

Marketing of Fruit Crops and its Products in Arid Zone

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Introduction

The role of Agriculture Marketing is crucial in post harvest technology of agriculture production. In the absence of remunerative prices to the producers, agriculture production gets a setback. In view of this, the State Government acknowledged the importance of regulated markets so as to ensure fair return to the farmers. With this purpose in mind the Government promulgated Rajasthan Agriculture Produce Market Act in the year 1961 which came into force in the year 1964. To start with there were only nine market committees in the State. The number of such committees has gone up to 125 by now. There are 305 sub yards under the principal market yards at present. A wide network of market regulation has been provided all over the state. Efforts are being made to ensure further strengthening of the network so as to provide market facilities to the farmers at short distances preferably within a radius of 15-20 Km.

Out of the 125 regulated markets, 14 markets viz. Kota, Jaipur (Grain), Jaipur (F&V), Jodhpur (Grain), Sriganaganagar (Grain), Baran, Hanumangarh, Alwar, Bikaner (Grain), Bundi, Chomu, Khairthal, Ramganjmandi & Merta city are under super Class category and 19 markets are under "A" class category, 33 markets are in "B" class, 41 are in "C" Class and the remaining have been classified as "D" class markets according to their income from market fee as under:

Market Class	Annual Income from Mandi Fee
Super A	Rs. 2.5 Crore and above
"A"	More than Rs. 1.5 Crore but less than 2.5 Crore
"B"	More than Rs. 75 Lakhs but less than 1.5 Crore
"C"	More than Rs. 25 Lakhs but less than 75 Lakhs
"D"	Less than Rs. 25 Lakhs

Present status of production, marketing and suggestions for improvement

A. Cereal crops

The major cereal crops traded in the markets under Jodhpur zone are Pearl Millet, Barley, Sorghum, Maize, and Wheat. The arrivals in the market yards include both local production and produce received out of zone or state. The quantity received by different markets under Jodhpur zone for sale and its value is given in table -1B. The quantity and value of Pearl Millet received was highest in Jodhpur zone.

Table 1A: Area and production of cereals in arid region of Rajasthan (T.E. 2006-07)

Crop	Area (ha)	Production (M.T.)
Pearl Millet	37,26,517	14,76,854
Barley	81,056	187777
Sorghum	2,00,840	76,139
Maize	51836	27,459
Wheat	7,99,417	22,07,569

Table 1B: Quantity and value of different cereals traded at Jodhpur zone markets

Crop	2007-08		2008-09	
	Quantity (In qtls)	Value (Rs in lakhs)	Quantity (In qtls)	Value (Rs in lakhs)
Pearl Millet	557679	3797.81	322531	2594.38
Barley	32185	313.21	24799	242.12
Sorghum	56994	595.05	51626	435.46
Maize	85944	738.35	51953	459.65
Wheat	102741	1012.83	77898	837.04

a) Pearl Millet

Present status: It is a major cereal crop of arid Rajasthan. Though in urban areas people's choice has shifted towards wheat consumption but in rural area it is still a preferred cereal. Beside consumption of grains in making chapati, its stover is used as dry fodder for bovines that provide great relief to farmers in drought period. It is mainly taken as rainfed crop in kharif season, but recently farmers of Sanchore, Raniwada and Bhinmal area of Jalore district and Sirohi district (adjoining Gujarat state) have started taking summer crop of Pearl Millet with irrigation. These farmers take two crops of Pearl millet, one as summer crop and another in normal season. Pearl millet from Gujarat, Haryana and surplus area in Rajasthan is also received at Jodhpur mandi. Only 5 percent farmers of this region bring the produce in the market, while rest of the farmers either keeps it for self consumption or sell in village itself to other farmers or trader. As drought is a common phenomenon in arid zone, farmers try to store grain for next year also. If there is normal rainfall continuously for two to three years, then due to normal production farmers sell surplus produce in the market. Produce from Gujarat state is received during April-May month in this mandi. Though major use of pearl millet is for food purpose but recently use of pearl millet has also been reported for beer purpose at small scale in Ringas (Sikar district).

Generally government does not procure pearl millet from market as it is not required. During last 10-15 years only once there was pearl millet glut in the market. As pearl millet is produced under rain fed condition, its quality is also superior to pearl millet produced under irrigation. Farmers in Sikar district grow pearl millet both in rainfed and irrigated condition. Irrigation is only given when dry spell prolongs due to delay in rainfall.

