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EC97-825 Pinto and Great Northern Bean Prices: Historical Trends and Seasonal Patterns

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Pinto and Great Northern Bean Prices: Historical Trends and Seasonal Patterns

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Pinto and Great Northern Bean Prices: Historical Trends and Seasonal Patterns

Introduction

Dry edible beans, while not a major crop nationally, are an important crop in the Nebraska Panhandle and scattered regions in Colorado, California, Idaho, Michigan, North Dakota, and Wyoming. Lacking widespread cultivation and national prominence as a cash crop, edible bean prices receive little national attention. No futures market and limited price outlook information exists for dry edible beans in any region. As a result, the need arises for basic price analysis, such as the long-term bean price trends, the amount of variability in bean prices, and the predictability and the degree of seasonal price patterns. Price information for these regional markets is critical for growers to plan for future production, to evaluate contract offers, to analyze storage options, and to decide time of sales.

Pinto is the major variety of dry edible beans grown in the United States, with about 20 percent of the total production occurring in Western Nebraska-Eastern Wyoming. The same area is the major crop region for Great Northern variety accounting for approximately 80 to 85 percent of the total production in the United States. Our goal is to provide a basic price analysis for Pinto and Great Northern beans, and to show what happened in their prices over time. Price analysis will focus on the Western-Nebraska-Eastern Wyoming market where Pinto and Great Northern varieties dominate. Pinto bean prices also will be compared against other major markets of Colorado, Idaho, and North Dakota. Data for thirteen crop years, 1983-1984 through 1995-1996, are used in the analysis. The crop year is defined as beginning in the harvest month for new crops (September) and ending before the next year's new crops appears (August).

Data Description

The prices reported in this article are grower prices, recorded by the United States Department of Agriculture, Livestock and Seed Division (USDA, 1983-1996). The prices are also the average reported sales for the week, however the number of sales and the volume of the transaction are not recorded. In other words, a price one week may be representative of a large number of sales and the next week's price may be representative of only a few sales. In some cases, if there were no sales, or if there were too few sales to adequately establish a market price, then no price is reported for that time period. Prices are recorded weekly for several major markets, including western Nebraska-eastern Wyoming, Colorado, North Dakota, and Idaho. The weekly prices are averaged to obtain monthly prices for each market. Monthly prices for western Nebraska-eastern Wyoming for Pinto and Great Northern beans are shown in Appendix *Tables A1* and *A2*.

Pinto and Great Northern Grower Prices

The first step in price analysis is to calculate some simple statistics to help identify the price series. The mean, standard deviation, and the range in prices for each year and month are calculated for the 13 crop years (*Table A1* and *Table A2*). Mean is the average price, while range is represented by the highest and the lowest prices. Standard deviation is a measure of dispersion or variation about the average: Normally two out of three years a monthly price would be expected to be within one standard deviation of the average price. For example, the mean or average price for Pintos is $17.18 per cwt. in September over 13 crop years *(Table A1)* and the standard deviation is $3.43 *(Table A1)*. Therefore, in two out of three years, one would expect pinto prices in September to be between $13.75 and $20.61 per cwt over the period of 13 crop years.

Great Northern beans brought the Nebraska-Wyoming farmers slightly higher prices with substantially less variation in prices compared to Pintos (*Table A1* and *Table A2*). The overall mean price of Pintos over thirteen crop years was $19.75 per cwt. as compared to Northern at $19.93 per cwt. The standard deviation for Pintos was $6.58 as compared to Northern with a standard deviation of $4.65 over 13 crop years. Despite the higher average prices for Northern, Northern prices were less volatile as measured by standard deviation. Not only do Pintos have a larger standard deviation, the range of Pinto prices also was greater than Northern in general. The highest price was recorded for Pintos in June of 1990 at $40 per cwt, and the lowest recorded price was close to $11 per cwt in January of 1988 (*Table A1* and *Table A2*).

A plot of actual monthly grower prices over the thirteen year period is shown in *Figure 1*. For extended periods, Pinto and Northern prices are nearly equal (e.g. from September 1983 to May 1988, and from January 1991 to January 1993). Then for other time periods, substantial and sustained price gaps develop between the two bean varieties. Until the summer of 1988 prices for the two varieties tracked

