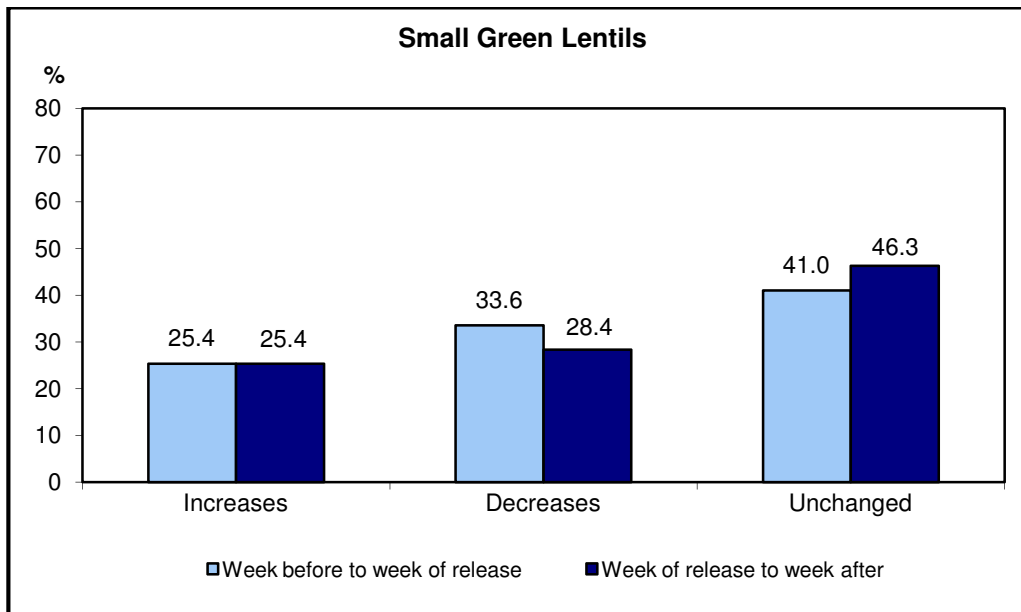
H<sub>1</sub>: The distribution is not the same as stated in the null hypothesis

**Source:** Statistics Canada, authors' calculation.

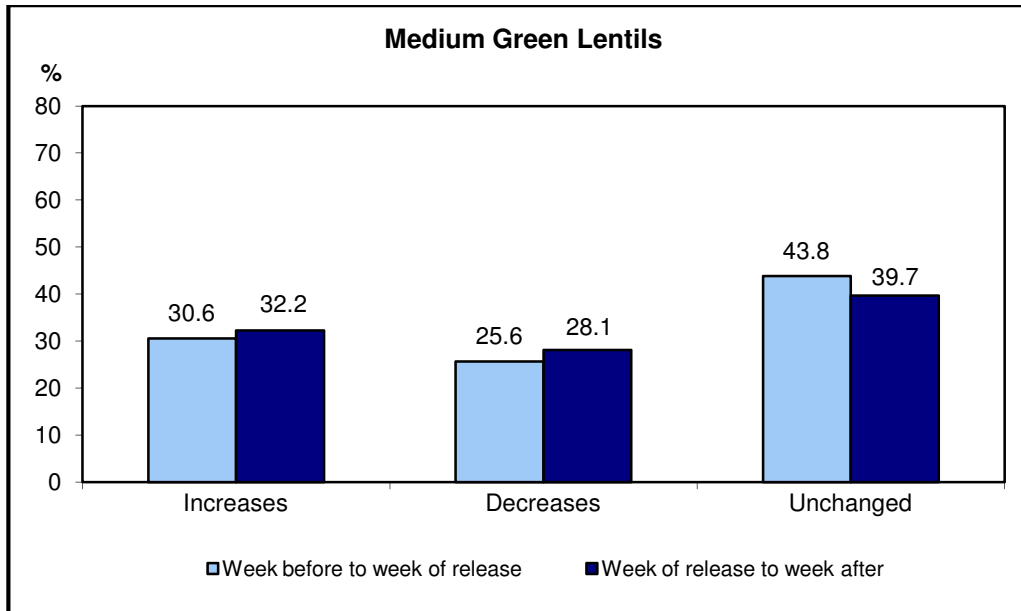
**Figure 1 Price changes before and after releases of Field Crop Reporting Series publications, Large Green Lentils, 1992 to 2009**