Large farmers or village shopkeepers act as middlemen. Large farmers take their own produce and produce collected from different farmers to nearby mandi and sell it. Middlemen generally have their own tractor trolley for transporting produce to nearest mandi. The reason behind not selling the produce in mandi by small/marginal farmers is that it is difficult to get transportation means for small quantity at affordable rates and another constraint is time that they want to use for earning

some wages. Sometime few small farmers join together and hire tractor for transporting produce to mandi. The distance of regulated market from village also plays a great role in taking decision regarding place of sale. Another important reason of not selling in regulated market by all farmers is that commission agents (Buyer) do not pay the value of produce to farmer on same day. The time gap in payment varies from 7-10 days to even sometime it extends up to one month. When farmers sell produce in village itself though rates are lower than mandi they get immediate payment which helps them in meeting cash requirement especially to small farmers.

Suggestions: Looking to importance of pearl millet in this region MSP should be hiked as in other cereals/ pulses. Farmers must be protected during high production period. Government should either timely procure pearl millet or pay the difference between MSP and market price to the farmers. The industrial use of pearl millet may further be explored (e.g. production of beer) it may help in fetching better price to farmers.

b) Sorghum

Present status: It is mainly grown for fodder purpose and only 10-15 percent farmers allow the crop to mature and take grain production while remaining farmers harvest it before maturity and store for dry fodder purpose. Sorghum grains are also used as poultry and livestock feed. In regulated market sorghum is also received from other states.

Suggestions: Nil

c) Barley

Present status: Barley is also received from other states and outside the arid zone. It is not in the food habits of desert people. It is produced in some pockets of Sikar, Jhunjhunu, where the grains are used in beer production and animals feed industry. Its storage capacity is very low and it spoils within a month at household level by insects. There is no problem in marketing of this crop as demand is high.

Suggestions: Nil

d) Wheat:

Present status: It is mainly cultivated by farmers having assured irrigation facilities. Wheat traded at Jodhpur market is mainly received from irrigated areas of Rajasthan and Punjab and Haryana state. Since there is very high gap between demand and supply of wheat, farmers growing wheat in arid region sell either to consumers or traders in village itself.

Suggestions: At present mandi fee in wheat is 1.6 percent, and VAT is 4%. Beside it purchaser is to pay two percent commission to commission agent. To encourage maximum wheat trade in regulated markets, the taxes is to be reduced. It will help in legal trade of wheat and government may get more revenue that could be used for farmers' welfare schemes.

B. Pulses

The major pulses received in markets under Jodhpur zone are Gram, Green gram and Moth bean. The arrivals in the market yards include both local production and production received from out of zone or state. The quantity received by different markets under Jodhpur zone for sale and its value is given in table -2B. The quantity and value of green gram received was highest in Jodhpur zone.

Table 2 A: Area and production of pulses in arid region of Rajasthan (T.E. 2006-07)

Crop	Area (ha)	Production (M.T.)
Gram	809790	496958
Green gram	571386	138234
Moth bean	1267981	175624

Table 2 B: Quantity and value of different pulses traded at Jodhpur zone markets

Crop	2007-08		2008-09	
	Quantity (In qtls)	Value (Rs in lakhs)	Quantity (In qtls)	Value (Rs in lakhs)
Gram	190425	3793.17	169879	3804.90
Green gram	290832	6347.20	307689	8635.01
Moth bean	185605	3408.38	206214	3640.79

a) Gram

Present status: About 90 percent gram is produced under irrigated condition and only 10 percent is rain fed. Earlier there was lot of gram area cultivated under conserved moisture. The market fee and VAT on gram is 1.6 percent and 1 percent, respectively. Due to low taxation, maximum gram is sold in markets. Bikaner is a big centre for gram trade.

Suggestions: More encouragement to gram processing industries

b) Green gram

Present status: About 80-90 percent area under green gram is rainfed. Markets receive about 70 -80 percent of production while 20-30 percent is kept for home consumption or sold at village itself. MSP is generally lower than market price. There is no problem in sale of green gram in the markets. It is mainly consumed by pulses industry. The market fee and VAT is 1.6 % and 4 %, respectively. At present only 50 percent produce reaches in the market yard while remaining is sold directly to traders or factories.

Suggestions: MSP should be raised. The taxes should be reduced so that more trade takes place in market.

c) Moth bean

Present status: In moth bean about 90 percent area is rainfed. Similar to green gram about 70-80 percent produce is sold in market while remaining is consumed at home or sold in village itself. Moth bean is mainly used in NAMKEEN (Salted confectionery) and PAPAD industry. In moth bean almost whole area is un-irrigated. The market fee and VAT is 1.6 % and 4 %, respectively. At present only 50 percent produce reaches in the market yard while remaining is sold directly to traders or factories.

Suggestions: MSP should be raised. The taxes (VAT) should be reduced so that more trade takes place in market. Government revenue will increase by lowering the taxes as trade will increase in the market. Industry should also be encouraged by lowering taxes.

C. Oil seeds

The major oilseeds received in markets under Jodhpur zone are castor, ground nut, rape and mustard, taramira and sesame. The arrivals in the market yards include both local production and production received from out of zone or state. The quantity received by different markets under Jodhpur zone for sale and its value is given in table -3B. The quantity and value of mustard received was highest in Jodhpur zone.

