

Market Opportunities for Pearl Millet in North Western India



Harnessing Opportunities for Productivity Enhancement (HOPE) of Sorghum and Millets in Sub-Saharan Africa and South Asia

Pearl millet is the most important millet crop in India, in terms of area and production share, after rice and wheat. About 91 per cent of area and production is from Rajasthan, Maharashtra, Gujarat, Uttar Pradesh and Haryana states and almost 46-49 per cent area of the pearl millet is in the Rajasthan state alone. Per capita consumption of pearl millet grain per annum in rural Gujarat (28.1 kg) and Rajasthan (28.8 kg) is much higher than per capita consumption in Urban Gujarat (7.3 kg) and Rajasthan (4.8 kg). While in Haryana demand for human consumption is low both in rural and urban areas. In 2010 production of pearl millet grain is 1101 thousand tons in Gujarat, 970 thousand tons in Haryana and 3823 thousand tons in Rajasthan. Demand for food is estimated from NSSO data (2003-04) and projected to increase by 2% per annum keeping the population growth. Demand for feed and fodder is estimated based on consumption estimates of animals and projected to increase by 5% per annum. Overall, 62% of production of pearl millet grain goes to food, 30% goes to cattle feed, 3% goes to poultry feed and only 5% goes to alcohol industry. Fodder availability in Gujarat and Rajasthan is 32 kg/animal/day and 26 kg/animal/day respectively compared to all-India average of 44 kg/animal/day. There will be huge gap between supply and demand (shortage) for fodder in three states by 2020 and 2025.

Input Markets

- The block level cooperatives sell fertilizer, seed and pesticide etc. They also undertakes government procurement operations at Minimum Support Price (MSP) on behalf of government agencies
- The private seed companies are concentrating on pearl millet hybrids, as the pay-offs is very high. Farmers are willing to buy private company seeds even though they are expensive due to higher productivity and profits

Grain Markets

- Primary Agricultural Produce Markets exists in block head quarters, where pearl millet grain is marketed. The secondary Markets exists in major towns and state capitals
- Inter-state trade between Rajasthan, Gujarat, Haryana, Maharashtra and UP is discernible. Of late, Export to Gulf countries (via Kutch) as feed for poultry/birds is significant

- For poultry feed and alcohol purpose, there is no quality preference, if prices are (below Rs.600-700/q) substantially below maize and sorghum, there is significant demand from poultry and alcohol industry.
- Most of the small scale dairy/mixed farming systems farmers use bajra as feed for cattle after boiling (each milk animal consume 0.5 kg/day) - major source of demand in future
- Preference as feed ingredient in feed mills is less, however there is demand from small dairy farms
- There are eight distilleries in Haryana; about half of them are using pearl millet as ingredient.

Fodder Markets (rainy season)

- The fodder markets are informal and exist in different scale depending on the location.
- The marketing practices are more or less similar in all the fodder markets
- Informal fodder markets exist in- 50 to 100 km distance on national highways (adda)- with 5-10 commission agents/traders.
- In sub-urban areas, pearl millet is grown exclusively as fodder crop
- Cost of transporting green fodder is about Rs 500/100km/ton
- On a daily basis, 10 kg of fodder is fed per animal for normal activity, of which 5 kg each is dry and green

Marketing channels

Presently, most of the farmers are selling their produce by using following marketing channels (a sub set of marketing system)

- PRODUCER-VILLAGE TRADER-WHOLESALER-RETAILER-CONSUMER
- PRODUCER –WHOLESALER – RETALER – CONSUMER
- PRODUCER –COMMISSION AGENT – WHOLESALER-RETAILER-CONSUMER.

The constraints of present marketing systems

1. Price of pearl millet is unstable during post harvest period due to glut in the market.
2. Asymmetric marketing information
3. Inadequate marketing infrastructure facilities

4. Low producer share in consumer rupee
5. High price spread.

In order to address the above constraints, farmers need to adopt Cooperative marketing is the system in realizing higher market margins from the sale of pearl millet.

Cooperative marketing is the system of marketing in which a group of producers join together and register them under respective state cooperative societies act to market their produce jointly. The members also deal in a number of cooperative marketing activities i.e. processing of produce, grading, packing, storage, transport, finance etc.