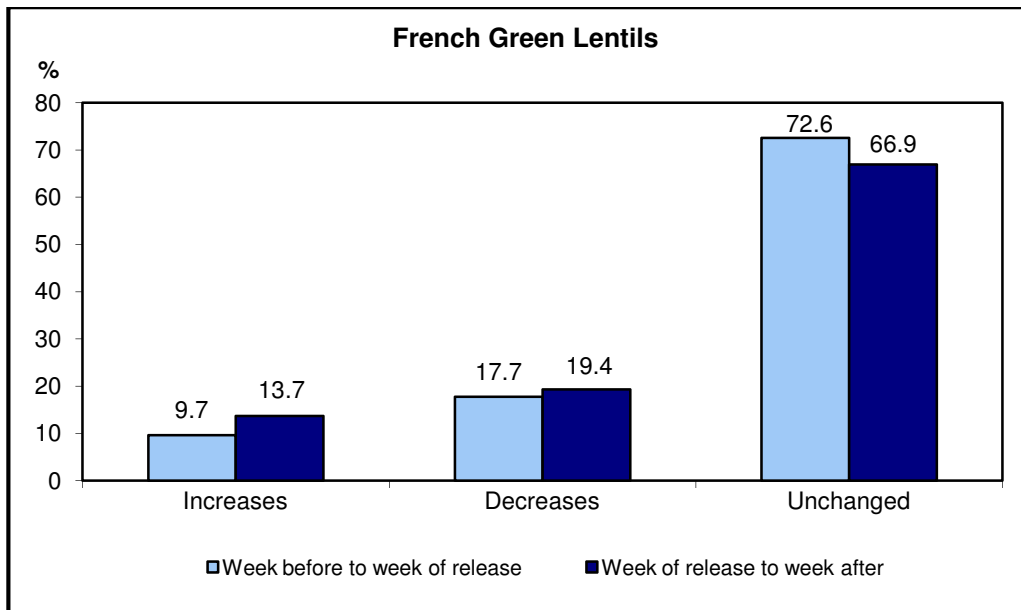
**Figure 2 Price changes before and after releases of Field Crop Reporting Series publications, Small Green Lentils, 1992 to 2009**



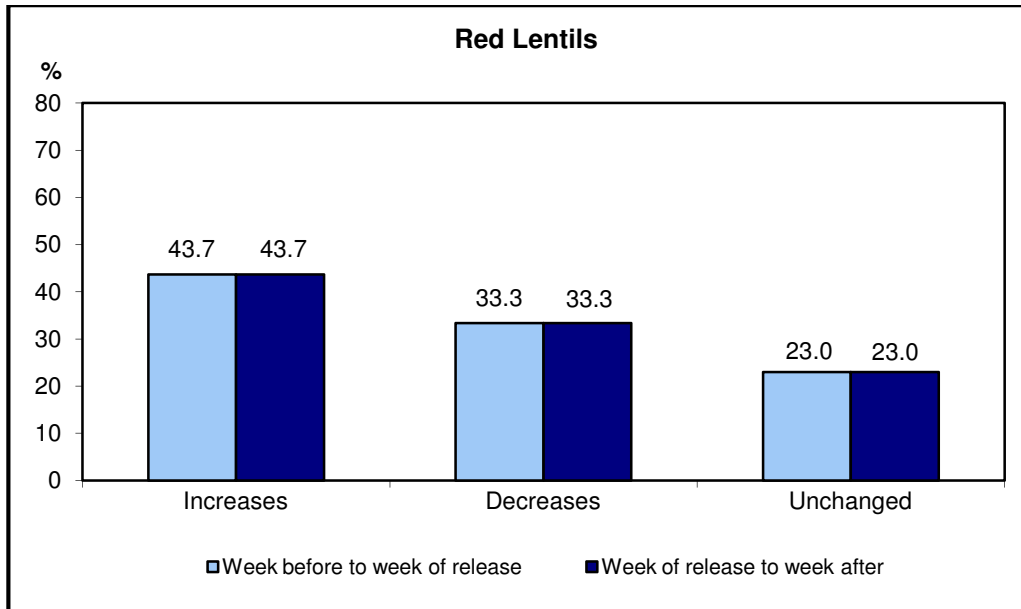
**Figure 3 Price changes before and after releases of Field Crop Reporting Series publications, Medium Green Lentils, 1992 to 2009**



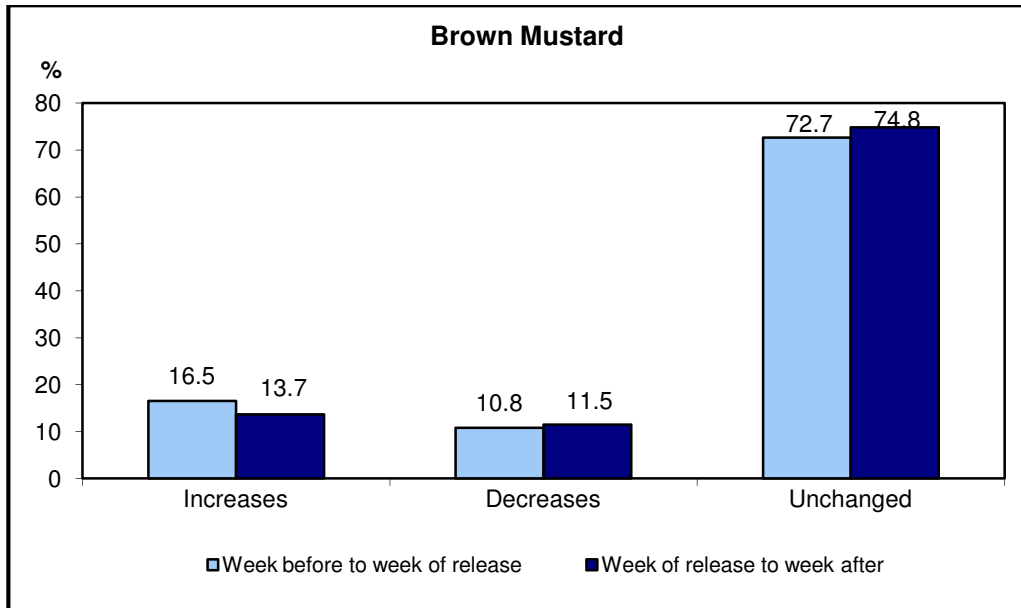
**Figure 4 Price changes before and after releases of Field Crop Reporting Series publications, French Green Lentils, 1992 to 2009**