Table 3A: Area and production of oilseeds in arid region of Rajasthan (T.E. 2006-07)

Crop	Area (ha)	Production (M.T.)
Castor	109547	95,849
Ground nut	150099	251098
Rape & Mustard	1193780	1386518
Taramira	151704	43467
Sesame	240841	54897

Table 3B: Quantity and value of different oilseeds traded at Jodhpur zone markets

Crop	2007-08		2008-09	
	Quantity (In qtls)	Value (Rs in lakhs)	Quantity (In qtls)	Value (Rs in lakhs)
Castor	3136.41	151012	4519.92	184019
Ground nut	2089.31	86313	1435.53	54602
Rape & Mustard	18983	947768	19731	816995
Taramira	486.36	30370	262.99	10608
Sesame	1907.08	48873	3538.36	61354

a) Castor

Present status: Farmers sell 100 percent of the produce. About 70-80 percent of the produce is received at market while rest of produce is directly sold in factories for processing. The general market price of castor remains higher than MSP, so farmers do not face any problem in selling the produce. The mandi fee and VAT are 1 % and 4%, respectively.

Suggestions: Processing industry should be given more incentives; taxes must be competitive with border state as comparatively higher tax in state may lead to sale of produce in other states

b) Ground nut

Present status: Bikaner is the major market for ground nut. Produce from Jaisalmer, Jodhpur, Nagaur and some other areas are sold at Bikaner market. The mandi fee and VAT on ground nut are 1.6% and 4 %, respectively. About 90 percent is the marketed surplus with farmers. The market receives 50 percent of the produce while rest is directly sold to traders and or processing industry. There is no problem in selling groundnut in the market.

Suggestions: Processing industry should be given more incentives; taxes must be reduced to have more trade in mandi rather than direct sale to traders or oil industry. Lowering of taxes will encourage the traders to have fair business and it will enhance government's revenue collection.

c) Rape and mustard/ Taramira

Present status: There is no particular mandi for mustard and it is received at all district headquarters. About 50 percent of the produce is sold through market while rest is directly sold to traders or processing industry. Produce is mainly received from irrigated belt of the zone. The mandi fee and VAT are 1.6% and 4%, respectively. Price fluctuations are there with the change in production. MSP helps in maintaining market prices.

Suggestions: Lowering the taxes may help in enhanced trade in markets. During bumper production year general price is lower than MSP and government should take timely steps in procurement or pay the difference between MSP and general price to farmers. It will help in curtailment of government energy and expenses in arranging procurement, storage and further disposing of mustard crop.

d) Sesame

Present status: As local consumption of sesame is higher, only 30-40 percent of the produce reaches in the market. Traders sell the produce in other states as per demand. It fetches higher price from export if certified as organic produce as use of sesame is very high in bakery products in Europe and USA

Suggestion: Sesame has very high fluctuations in production but farmers do not have problem in sale of this crop. As it is a rainfed crop and farmers hardly apply any fertilizer or pesticides, efforts should be made to certify it as organic produce for export so that even if production is less, farmer will get higher gross returns due to better sale price.

D. Spices

The major spices received in markets under Jodhpur zone are chilli and cumin. Both volume and value of the produce is higher for chilli. The arrivals in the market yards include both local production and production received out of zone or state. The quantity received by different markets under Jodhpur zone for sale and its value is given in table -4 B. The quantity and value of rape and mustard received was highest in Jodhpur zone.

Table 4 A: Area and production of spices in arid region of Rajasthan (T.E. 2006-07)

Crop	Area (ha)	Production (M.T.)
Chilli	9701	7136
Cumin	136943	45200

Table 4B: Quantity and value of different spices traded at Jodhpur zone markets

Crop	2007-08		2008-09	
	Quantity (In qtls)	Value (Rs in lakhs)	Quantity (In qtls)	Value (Rs in lakhs)
Chilli	89823	4309.11	84056	4390.52
Cumin	27321	2763.82	51197	4889.03
Fennel	16842	676.86	26734	1012.74

a) Chilli

Present status: Rajasthan state has deficit in chilli as consumption is higher than production. Chilli is received from Guntur (A.P.) to fill this gap. MATHANIA, a place in Jodhpur district was famous for chilli production, but now other places chilli is sold in the name of MATHANIA as chilli production

in this area has drastically reduced. There is no MSP in chilli and farmers receive good price. Normally it takes about 20-30 days in drying of chilli under field condition. If chilli is not properly dried and moisture is high during filling of bags than black spots are developed which causes low market value. In first picking most of the produce has spots and price is low, as stage of picking increases produce is of better quality and fetches higher prices, in last picking quantity of seeds is higher and storage capacity is also better than first picking.