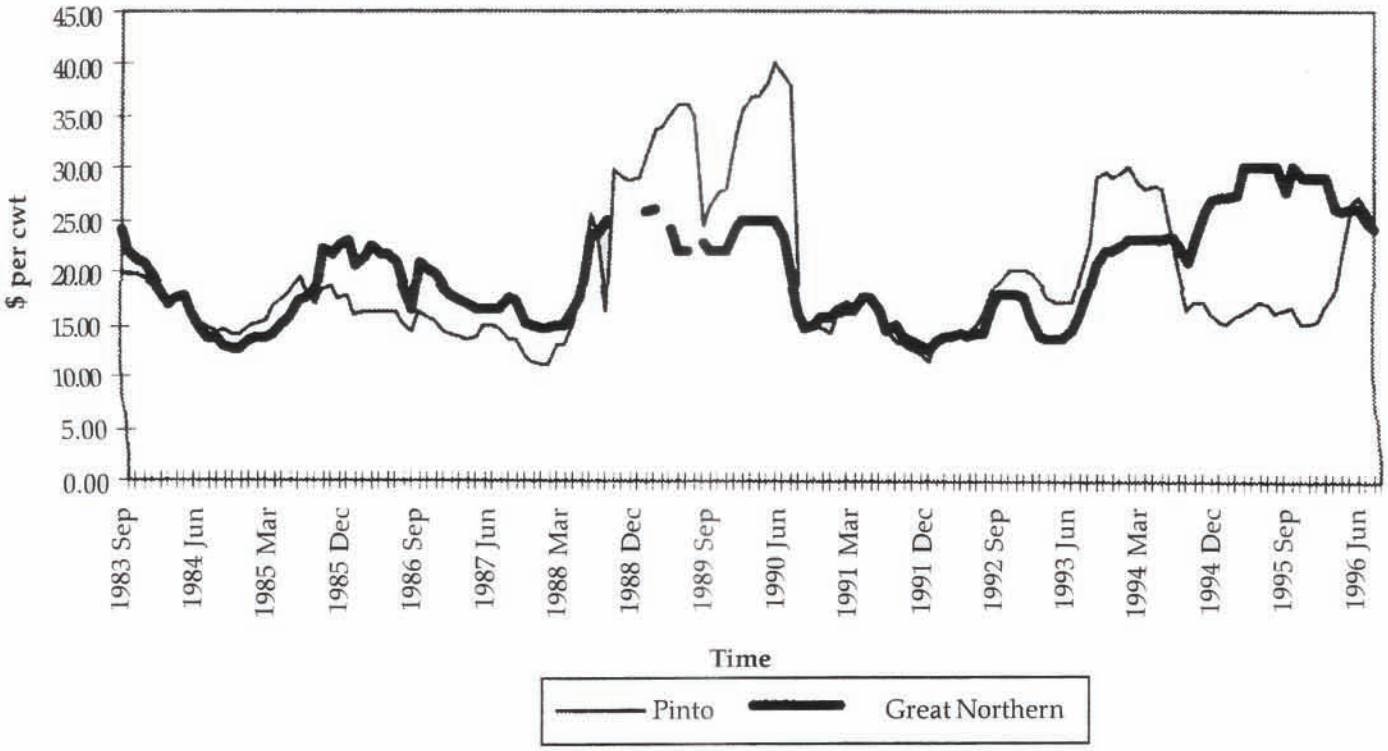

Figure 1. Monthly price for Nebraska pinto and great northern beans, 1983-1996.

very closely. Northern yielded slightly higher prices at first, then Pintos, and then Northern reverted again to having slightly higher prices. However, for a two-year period beginning with the 1988 harvest (September 1988) and ending with the 1990 harvest (September 1990), Pinto prices became much more volatile. For most of that time period, Pintos also were priced substantially higher than Northern beans.

Early in 1993 (January 1993) Pinto prices once again began to substantially exceed Northern prices. However, following the 1994 harvest (September 1994), Pinto prices declined sharply and Northern prices increased steadily. Northern prices were substantially higher than Pinto prices for all of 1995. By the summer of 1996, Pinto prices had rebounded back to the Northern price level.

Pinto beans had several high peaks during 1988-1990 (with maximum price $40) and 1993-1994 (with maximum price $30). Pinto prices hit lows in 1987-1988 (with minimum $11.13) and again in 1991-1992 (with minimum $11.50). Great Northern bean prices were less variable over time compared to Pinto bean prices. The highest price for Great Northern beans appeared in 1983-1984 ($24.19), 1988-1989 ($26), and 1994-1996 ($30). While the lowest prices for Great Northern bean were $12.63 in 1984-1985 and $12.50 in 1991-1992. Neither Pinto nor Great Northern beans showed any significant trend over time.

Since the majority of the Great Northern beans are produced in Western Nebraska-Eastern Wyoming (North Platte Valley), Great Northern bean becomes the major crop in North Platte Valley. Northern prices have been controlled very well by local industries, so that there is no significant variations over time. Pinto is produced in several regions, and its price in the North Platte Valley will be affected by the production in other regions. According to some producers information, there was a serious shortage in Pinto production between 1988 and 1990 due to bad weather. There was another shortage in Pinto supply between 1993 and 1994. Such shortage in supply combining with excess demand in export markets caused the Pinto prices to rise significantly during those two periods.

