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Dealers outlook and marketing status of *Bt* cotton seed companies in Banaskantha district

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Abstract

Cotton is the most important commercial crop of our country contributing up to 75% of total raw material needs of textile industry and provides employment to about 60 million people. *Bt* cotton is a genetically modified cotton crop that expresses an insecticidal protein whose gene has been derived from a soil bacterium called *Bacillus thuringiensis*, commonly referred to as *Bt*. The present study aimed to analyse the dealers outlook and marketing status of *Bt* cotton seed companies. The study has been undertaken in Deodar, Kankrej, Bhabhar and Deesa talukas of Banaskantha district, as all four talukas have higher area under *Bt* cotton cultivation. The multistage random sampling technique was adopted to select the districts, talukas and villages. The study was mainly based on primary data, which was collected with the help of structured schedule through personal interview method. Total 120 *Bt* cotton growers and 20 dealers were selected as sample respondents for the study. The results showed that across the different *Bt* cotton seeds companies dealer's margin varied from 12 to 16%. Majority of *Bt* cotton dealers were associated with companies from 5 to 10 years. The majority of the dealers considered *Bt* cotton seeds quality as a most important factor for selling *Bt* cotton seeds, followed by brand image, demand and price. *Bt* cotton seed dealer's major expectations from the seed companies were reported as higher margin, high yielding varieties and farmer satisfaction. The *Bt* cotton seed dealers faced major constraint *i.e.*, lack of awareness of use of seed by farmer followed by competition among dealers. It was also observed that highest market share *i.e.*, 54.17% was captured by Rasi seeds Pvt. Ltd. followed by Ankur seeds Pvt. Ltd. (49.17%), Western Agri seeds Ltd. (45.00%). The findings of study inferred that Rasi Seeds Pvt. Ltd. was ranked first in *Bt* cotton seed sold by the dealers followed by Ankur Seeds Pvt. Ltd., Western Agri Seeds Ltd., Akshay Seed Tech Company, and Utsav Seeds Pvt. Ltd. From the results it is suggested that companies should provide quality seed materials on time and in sufficient quantity at reasonable price. Companies should regularly review the margin as per market competitiveness. As well companies should invest more in research and development activities to develop new high yielding varieties. Companies in collaboration with government institutes (Research Station / SAUs) should provide better knowledge and awareness about uses of seed and improved farming techniques.

Keywords: Dealers, marketing, *Bt* cotton and seed companies

Introduction

Cotton is the most important commercial crop of our country contributing up to 75% of total raw material needs to textile industry and provides employment to about 60 million people. Area wise, India ranks first in the world, whereas it ranks second in production next to China. India has the largest area under cotton cultivation with relatively low productivity primarily due to the large area under rain-fed cultivation with inadequate supply of inputs. Only in India, all the four spinnable fiber yielding species of *Gossypium viz.*, *Gossypium hirsutum*, *G. barbadense*, *G. arboreum* and *G. herbaceum* are cultivated commercially. Cotton is popularly known as the "white gold" and "fiber king".

Bt cotton is a genetically modified cotton crop that expresses an insecticidal protein whose gene has been derived from a soil bacterium called *Bacillus thuringiensis*, commonly referred to as *Bt*. Many subspecies of *Bacillus thuringiensis* are found in soil and are in general known to be toxic to various genera of insects but safe to other living organisms. *Bt* was first discovered by a Japanese scientist, Ishiwata, in the year 1901. *Bt* has been used as an insecticide for control of stored grain pests since 1938 in France and from 1961 as a registered pesticide in the USA and later in many other countries, including India, as sprays in cotton IPM programs to control insects. *Bt* toxins thus have many decades of proven selective toxicity to insect pests and with an established safety record for non-target animals.

