Research Article

Market arrivals and prices of pigeonpea in Marathwada region (M.S.)

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SUMMARY : An attempt was made to study market arrivals and prices of pigeonpea in Marathwada region. The study was based on secondary data collected from agricultural produce market committee (Regulated Market) of Parbhani and Nanded districts. The month wise market arrivals and prices data of pigeonpea from respective markets were used for analysis (1980-81 to 2005-06). The seasonal variation in arrivals and prices was calculated by using ratio to moving average method. The relationship between market arrivals and prices of pigeonpea was tested with the help of simple linear regression equation and double log model. The results revealed that, arrivals and prices of pigeonpea had strong season effect. The results confirmed the negative relationship between arrivals and prices in both the markets under the study.

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BACKGROUND AND OBJECTIVES

The pulses are unique crops as they have in built mechanism to fix atmospheric nitrogen in their root nodules. They are also rich in protein and fit well in various cropping systems. India grows such a variety of pulse crops which no country in the world grows. Among pulses, pigeonpea is important pulse crop grown in *Kharif* season followed by green gram and black gram. Pigeonpea is popularly known as "Tur" in Marathwada region of Maharashtra state.

The study of relationship between market arrivals and prices of the crop at different point of time help us to know the extent of inter and intra year variations in them. Such studies are useful to formulate economic policies and are beneficial for consumers, producers, traders and the Government. Arrivals of pulses in market, decide the prices of pulses (Agarwal and Sharma, 1990). Realizing the above fact, the study was carried out to examine the relationship between market arrivals and prices of pigeonpea in the Marathwada region.

RESOURCES AND METHODS

The secondary data on month wise market arrivals and prices of pigeonpea from 1980-81 to 2005-06 were collected from agricultural product market committee(Regulated market) of Parbhani and Nanded districts of Marathwada region. These two markets were particularly taken for the present study because they are major markets of the region. Seasonal variation in market arrivals and prices of pigeonpea, were captured with the help of ratio to moving average method. In order to know the relationship between market arrivals and prices of pigeonpea, the simple linear regression equation and semi log linear regression were used. In both the models, quantities of pigeonpea arrivals and per unit price of pigeonpea were regressed on time. The best fit model on the basis of coefficient of determination was used to explain the results.

OBSERVATIONS AND ANALYSIS

The results obtained from the present investigation have been discussed in the following sub heads:

Seasonal indices of market arrivals and prices of pigeonpea:

Results in the Table 1 revealed that, maximum

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arrival indices was observed in the month of January (329.13 %) followed by February (275.85 %) and March (193.31 %). While minimum arrival indices were found during June to November in Parbhani market. The arrivals of pigeonpea in Parbhani markets start in the month of January. The peak arrival period of pigeonpea in Parbhani market was January to April whereas slack period for pigeonpea arrivals were from June to November. In Nanded market, maximum arrival indices was found in the month of February (258.84 %) followed by March (213.11 %). Minimum arrival indices of pigeonpea in Nanded market were observed in the month of October (20.47 %). Maximum pigeonpea arrivals in Nanded market were observed during February to May. The negligible quantities of pigeonpea were marketed in Nanded market during the period of July to December. The arrivals of pigeonpea commodity in Nanded come one month late than its major opponent Parbhani market. The peak arrivals of pigeonpea in both the markets coincide with the harvesting season of this crop in the region which clearly indicate distress sale of pigeonpea commodity for the immediate cash need.

Marketwise monthly seasonal indices of prices for pigeonpea shows that, maximum price indices was in the month of August (109.92 %) followed by July (109.40 %) and June (106.87 %) and minimum price indices were in November (90.17 %) followed by December (93.54 %) and January (94.68 %) in

Parbhani market. In Nanded market, maximum price indices were in July (108.70 %), followed by September (108.09 %) and August (106.48 %) and minimum price indices were in February (93.41 %) followed by January (94.39 %). The present investigation results are in accordance with Agarwal and Sharma (1990) with respect to indices of prices.

In conformity of thumb rule, the prices of pigeonpea in both the markets sharply decreased during peak arrivals period of commodity. During slack arrival period, the prices of pigeonpea remained above normal price level. The main reason for this phenomenon was traders attract the pigeonpea stockiest to convert their stock in to supply by providing price incentive to them.

Relationship between market arrivals and prices of selected pulses:

Relationship between market arrivals and prices of pigeonpea was calculated and presented in Table 2. Results in the table show that relationship between market arrivals and prices of pigeonpea in Parbhani and Nanded market was negative and statistically significant at 5 per cent level of probability. The regression coefficient (b) value worked out to -0.041 and -0.039 for Parbhani and Nanded market, respectively. These regression coefficient value indicated that when one unit of arrival increase in the market, the price of

Table 1 : Seasonal arrivals and prices indices of pigeonpea in selected markets of Marathwada region (1980-81 to 2005-06)

Month	Parbhani		Nanded	
	Arrivals	Prices	Arrivals	Prices
Oct.	7.68	100.75	20.47	99.75
Nov.	9.13	90.17	34.98	95.60
Dec.	92.99	93.54	36.38	94.42
Jan.	329.13	94.68	199.19	94.39
Feb.	275.85	95.06	258.84	93.41
Mar.	193.31	95.75	213.11	96.34
Apr.	132.85	97.37	134.25	97.06
May	70.98	102.21	111.78	100.66
June	44.38	106.87	75.65	105.04
July	19.67	109.40	54.90	108.70
Aug.	14.27	109.92	30.43	106.48
Sept.	9.69	104.22	29.96	108.09

Table 2 : Arrivals and price relationship of pigeonpea in selected markets of Marathwada region. (1980-81 to 2005-06)

Parameters	Parbhani	Nanded
Simple linear regression model		
Intercept	103.03	103.91
Regression coefficient (b)	-0.041 (0.03)	-0.039 (0.02)
R^2	0.26	0.33
Semi-log model		
R^2	0.18	0.24

** indicates significance of value at P=0.05

pigeonpea commodity decline by 0.041 and 0.039 per cent over the initial arrivals. The coefficient of determination (R^2) value for best fitted model of Parbhani and Nanded market was 0.26 and 0.33. This implies that, only 26 per cent 33 per cent of the total variation in price was explained by the variable arrivals in Parbhani and Nanded market, respectively. Similar findings were also observed by earlier workers (Handiganur, 1998).

Thus, it is evident from the foregoing discussion that the bulk of the pigeonpea commodity come for marketing in both the market immediately after harvest of the crop (January to May) and prices of pigeonpea decreased sharply during these days. Farmers of the region have weak hording capacity. Traders give more price incentives during slack arrivals period. Results confirmed the negative relationship between arrivals and prices of pigeonpea commodity.

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