Seasonal Prices

Grower prices, in *Tables A1* and *A2*, can be examined on a crop year basis to demonstrate seasonal price variability. Prices for Pinto beans are reported in *Figure 2* (Box-Whisker Chart). Each vertical line in *Figure 2* represents the maximum and minimum average price for that month over 13 years (distance between the maximum and the minimum shows the range of the average monthly price). Each little rectangular box represents the typical variation of the average price in a month. The vertical distance for each box represents one standard deviation from the mean, which also normally indicates two-thirds of the observed prices will fall in this vertical distance. The center of each box, connected by the horizontal line, shows the mean price for each month.

There is a slight increase in the average monthly price of Pinto beans as the market year progresses.

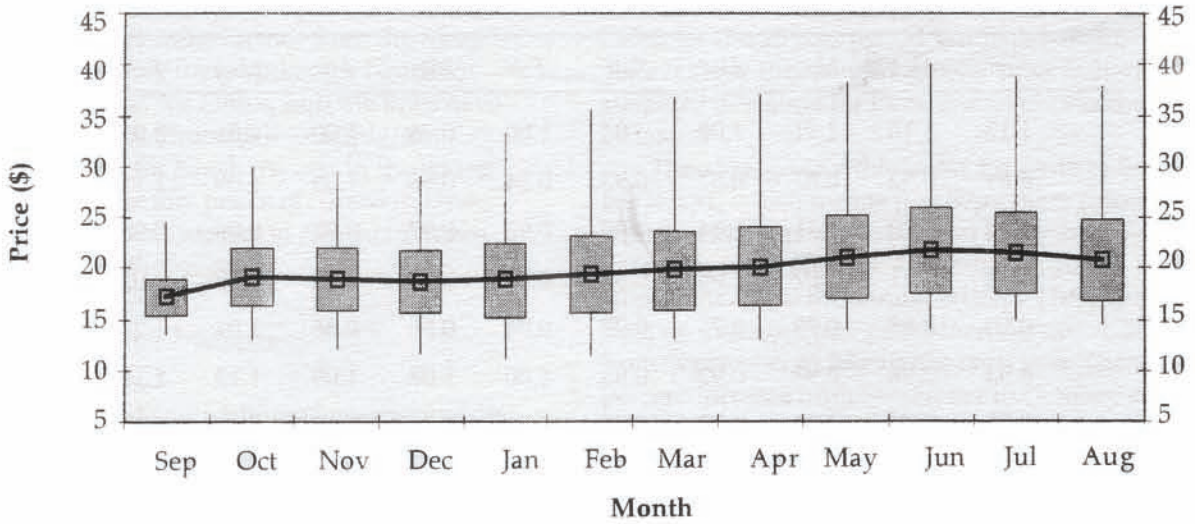

Figure 2. Actual average seasonal price for pinto beans, Nebraska, 1983-1984 to 1995-1995.

The average price of Pinto following harvest in September is close to $17 per cwt (*Table A1*). From October through February average prices rise and remain between $18.50 and $19.50 (*Table A1*). Average monthly prices then rise from March into July and peak just over $21.50 per cwt. before declining into next harvest season (*Table A1*). In three of the 13 crop years, Pinto prices declined from the harvest price (*Table A1*). That decline ranged from $1-4 per cwt. However, in five of the 13 years, Pinto prices increased over $5 per cwt from September to July, and the increase was more than $10 per cwt. in four of those years (*Table A1*).

The variation about the average monthly price also increases through the crop year (*Table A1*). At harvest time in September, the standard deviation is $3.43 per cwt. The standard deviation increases each month from October to June. With a standard deviation of $8.43, the variability in June is more than twice as much as the variability in September.

The range of monthly prices increases from just over $11 in September to $26 per cwt in June (*Table A1*). Monthly price highs are a greater distance from the mean than are monthly price lows, and these high price spikes increase throughout the year *(Figure 2)*. In the 1989-90 crop year, Pinto prices spiked higher and remained near $40 for several months (*Table A1*). The lows in Pinto prices were recorded only two years earlier around $11 (*Table A1*).