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In India, during 2020-21 production of cotton was 371.00 lakh bales cultivated under an area of 129.57 lakh hectares with a productivity of 487 kg per hectare (Cotton Corporation of India). According to 3rd advance estimate 2020-21, cotton cultivation in Gujarat was 22.51 lakh hectares cultivated under area with a productivity of 671.95 kg per hectare. In India, there are nine major cotton growing states, which fall under three zones viz. the North Zone (Punjab, Haryana and Rajasthan), the Central Zone (Maharashtra, Madhya Pradesh and Gujarat), and the Southern Zone (Andhra Pradesh, Karnataka and Tamil Nadu). Nearly 65% of the cotton crop is cultivated under rain fed conditions in the country. Nearly 2/3rd of the cotton production in India comes from the states of Maharashtra, Gujarat, Andhra Pradesh, and Telangana, collectively known as cotton basket of India.

Gujarat is India's largest cotton producer, accounting for about 28% of its total lint output. Within Gujarat, more than 70% of production comes from the Saurashtra region. In North Gujarat, major cotton producing districts are Banaskantha, Patan, Mehsana, Sabarkantha, Gandhinagar, Aravali and Ahmadabad. Banaskantha district was selected purposively for conducting the study, as Banaskantha district ranks 2nd in yield and production of cotton in north Gujarat. As well, Banaskantha district holds 4th position for the area in North Gujarat.

Materials and Methods

The present study aimed to analyses the dealers outlook and

marketing status of *Bt* cotton seed companies. As per the objective of the study, a purposive and multistage random sampling technique was adopted. At the first stage, four talukas, Deodar, Kankrej, Bhabhar and Deesa from the Banaskantha District were selected based on the highest area under *Bt* cotton cultivation. Hence, these four talukas were selected purposively for the study. Then five villages were selected from each selected taluka and six *Bt* cotton growers were selected from each selected village. Total 120 *Bt* cotton growers and 20 dealers were selected as sample respondents for the study.

The primary data were collected through personal interviews of *Bt* cotton growers by using a well-structured schedule. Secondary data were collected from published materials and websites. Tabular, frequency and percentage analysis technique were used for data analysis purposes.

Results and Discussion

1. Market share of different *Bt* cotton seed companies

Classification of major crops seeds availability in dealers' shop

The details of various crops seed available in dealers' shop are given in Table 1. Cotton seed has the highest availability (100.00%) in dealers' shops, followed by bajra seed availability (85.00%), cumin seed (80.00%), jowar seed (75.00%), castor and groundnut for crop seeds 70.00%, respectively. The lowest availability of seed crops was founded for mustard seed (65.00%)

Table 1: Classification of major crops seed available in dealers' shop (n=20)

Sr. No.	Crop seed	Frequency	Percentage
1.	Cotton	20	100.00
2.	Cumin	16	80.00
3.	Castor	14	70.00
4.	Mustard	13	65.00
5.	Bajra	17	85.00
6.	Jowar	15	75.00
7.	Groundnut	14	70.00

Different companies *Bt* cotton seeds available in dealers shop

Dealers are keeping various companies *Bt* cotton seed on their shops because of various reasons like farmers demand of particular brand of seed, price of seed and marketing margin associate with seed *etc.* Therefore, it is important to know that which companies seed dealers are keeping at their shop. The results related to availability of various companies *Bt* cotton seed are presented in Table 2.

Table 2: Distribution of dealer according to different companies *Bt* cotton seeds available in shop (n=20)

Sr. No.	Name of Company	Frequency	Percentage
1.	Utsav Seeds Pvt. Ltd.	10	50.00
2.	Rasi Seeds Pvt. Ltd.	14	70.00
3.	Akshay Seed Tech Company	13	65.00
4.	Western Agri Seeds Ltd.	16	80.00
5.	Ankur Seeds Pvt. Ltd.	18	90.00
6.	Others	14	70.00

The result revealed that the maximum dealers have Ankur Seeds Pvt. Ltd. company seed followed by Western Agri Seeds Ltd., Rasi Seeds Pvt. Ltd., Akshay Seed Tech Company, Utsav Seeds Pvt. Ltd. and other Ajit Seeds Pvt.