**Figure 5 Price changes before and after releases of Field Crop Reporting Series publications, Red Lentils, 1999 to 2009**

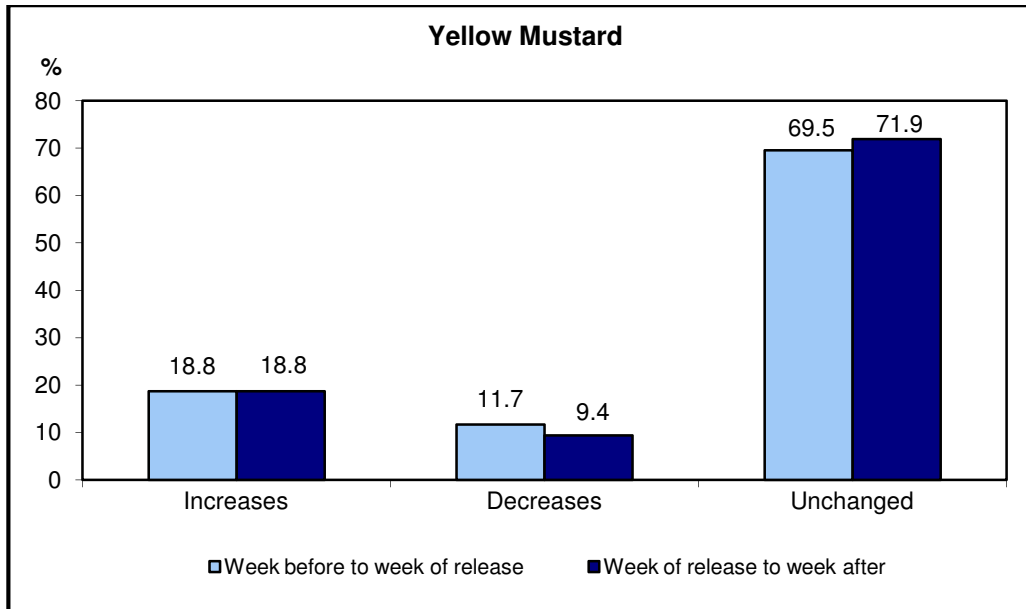


**Figure 6 Price changes before and after releases of Field Crop Reporting Series publications, Brown Mustard, 1992 to 2009**