The Box-Whisker chart in *Figure 3* depicts the seasonal price information for Great Northern beans. There is practically no seasonal pattern for Great Northern bean prices. There is less then $1 per cwt difference between the highest and lowest average monthly price over 13 years (*Table A2*). The variation of the prices about the average is quite stable throughout the year. The range of Northern prices does not show the systematic pattern of increasing

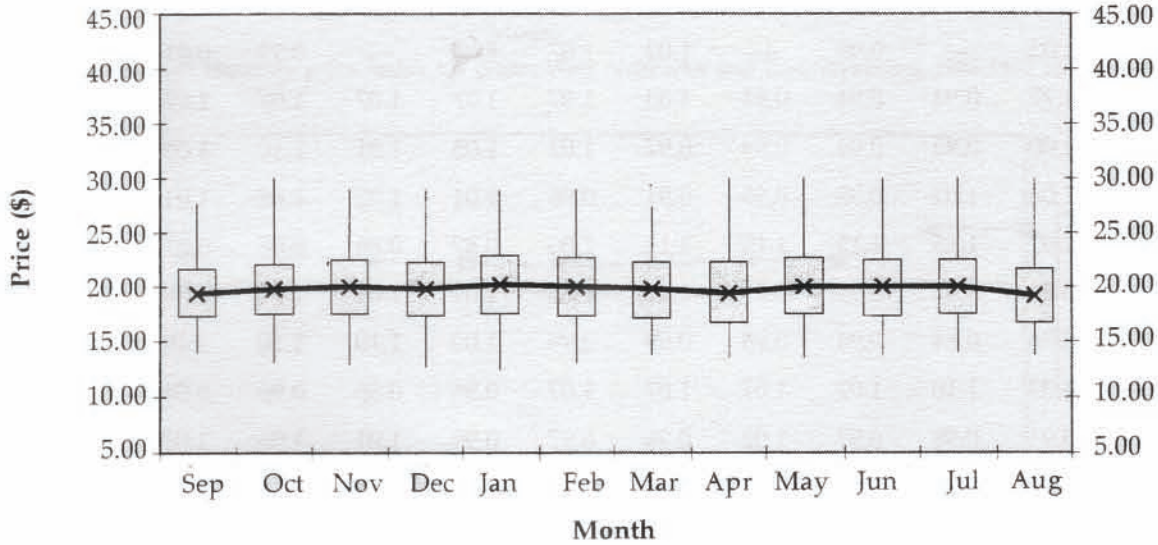

Figure 3. Actual average seasonal price for great northern, Nebraska, 1983-1984 to 1995-1996.

Table 1.Nebraska Pinto Monthly Price Indices, 1983-1984 to 1995-1996

Pinto	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*
1983-84	1.12	1.10	1.11	1.08	1.04	1.00	0.96	1.00	1.01	0.91	0.84	0.83
1984-85	0.89	0.92	0.87	0.87	0.93	0.94	0.96	1.04	1.09	1.12	1.22	1.14
1985-86	1.02	1.10	1.11	1.04	1.07	0.95	0.97	0.97	0.96	0.96	0.96	0.89
1986-87	0.98	1.11	1.07	1.05	0.97	0.96	0.94	0.92	0.95	1.02	1.02	1.00
1987-88	0.90	0.89	0.79	0.76	0.73	0.74	0.86	0.86	1.01	1.22	1.68	1.56
1988-89	0.53	0.96	0.93	0.92	0.93	1.00	1.08	1.09	1.13	1.16	1.16	1.12
1989-90	0.73	0.78	0.82	0.83	0.99	1.06	1.09	1.10	1.13	1.19	1.15	1.13
1990-91	1.00	0.95	0.95	0.93	0.90	1.00	1.01	1.02	1.12	1.13	1.05	0.92
1991-92	0.99	0.96	0.93	0.91	0.85	0.98	1.02	1.02	1.04	1.04	1.10	1.18
1992-93	0.99	1.02	1.07	1.07	1.07	1.06	1.00	0.95	0.91	0.91	0.91	1.04
1993-94	0.84	1.07	1.09	1.07	1.09	1.11	1.05	1.03	1.04	1.03	0.86	0.74
1994-95	1.01	1.05	1.05	0.99	0.93	0.93	0.97	0.99	1.02	1.05	1.03	0.98
1995-96	0.82	0.83	0.75	0.75	0.76	0.83	0.91	1.10	1.34	1.36	1.30	1.24
Average	0.91	0.98	0.97	1.02	0.94	0.97	0.99	1.01	1.06	1.08	1.10	1.06
Standard Dev.	0.15	0.11	0.13	0.12	0.11	0.10	0.07	0.07	0.11	0.13	0.22	0.21