Ltd., Avani Seeds Pvt. Ltd., Buyer, Sagarlaxmi, Mahyco, Dantiwada Seeds Pvt. Ltd. *etc.*, *Bt* cotton seed companies. Moreover, these result showed that Ankur Seeds Pvt. Ltd. and Western Agri Seeds Ltd. companies have accounted major share in *Bt* cotton seed market.

Sales of different companies *Bt* cotton seeds by dealers

The previous section of this study displayed the information regarding the various companies *Bt* cotton seed available with dealers. The companies *Bt* cotton seed sold by the dealers in the Table 3. The findings of study inferred that Rasi Seeds Pvt. Ltd. was ranked first in *Bt* cotton seed sold by the dealers followed by Ankur Seeds Pvt. Ltd., and Western Seeds Ltd., Akshay Seed Tech Company and Utsav Seeds Pvt. Ltd. companies *Bt* cotton seed in the study area.

Table 3: Ranking of different companies based on highest *Bt* cotton seeds sold in selected markets (n=20)

Sr. No.	Name of Company	Rank
1.	Rasi Seeds Pvt. Ltd.	1 st
2.	Ankur Seeds Pvt. Ltd.	2 nd
3.	Western Agri Seeds Ltd.	3 th
4.	Akshay Seed Tech Company	4 th
5.	Utsav Seeds Pvt. Ltd.	5 th

Market share of *Bt* cotton seeds companies in selected markets

Market share is the % of total sales in market generated by a particular company. Market share of particular company determine its reputation and dominance in the market. Hence, this study targeted to examine the *Bt* cotton seeds market share of different companies in the selected market and results are presented in the Table 4.

Table 4: Distribution of *Bt* cotton growers according to various *Bt* cotton seed companies based on purchase (n=120)

Sr. No.	Name of Company	Frequency	Market Share (%)
1.	Utsav Seeds Pvt. Ltd.	18.00	15.00
2.	Rasi Seeds Pvt. Ltd.	27.00	22.50
3.	Akshay Seed Tech Company	19.00	15.83
4.	Western Agri Seeds Ltd.	20.00	16.67
5.	Ankur Seeds Pvt. Ltd.	24.00	20.00
6.	Others	12.00	10.00
Total		120.00	100.00

Bt cotton growers purchased different companies seeds. Number of sample of farmers purchased brand of seeds gives their particular company's current year market share. From the results of study it can be interpreted that 22.50% *Bt* cotton growers grow Rasi Seeds Pvt. Ltd. company followed by Ankur Seeds Pvt. Ltd. (20.00%), Western Agri Seeds Ltd. (16.67%), Akshay Seed Tech Company (15.83%), Utsav Seeds Pvt. Ltd. (15.00%) and others (10%) companies *Bt* cotton seed. The study revealed that *Bt* cotton growers mostly grown Rasi Seeds Pvt. Ltd. Company *Bt* cotton seed, may be because of ease in availability of seed and higher production.

Preference of another *Bt* cotton seed companies by farmer
Distribution of *Bt* cotton seed companies according to farmer preference are showed in the Table 5.

Table 5: Distribution of *Bt* cotton seed companies according to farmer preference (n=120)

Sr. No.	Name of Company	Frequency	Percentage
1.	Utsav Seeds Pvt. Ltd.	45.00	37.50
2.	Rasi Seeds Pvt. Ltd.	65.00	54.17
3.	Akshay Seed Tech Company	42.00	35.00
4.	Western Agri Seeds Ltd.	54.00	45.00
5.	Ankur Seeds Pvt. Ltd.	59.00	49.17
6.	Others	27.00	22.50

From the results of study it can be interpreted that 54.17% farmer preferred the *Bt* cotton seed of Rasi seeds Pvt. Ltd. followed by Ankur seeds Pvt. Ltd.(49.17%), Western Agri seeds Ltd. (45.00%), Utsav seeds Pvt. Ltd. (37.50%), Akshay seed Tech Company (35.00%) and 22.50% other companies like Avani seeds, Dantiwada, Mahyco, Buyer, Sagarlaxmi etc.