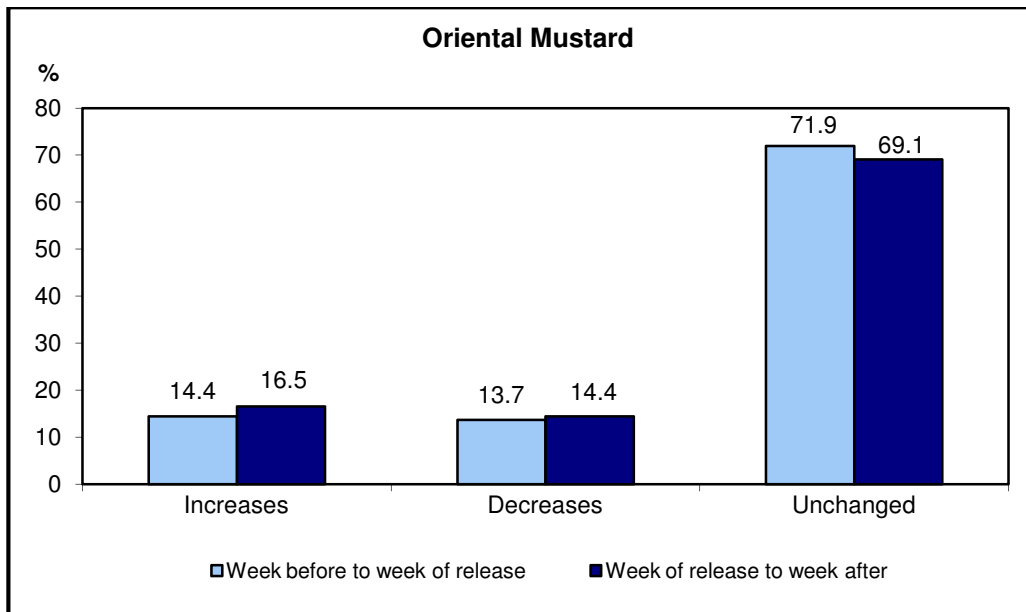




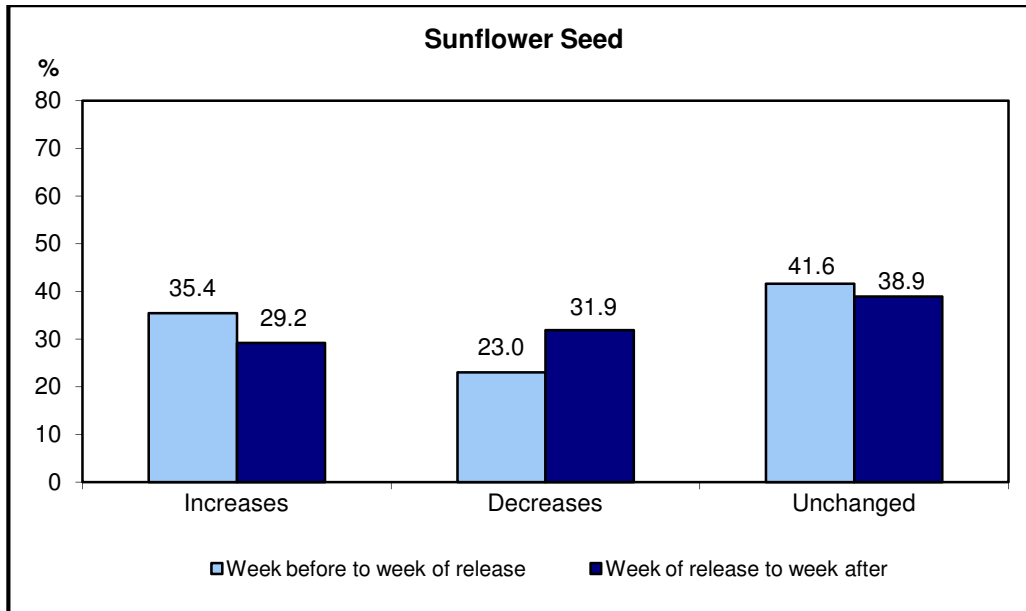
**Figure 7 Price changes before and after releases of Field Crop Reporting Series publications, Yellow Mustard, 1992 to 2009**



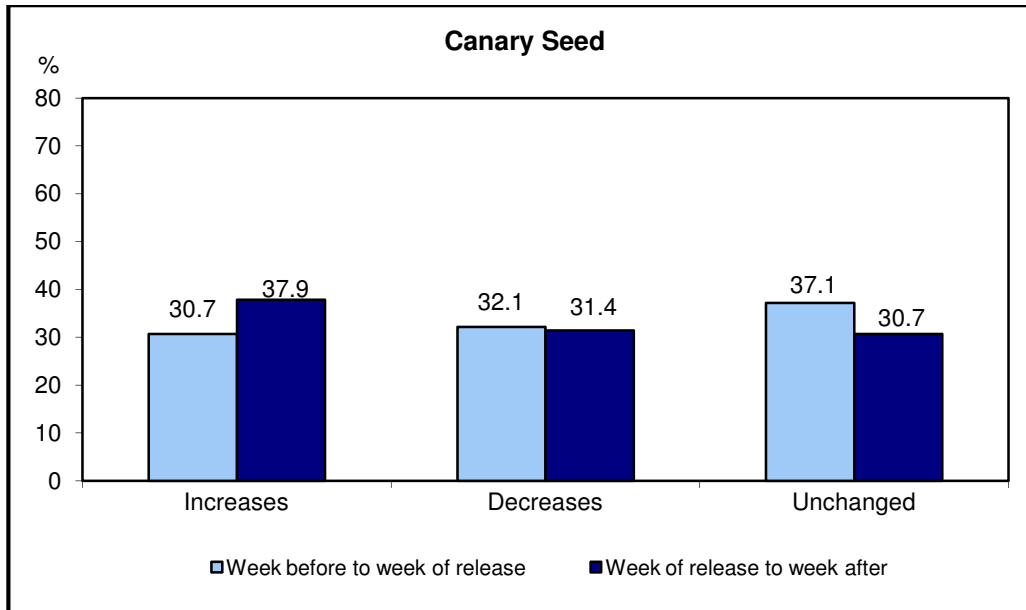
**Figure 8 Price changes before and after releases of Field Crop Reporting Series publications, Oriental Mustard, 1992 to 2009**