Table 2. Nebraska Great Northern Monthly Price Indices, 1983-1984 to 1995-1996

Great Northern	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*
1983-84	1.30	1.18	1.14	1.12	1.05	1.00	0.92	0.94	0.96	0.88	0.78	0.73
1984-85	0.96	0.90	0.89	0.87	0.94	0.96	0.96	0.98	1.05	1.08	1.19	1.22
1985-86	0.86	1.05	1.02	1.06	1.08	0.96	1.00	1.06	1.02	1.02	0.98	0.88
1986-87	0.93	1.16	1.12	1.11	1.03	1.01	0.98	0.95	0.93	0.93	0.93	0.93
1987-88	1.02	1.01	0.89	0.87	0.86	0.86	0.87	0.87	0.96	1.03	1.38	1.37
1988-89	1.03	—	0.99	—	1.02	1.07	1.08	—	0.99	0.91	0.91	—
1989-90	0.97	0.94	0.94	0.94	1.03	1.07	1.07	1.07	1.07	1.07	0.99	0.85
1990-91	1.00	0.92	0.94	0.99	0.97	1.02	1.05	1.01	1.10	1.09	1.01	0.90
1991-92	1.08	1.02	0.98	0.95	0.91	0.96	1.01	1.02	1.02	1.01	1.02	1.02
1992-93	1.07	1.15	1.15	1.15	1.11	1.00	0.87	0.86	0.86	0.87	0.92	1.01
1993-94	0.83	0.92	0.99	0.99	1.02	1.04	1.04	1.04	1.04	1.04	1.05	1.02
1994-95	0.76	0.84	0.94	0.98	0.99	0.99	1.00	1.10	1.10	1.10	1.10	1.10
1995-96	1.02	1.10	1.07	1.07	1.07	1.07	0.96	0.95	0.96	0.96	0.91	0.88
Average	0.91	0.98	0.97	1.02	0.94	0.97	0.99	1.01	1.06	1.08	1.10	1.06
Standard Dev.	0.15	0.11	0.13	0.12	0.11	0.10	0.07	0.07	0.11	0.13	0.22	0.21

through the crop year, like the Pinto prices. Similar to Pinto prices, high prices spike further from the mean than low prices. However these spikes for Northern have not been as high as for Pintos, and the lows have not dropped as much as Pintos. For example, the highest price recorded for Northern was in the spring of 1995 at $30, while the low prices occurred in January of 1992 at $12.50. The changes in Northern prices are not as dramatic as Pintos prices.

Price Indices

Price indices provide an additional perspective on seasonal prices. Price indices show monthly prices as a percentage of the annual average price. In this manner, seasonal price patterns can be compared for different crops, the same crop in different markets, or different varieties of the same crop even though their average price level may be considerably different. Average monthly price indices are calculated as following:

$$\textit{Average Monthly Price Index} = \left(\frac{\textit{Individual Monthly Price}}{\textit{Average Annual Price}} \right) \div n$$

where n is the number of crop years.

For each bean variety, an historical average price index for the 13 year period is calculated. *Table I* and *Table II* show the monthly grower price indices and standard deviation for Pinto and Great Northern beans.

The average monthly index for Pinto in September is 0.91, which means that September prices are 91 percent of the annual average or 9 percent below the annual average (*Table I*). The index for July is 1.10, or 10 percent above the annual average (*Table I*). Therefore, on average Pinto prices increase about 20 percent from September to July in one crop year. There is a 7 percent increase from September to October, and by December there is on average an 11 percent increase (*Table I*). The price index can also be used as a forecast tool. If the price in September was $15 per cwt, then the July price would be expected to be $18.13 per cwt (($15 ÷ .91) * 1.10 = $18.13). In contrast to the seasonal Pinto pattern, the Great Northern average monthly index remains approximately equal to 1.0 throughout the year (*Table II*). This again portrays that there is no significant seasonal pattern for Northern prices.

Figure 4 and *Figure 5* present ten-year average monthly price indices for Pinto bean and Great Northern bean. The solid bold line represents average monthly price indices. One dotted line above the mean shows average price index plus one standard

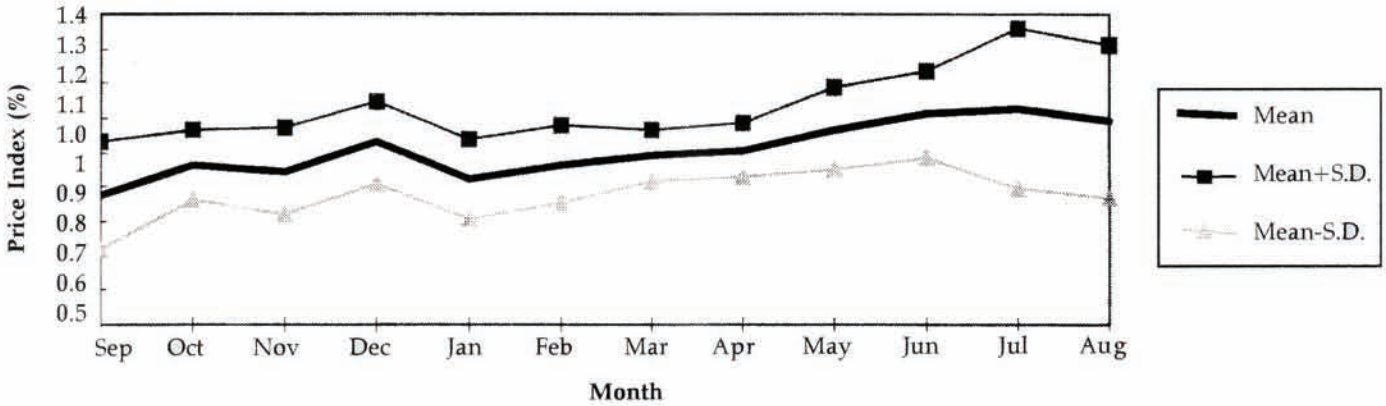

Figure 4. Ten-year average monthly price index for pinto, West Nebraska and East Wyoming, 1986-1987 to 1995-1996.