Suggestion: Post harvest management for fast drying of crop may help farmers in saving labour and check the damage of the crop. Presently farmer spends 20-30 days in drying which causes loss to him as some produce is spoiled while drying.

b) Cumin

Present status: About 90 percent of Indian cumin production is in Rajasthan but only 10-20 percent of the produce is sold in Rajasthan while remaining 80-90 percent produce is sold in Unjha mandi of Gujarat state. In Unjha mandi trade of fennel and Isabgol also takes place. Jodhpur has recently got special commodity specific market yard for trade of cumin but due to established market in Unjha and payment on the same day, farmers of Rajasthan also prefer to sell the produce in Unjha mandi. Farmers have no problem in sale of cumin at Unjha mandi but in Jodhpur market due to lower competition prices are not competitive and cash payment is also not received. Traders of Unjha mandi sometime pay in advance money and bags to farmers based on standing crop in the field. Rajasthan cumin is considered as of best quality in Unjha mandi.

Suggestions: Cash incentives on per quintal basis may be given to cumin farmers for few years to establish the edge of Jodhpur mandi. It will help in more participation of traders from different parts of the country and with higher trade volume government will get more revenue.

E. Miscellaneous

Table 5A: Area and production of miscellaneous crops in arid region of Rajasthan (T.E. 2006-07)

Crop	Area (ha)	Production (M.T.)
Isabgol	1,05,014	36181
Cluster bean	22,55,003	4,30,805
Henna	42,582	30,934

Table 5B: Quantity and value of different crops traded at Jodhpur zone markets

Crop	2007-08		2008-09	
	Quantity (In qtls)	Value (Rs in lakhs)	Quantity (In qtls)	Value (Rs in lakhs)
Onion	130097	1043.17	129603	889.11
Garlic	58741	1512.09	56367	293.21
Isabgol	7282	240.54	1993	82.42
Cluster bean	720147	11754.32	451071	7289.02
Henna	370796	6288.80	297951	9756.77
Other Fruits and Vegetables	1741392	15152.14	1814258	15298.54

a) Onion

Present status: About 60-70 percent onion received at mandi is local produce while rest is received from other states especially Nasik (Maharashtra). If farmers' produce at NASIK is spoiled then prices of local onion is increased. In bumper production years, the price reduces drastically and farmers incur heavy losses.

Suggestions: Incentives is to be given for enhanced cold storage facility in the region that will help farmers in postponing sale till he receives better price. MSP must be implemented and government must ensure procurement in years when prices falls below MSP or compensate the difference in MSP and general price to farmers.

b) Garlic

Present status: Produce from other countries especially from China affects local garlic price. The size of Chinese garlic is bigger than Indian garlic; hence it is easy for women to use but quality (Pugnacity) is comparatively poor. In high production and high import regime, prices fall drastically and farmers incur heavy losses.

Suggestions: Import duty on Chinese garlic should be increased to protect Indian garlic producers and MSP should be implemented whenever prices are lower than MSP. Cold storage facility for garlic needs further enhancement.

c) Cluster bean

Present status: Jodhpur is a major market for cluster bean due to presence of large number of processing industries that generates large amount of export revenue. The mandi fee and VAT is 1.6 percent and 4 percent, respectively. About 90 percent trade of cluster bean is through regulated market (mandi) while 10 percent is directly sold to traders. There is no storage problem in this crop. The price fluctuations are very high.

Suggestions: MSP must be implemented to save the farmers in case market price is lower than MSP.

d) Isabgol

Present status: Unjha and Sidhpur in Gujarat are the major market for this crop. There are about 20 Isabgol based industries in Sidhpur town of Gujarat. Export demand of isabgol affects domestic prices. It has medicinal uses.

Suggestion: MSP must be implemented to protect the farmers.

e) Henna

Present status: Sojat is the major market for this crop. There is a special market yard for trade of henna at Sojat city and presently more than 100 henna based processing industries are operating in Sojat town of Pali district. Export demand and domestic henna production affects its prices in the market and farmers always face uncertainty about its prices. As labour expenses are higher than arable rainfed crops, in low price regime, farmers are not able to meet even cost of henna production. Henna in both powder form and leaves are exported to different European and Arabian countries and its worth is about Rs 100/- crore.

Suggestion: MSP must be implemented to stabilize the henna prices

General suggestions for trade of all crops in Rajasthan

1. At MSP government should not procure rather pay the difference between general market price and MSP, so that all procurement procedures will not be undertaken and government can save money on that account.
2. To encourage legal trade and sale through regulated markets only, taxes should be reduced; initially it may affect revenue collection but in long term revenue of government will increase as everybody will be interested to follow legal trade procedure.
3. Commodity specific markets for all the crops should not be opened as trade of the particular commodity is for few months only and rest of the period there is no trade in the yard. It affects the sustainability of the mandi yard.

Material for further reference:

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