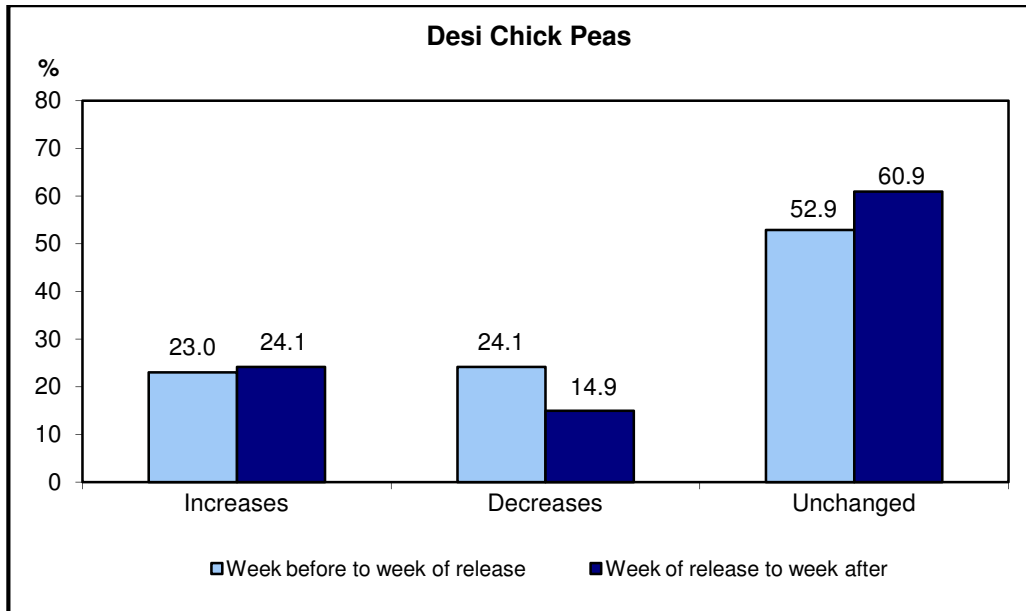
**Figure 9 Price changes before and after releases of Field Crop Reporting Series publications, Sunflower Seed, 1992 to 2009**



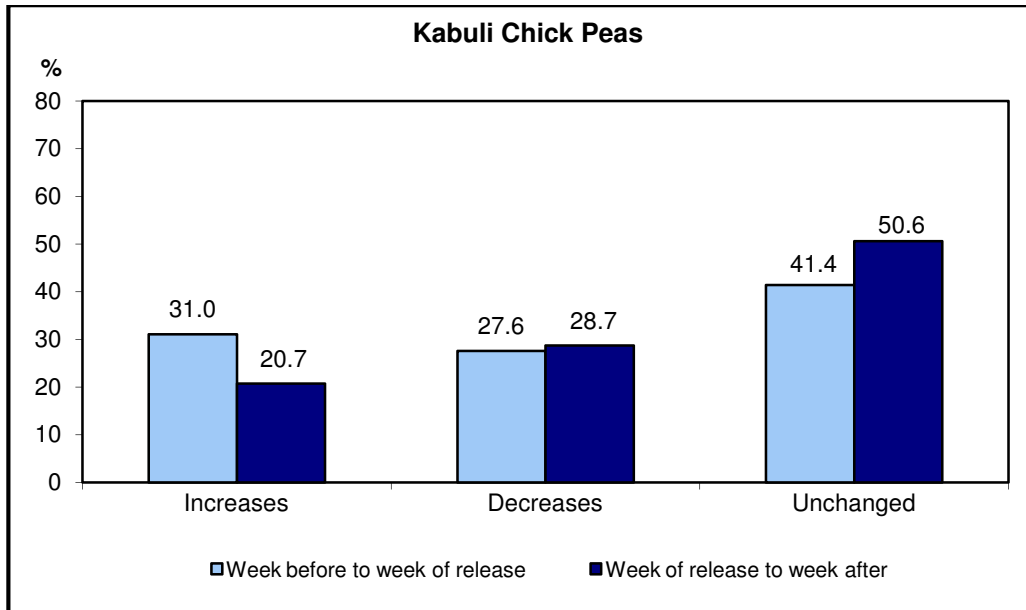
**Figure 10 Price changes before and after releases of Field Crop Reporting Series publications, Canary Seed, 1992 to 2009**