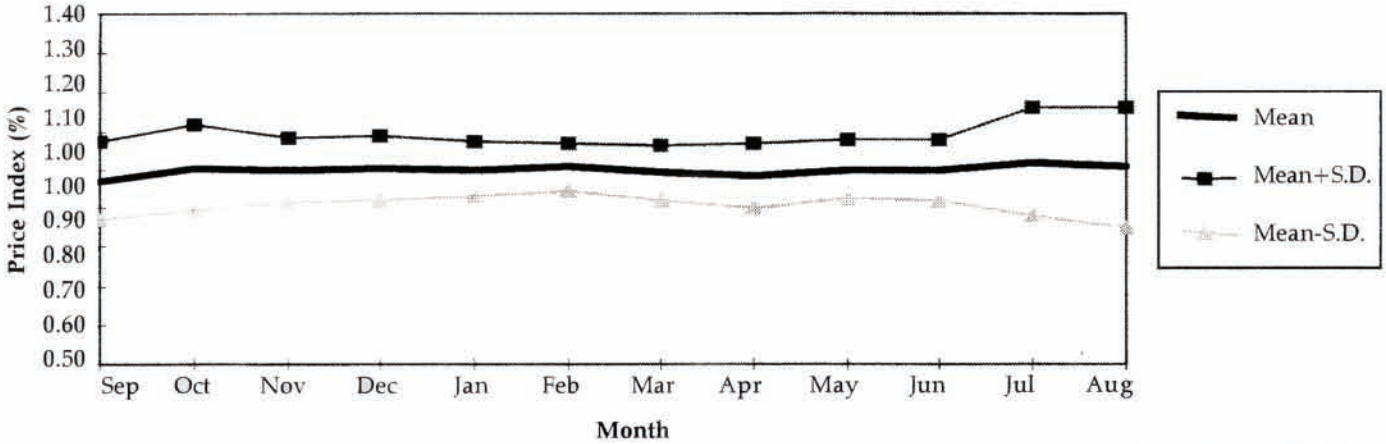

Figure 5. Ten-year average monthly price index for great northern, west Nebraska and east Wyoming, 1986-1987 to 1995-1996.

deviation, while the dotted line below the mean shows average price index minus one standard deviation. There is a slightly increasing trend in Pinto bean prices compared to Great Northern bean prices over the past 10 years. The average monthly price index is pretty stable for Great Northern bean. For both varieties, the standard deviation of monthly price index increases in June, July, and August. Overall, Pinto beans have a smaller standard deviation between September and May compared to Great Northern beans.

Market Comparison for Pinto Bean

The supply and demand conditions for Pinto may not be the same in each of geographically independent production and market regions. Growers in different production regions should expect slight and temporary differences in seasonal and general prices, while large and persistent price differences should not exist between markets. Price differences encourage arbitrage between markets which tends to close price differentials. The only price differences between two markets should be transportation and other regular marketing costs.

Table III lists historical grower prices for Pinto bean in four markets. Bean growers in Idaho received a slightly higher price in most of the thirteen crop years, and bean growers in North Dakota received a slightly lower price compared to other regions. The Western Nebraska-Eastern Wyoming production area and the Northeastern Colorado production area are the closest in geographic proximity to one another. Not surprisedly, the prices in those two regions are nearly identical. The variability in annual prices across the four markets is quite consistent as all the standard deviations are in a range of $6.26 to $6.67 per cwt.