The cooperative marketing structure in different states consists of;

1. PMS (Primary Marketing Society) at Mandi level
2. SCMF (State Cooperative marketing federation) at the state level
3. NAFED (National Agricultural Cooperation Marketing Federation of India Ltd) at the national level

Benefits

1. Remunerative price to producers
2. Reduction in cost of marketing and commission charges
3. Effective use of infra-structure; collective processing and easy transportation
4. Credit facilities
5. Supply of agriculture inputs
6. Market information.

Best practices to be followed by farmers in postharvest management and marketing to increase the value of crop

- Ensure cleanliness and sanitation of packing areas, packing floors
- Remove foreign matter, damaged, discolored, shriveled immature grain
- Make uniform lots of size, shape, maturity, color and variety and grade according to specified standards, in proper pack sizes and labeling
- Follow proper storage practices like drying grains (12%) and hygienic conditions in store house
- Old and new grains may be stored separately
- Avoid fungal attack to prevent aflatoxin/ mycotoxin contamination

- Gain first hand knowledge regarding markets, market charges, prevailing prices in different markets through media/internet website
- Avail benefits of central/state government schemes like crop insurance, storage insurance, Grammeen Bhandaran Yojna, Financial Assistance on warehouse receipts, supply of gunny bags, etc.
- Be aware of rules and regulations pertaining to marketing and sale of produce
- Form SHGs/Cooperatives for collective bargaining power and effective redress of genuine problems
- Sell chapped fodder for realizing higher price in the market

DIRECT MARKETING

Direct marketing is an innovative concept, which involves marketing of produce i.e. pearl millet by the farmers directly to the consumers without any middlemen. Direct marketing enables producers and flour millers and other bulk buyers to economies on transportation cost and improve price realization. In addition, it reduces the transaction cost. It also provides incentive to large scale marketing companies i.e. flour millers and exporters to purchase directly from producing areas.

Benefits

1. Increases producer share in consumer rupee
2. Minimizes marketing cost
3. Satisfies the consumer through better quality of produce at reasonable price
4. Provides better marketing techniques to producers
5. Encourages direct contact between producers and consumers
6. Encourages the farmers for retail sale of their produce

CONTRACT MARKETING

Contract marketing is a system of marketing in which the commodity is marketed by farmers under a pre-agreed buy-back contract with an agency engaged in trading or processing. In contract marketing, a producer produces crop and deliver to the contractor, a quantum of required quality of produce based upon anticipated yield and contracted acreage at a pre-agreed price. Contract

marketing ensures continuous supply of quality produce at mutually contracted price to contracting agencies, as well as ensures timely marketing of the produce.

Benefits to producers

1. Minimizes price risk
2. Stabilizes price of produce and ensures the fair price to the producer
3. Promotes use of quality seed and inputs in production process
4. Delivers regular and assured payment through bank tie up

5. Reduces post harvest handling losses
6. Minimizes malpractices during marketing of produce
7. Increases marketing efficiency, by reducing the middlemen in the chain

Benefits to contracting agency

1. Minimizes risk of raw material supply
2. Gives assurance of supplying desired quality produce

There are certain limitations of contract farming like less bargaining power of the farmers due to poorness of the farmers against the giant contractors.

Farmers are also advised to get help of below mentioned organizations who are providing marketing services for most efficient marketing

| Name of the organization | Web site | Services provided |
|--|----------------------|--|
| Directorate of Marketing and inspection(DMI) | www.agmarknet.nic.in | Construction of rural warehouses. Agriculture marketing information. Training in Agril marketing. |
| Food Corporation of India(FCI) | www.fciweb.nic.in | Procurement of food grains . |
| Central warehousing corporation(CWC) | www.fieo.com/cwc/ | Provide scientific storage and handling facilities. |
| Agricultural and processed food products export development authority(APEDA) | www.apeda.com | Fixing of standards and specifications for the purpose of export of scheduled products. Registration of exporters for scheduled products. |
| State agricultural marketing board | www.msamb.com | Provide infra-structure facilities for the marketing of notified agricultural produce. |

About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, and 644 million of these are the poorest of the poor. ICRISAT and its partners help empower these poor people to overcome poverty, hunger, malnutrition and a degraded environment through better and more resilient agriculture.

ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs and four country offices in sub-Saharan Africa. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

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