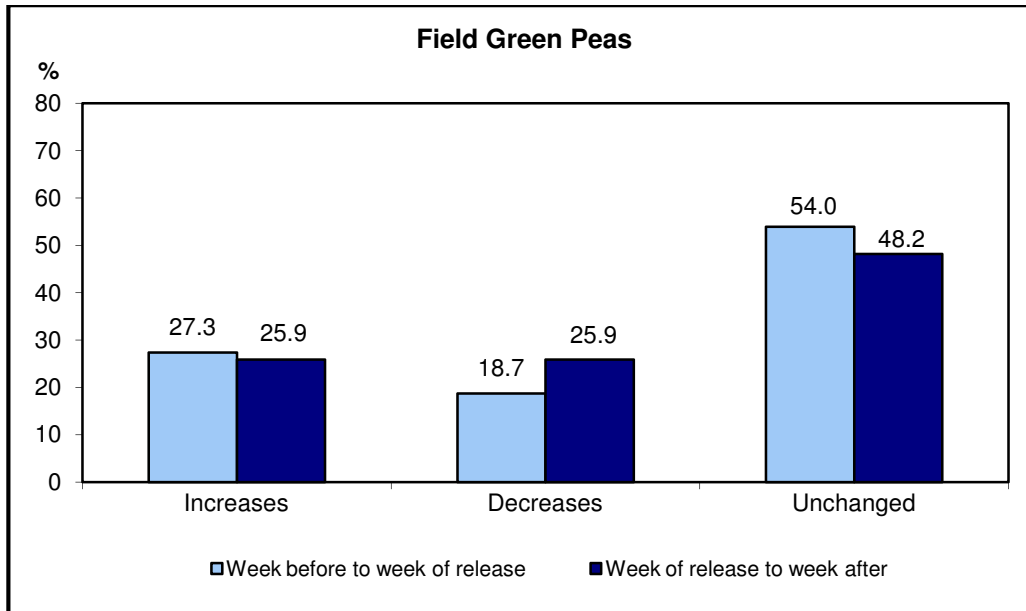
**Figure 11 Price changes before and after releases of Field Crop Reporting Series publications, Desi Chick Peas, 1999 to 2009**



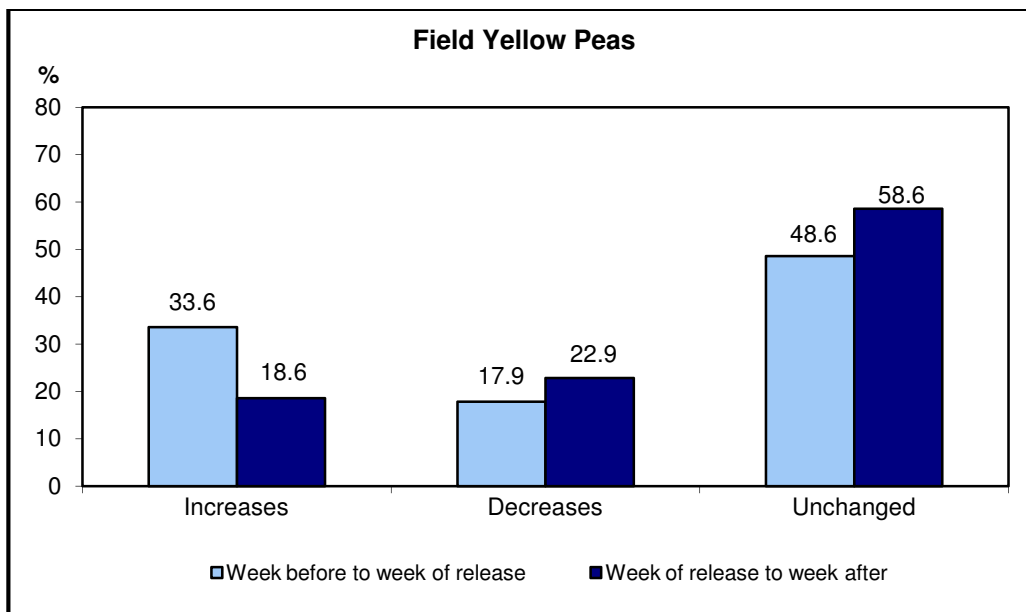
**Figure 12 Price changes before and after releases of Field Crop Reporting Series publications, Kabuli Chick Peas, 1999 to 2009**



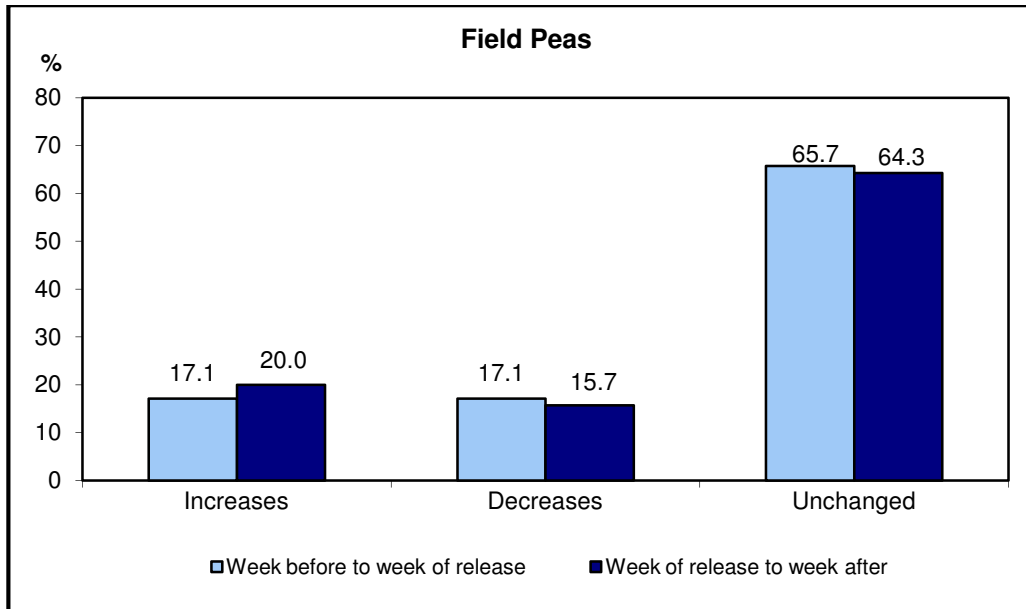
**Figure 13 Price changes before and after releases of Field Crop Reporting Series publications, Field Green Peas, 1992 to 2009**