Table III. Historical Prices for Pinto, 1983-1984 to 1995-1996

	Markets			
Year	*Nebraska*	*Colorado*	*Idaho*	*North Dakota*
1983-1984	17.97	17.94	17.33	16.99
1984-1985	16.10	16.53	16.21	15.15
1985-1986	16.84	16.83	17.83	15.44
1986-1987	14.68	14.65	15.06	13.65
1987-1988	15.17	15.11	16.00	14.55
1988-1989	31.15	29.85	32.96	31.90
1989-1990	33.69	32.99	33.90	31.38
1990-1991	15.71	15.70	16.50	14.89
1991-1992	13.51	13.53	14.02	11.82
1992-1993	18.67	18.68	18.93	16.42
1993-1994	27.14	27.14	26.96	25.76
1994-1995	16.21	16.21	17.27	15.16
1995-1996	19.88	19.92	20.14	18.59
Mean	19.75	19.62	20.24	18.59
Standard.Dev.	6.58	6.26	6.66	6.67

Table IV lists average monthly price indices for Pinto bean in the four markets through one crop year. Pinto prices are usually low in harvest month (September), then gradually increase from October to July. Price dropped slightly in August since new crops start getting into the market. The seasonal pattern appears to be very consistent from one area to another. The Nebraska price is slightly lower at harvest in September as compared to the other markets. North Dakota seems to have a larger deviation in monthly prices.

Table IV. Seasonal Average Monthly Price Indices for Pinto, 1983-1984 to 1995-1996

	Sep	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*
Colorado												
Price Index	0.94	0.98	0.97	0.95	0.95	0.99	0.99	1.01	1.06	1.09	1.10	1.04
Standard Dev.	0.10	0.10	0.13	0.13	0.11	0.12	0.08	0.08	0.12	0.13	0.23	0.21
Idaho												
Price Index	0.95	0.99	0.97	0.96	0.95	0.96	0.97	1.01	1.05	1.07	1.08	1.05
Standard Dev.	0.11	0.11	0.12	0.11	0.11	0.08	0.06	0.06	0.11	0.12	0.20	0.19
North Dakota												
Price Index	0.94	0.99	0.98	0.95	0.94	0.98	0.98	1.00	1.05	1.08	1.10	1.02
Standard Dev.	0.12	0.12	0.14	0.14	0.13	0.11	0.08	0.08	0.12	0.15	0.26	0.29
Nebraska												
Price Index	0.91	0.98	0.97	1.02	0.94	0.97	0.99	1.01	1.06	1.08	1.10	1.06
Standard Dev.	0.15	0.11	0.13	0.12	0.11	0.10	0.07	0.07	0.11	0.13	0.22	0.21

Summary

This Extension Circular has been a price analysis study of grower prices for Pinto and Great Northern beans with focus on western Nebraska-eastern Wyoming markets. A simple compilation of actual grower prices does not adequately reveal seasonal trends, variation, or price ranges necessary for farmer marketing decisions. Thus, graphical presentations were portrayed and seasonal indices and measures of variation were calculated.

Four major points emerge from this price analysis.

- Neither Pintos nor Northerns are consistently higher priced for an extended time period.
- The price for Pintos increases seasonally 20 percent over the harvest price, in contrast to Northern which have no seasonal pattern.
- Pinto prices exhibit greater variation and range than Great Northern prices.
- For both Pinto and Northern prices the short-term high price swings far exceed in magnitude the short-term dips in prices.

With a 13 year average price of Pintos equal to $19.75 and Northern equal to $19.93, further price analysis is needed to formulate unique marketing plans for different bean varieties. There are several management/marketing implications from this study.

- With less variation in prices, there is less price risk in growing Northern.
- On average, the price indices indicate there is no benefit to storing Northern.
- Given a seasonal pattern of a 20 percent increase in prices for Pintos storage may be profitable.
- If multi-year storage is done in anticipation of a substantial up tick in prices, there is a potential for higher returns with Pintos.
- Given that the magnitude of the high price swings exceeds the magnitude for the low price dips, there is a greater opportunity for substantial positive returns over substantial losses in storing both Pinto and Northern beans.

Appendix

Table A1. Historical Price for Pinto, West Nebraska and East Wyoming, 1983-1984 to 1995-1996

Crop Year	*SEP*	*OCT*	*NOV*	*DEC*	*JAN*	*FEB*	*MAR*	*APR*	*MAY*	*JUN*	*JUL*	*AUG*	*Average*
1983-1984	***20.06****	19.75	19.90	19.44	18.65	18.00	17.31	17.94	18.15	16.44	15.10	14.88	17.97
1984-1985	14.38	14.75	14.03	14.08	14.90	15.19	15.50	16.80	17.63	18.06	***19.60***	18.31	16.10
1985-1986	17.13	18.50	***18.63***	17.56	18.00	16.06	16.38	16.30	16.13	16.13	16.25	15.06	16.84
1986-1987	14.44	***16.31***	15.75	15.38	14.31	14.13	13.80	13.50	13.88	15.00	15.00	14.67	14.68
1987-1988	13.60	13.44	12.00	11.50	11.13	11.25	13.05	13.06	15.25	18.55	***25.50***	23.67	15.17
1988-1989	16.37	29.88	29.00	28.67	29.00	31.00	33.63	34.00	35.20	***36.00***	***36.00***	35.00	31.15
1989-1990	24.50	26.40	27.75	28.00	33.20	35.63	36.75	37.00	38.20	***40.00***	38.80	38.00	33.69
1990-1991	15.75	15.00	15.00	14.67	14.10	15.75	15.88	16.10	17.63	***17.75***	16.50	14.38	15.71
1991-1992	13.38	12.95	12.50	12.25	11.50	13.25	13.80	13.75	14.00	14.00	14.88	***15.88***	13.51
1992-1993	18.40	19.00	***20.00***	***20.00***	***20.00***	19.88	18.60	17.75	17.00	17.00	17.00	19.40	18.67
1993-1994	22.75	29.00	29.50	29.00	29.63	***30.00***	28.40	28.00	28.13	28.00	23.25	20.00	27.14
1994-1995	16.38	***17.00***	***17.00***	16.00	15.10	15.00	15.80	16.00	16.60	***17.00***	16.75	15.90	16.21
1995-1996	16.25	16.60	15.00	15.00	15.20	16.50	18.00	21.80	26.67	***27.00***	25.80	24.75	19.88
mean	17.18	19.12	18.93	18.58	18.82	19.36	19.76	20.15	21.11	21.61	21.57	20.76	19.75
Standard Dev.	3.43	5.72	6.13	6.18	7.23	7.72	7.87	7.88	8.18	8.43	8.03	7.77	6.58
max	24.50	29.88	29.50	29.00	33.20	35.63	36.75	37.00	38.20	40.00	38.80	38.00	
min	13.38	12.95	12.00	11.50	11.13	11.25	13.05	13.06	13.88	14.00	14.88	14.38	
# of Mon. Avg > mean	4	4	5	5	4	4	3	4	4	4	5	4	

* Note: The highlighted value is the highest price in each crop year.

Table A2. Historical Price for Great Northern, West Nebraska and East Wyoming, 1983-1984 to 1995-1996.

Crop Year	*SEP*	*OCT*	*NOV*	*DEC*	*JAN*	*FEB*	*MAR*	*APR*	*MAY*	*JUN*	*JUL*	*AUG*	*Average*
1983-1984	***24.19***	22.00	21.20	20.88	19.55	18.56	17.19	17.50	17.85	16.38	14.55	13.69	18.63
1984-1985	13.91	13.08	12.84	12.63	13.60	13.88	13.94	14.20	15.25	15.69	17.30	***17.66***	14.50
1985-1986	18.34	22.25	21.69	22.56	23.00	20.50	21.38	***22.60***	21.63	21.75	20.90	18.75	21.28
1986-1987	16.60	***20.75***	20.00	19.70	18.38	18.00	17.40	17.00	16.50	16.50	16.50	16.50	17.82
1987-1988	17.50	17.31	15.25	15.00	14.75	14.75	15.00	15.00	16.50	17.75	***23.67***	23.50	17.17
1988-1989	25.00	NP*	24.00	NP	24.60	***25.75***	26.00	NP	24.00	22.00	22.00	NP	24.17
1989-1990	22.67	22.00	22.00	22.00	24.20	***25.00***	***25.00***	***25.00***	***25.00***	***25.00***	23.20	20.00	23.42
1990-1991	16.00	14.70	15.00	15.83	15.60	16.31	16.88	16.20	***17.63***	17.50	16.20	14.50	16.03
1991-1992	***14.88***	13.95	13.38	13.08	12.50	13.17	13.90	13.94	14.00	13.81	14.00	14.00	13.72
1992-1993	16.75	***18.00***	***18.00***	***18.00***	17.50	15.75	13.70	13.50	13.50	13.65	14.44	15.80	15.72
1993-1994	18.50	20.50	22.00	22.00	22.63	23.00	23.00	23.00	23.00	23.00	***23.25***	22.60	22.21
1994-1995	20.88	23.00	25.80	26.83	27.00	27.00	27.25	***30.00***	***30.00***	***30.00***	***30.00***	***30.00***	27.31
1995-1996	27.75	***30.00***	29.00	29.00	29.00	29.00	26.00	25.70	26.00	26.00	24.80	24.00	27.19
mean	19.46	19.80	20.01	19.79	***20.18***	20.05	19.74	19.47	20.07	19.93	20.06	19.25	19.93
Standard Dev.	4.28	4.73	4.91	5.14	5.30	5.38	5.19	5.54	5.20	5.09	4.94	4.97	4.65
max	27.75	30.00	29.00	29.00	29.00	29.00	27.25	30.00	30.00	30.00	30.00	30.00	
min	13.91	13.08	12.84	12.63	12.50	13.17	13.70	13.50	13.50	13.65	14.00	13.69	
# of Mon. Avg. > Mean	5	7	7	6	6	6	6	5	6	6	7	5	

* Note: The highlighted value is the highest price in each crop year.
* Note: Prices are not available for some months.