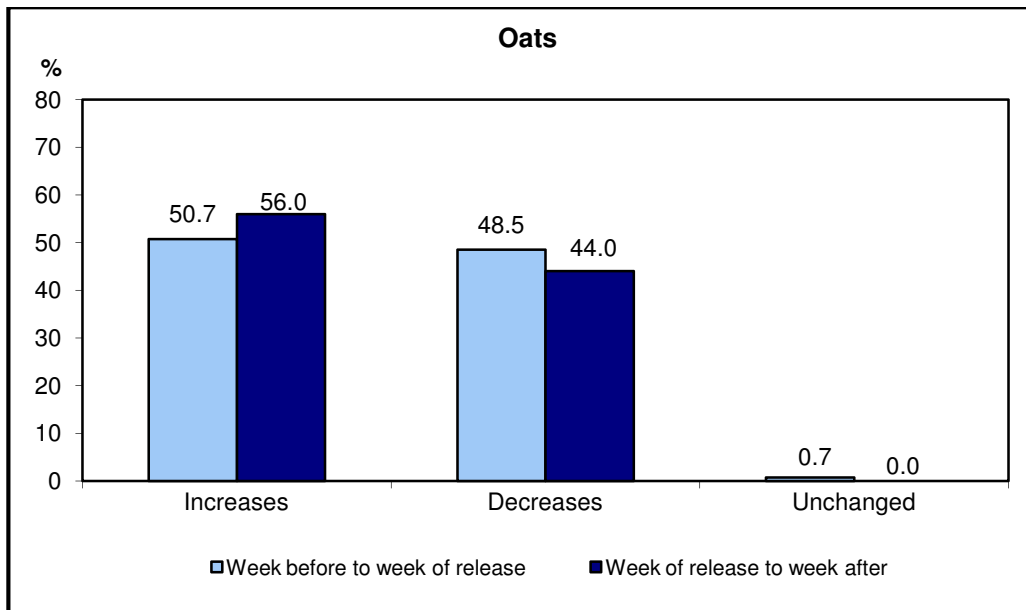
**Figure 14 Price changes before and after releases of Field Crop Reporting Series publications, Field Yellow Peas, 1992 to 2009**



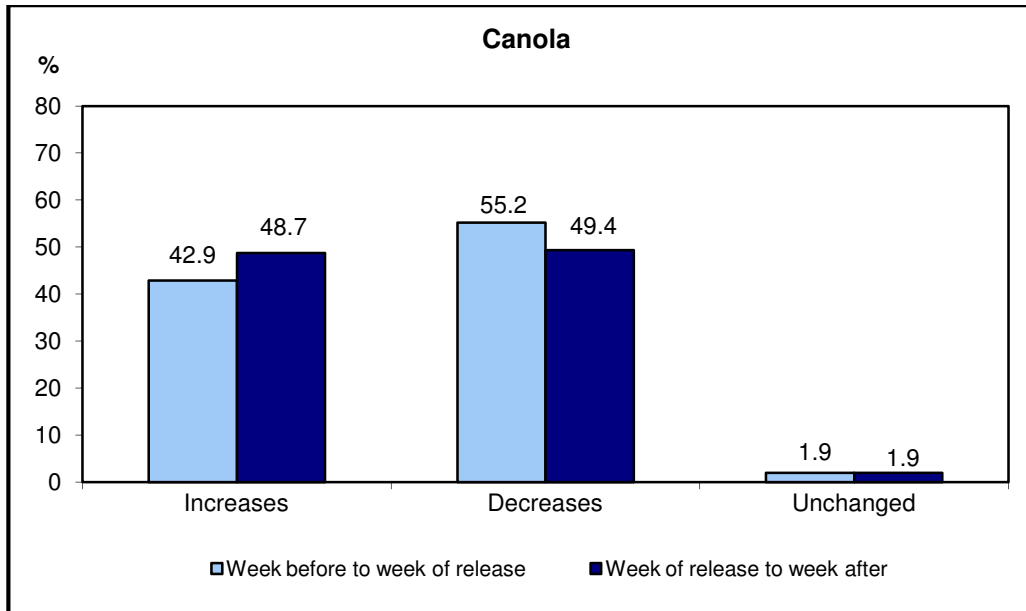
**Figure 15 Price changes before and after releases of Field Crop Reporting Series publications, Field Peas, 1992 to 2009**



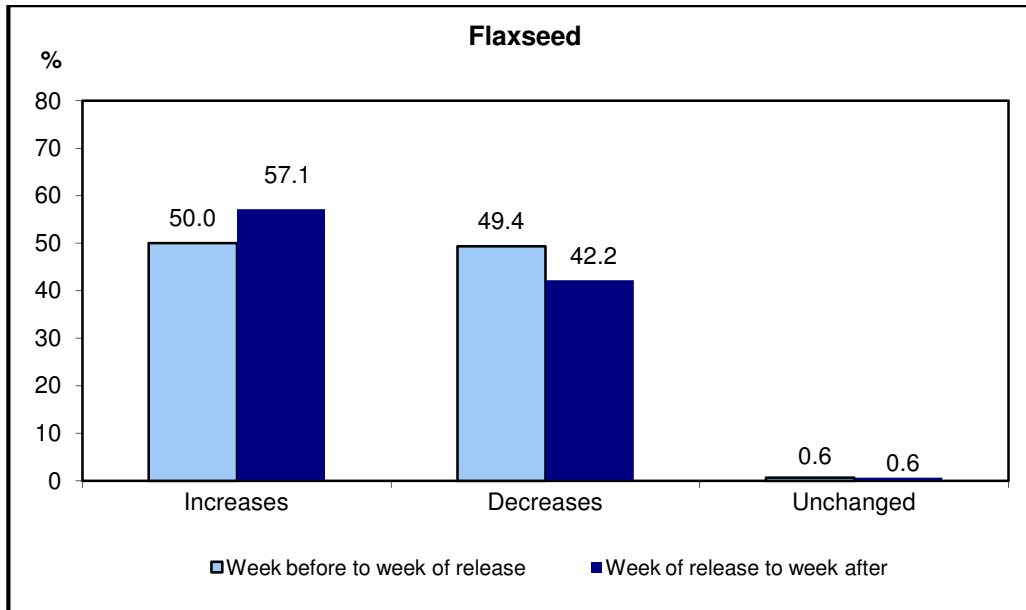
**Figure 16 Price changes before and after releases of Field Crop Reporting Series publications, Oats, 1993 to 2009**



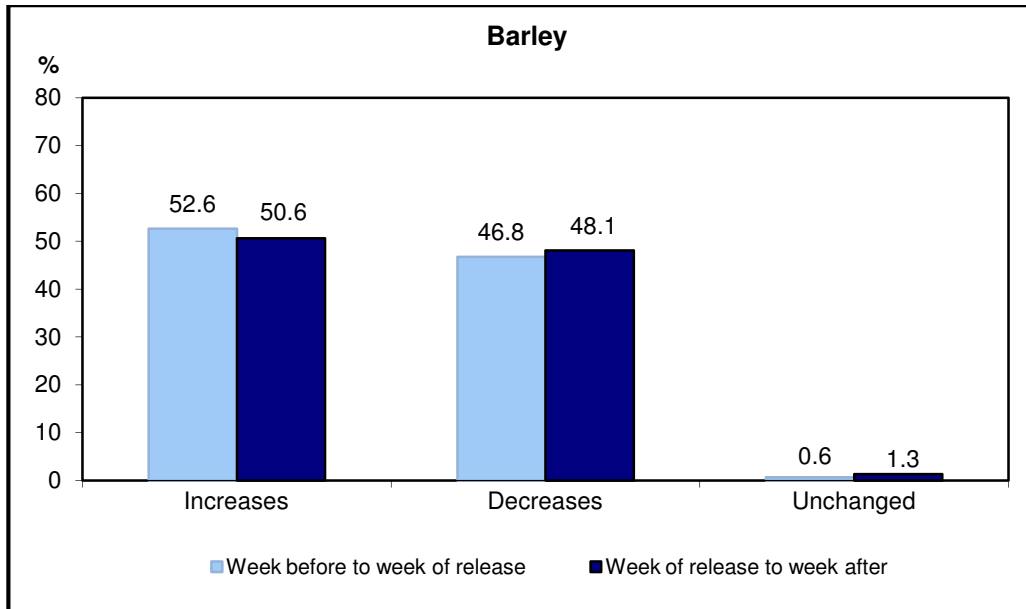
**Figure 17 Price changes before and after releases of Field Crop Reporting Series publications, Canola, 1990 to 2009**



**Figure 18 Price changes before and after releases of Field Crop Reporting Series publications, Flaxseed, 1990 to 2009**



**Figure 19 Price changes before and after releases of Field Crop Reporting Series publications, Barley, 1990 to 2009**



**Figure 20 Price changes before and after releases of Field Crop Reporting Series publications, Field Wheat, 1990 to 2009**