Source of *Bt* cotton seed purchased by *Bt* cotton growers

The purchase decision of farmers to purchase the seed is depending on the number of factors like proximity, quality, price, brand preference and discount given by the seller. *Bt* cotton growers' decision to purchase the improved seed is presented in Table 6. The result of study interpreted that 75.83% farmers purchased *Bt* cotton seed from Retailer shop followed by 15.83% co-operative society source, 7.50% from other sources like relatives etc. and very less 0.83% growers purchased from whole seller source. The highest proportion of

Bt cotton seed were purchased from Retailer shop may be because of easy of availability of *Bt* cotton seed in the proximity and may be credit given by retailers.

Table 6: Distribution of *Bt* cotton growers according to source from *Bt* cotton seeds purchased (n=120)

Sr. No.	Source	Frequency	Percentage
1.	Wholesaler shop	01	0.83
2.	Retailer shop	91	75.83
3.	Co-operative society	06	15.83
4.	Others-(farmers and relatives)	22	07.50
Total		120	100.00

2. Dealers outlook about *Bt* cotton seed companies in study area

Business experience of *Bt* cotton dealers

Business experience is an important socio-economic indicator. Business experience of the sample respondents of *Bt* cotton dealers' year wise are presented in the Table 7.

Table 7: Distribution of *Bt* cotton dealers according to their business experience (n=20)

Sr. No.	Business experience	Frequency	Percentage
1.	0 to 5 years	02	10.00
2.	5 to 10 years	04	20.00
3.	10 to 15 years	07	35.00
4.	15 to 20 years	04	20.00
5.	Above 20 years	03	15.00
Total		20	100.00

The *Bt* cotton dealers were categorized into five groups based on their business experience. Highest% (35.00%) of *Bt* cotton dealers were belong to 10 to 15 year category followed by 5 to 10 year and 15 to 20 year category (20.00%), above 20 year category (15.00%), only few of them belonged to below 5 year category (10.00%). This pattern of business experience showed that majority of *Bt* cotton dealers belonged to the 10 to 15 year business experience category.

Dealer association with various *Bt* cotton seed companies over the year

Dealer association with seed companies is also affect while, purchasing of seed material by the farmer. That means more supply by particular seed that time more benefit obtain to dealer and number of year spending also affect for achieving any business. Now a day more demand of seed that time more dealer enter for creating business as dealer for supplying *Bt* cotton seed. Dealer association with various *Bt* cotton seed companies over the year are presented in Table 8.

Table 8: Dealer association with various *Bt* cotton seed companies over the year (n=20)

Sr. No.	Dealer association	Frequency	Percentage
1.	<2 years	01	05.00
2.	2 to 5 years	05	25.00
3.	5 to 10 years	08	40.00
4.	10 to 15 years	04	20.00
5.	>15 years	02	10.00
Total		20	100.00

The result indicated that 40.00% *Bt* cotton dealer associated from 5 to 10 year that followed with 25.00% *Bt* cotton dealer associated from 2 to 5 year, 20.00% *Bt* cotton dealer

associated from 10 to 15 year, 5.00% *Bt* cotton dealer associated than less two year and only 10.00% *Bt* cotton dealer associated with more than 15-year *Bt* cotton dealer associated. This result showed that the emerging day to day new dealership with new seed companies.

Different brand wise dealer's margin in *Bt* cotton seeds marketing

The dealer's margin is an important factor that determines the dealer's preference of selling the seed of particular company. This study targeted to study the dealer's margin over the different brand of *Bt* cotton seed and results are presented in Table 9. The results revealed that dealers were getting 15.94%

margin on Utsav Seeds Pvt. Ltd., 15.71% on Rasi Seeds Pvt. Ltd., 14.08% on Western Agri Seeds Ltd., 13.89% on Akshay Seed Tech Company and 12.50% on Ankur Seeds Pvt. Ltd. Company's *Bt* cotton seed marketing.

Table 9: Dealer's margin across the different brands of *Bt* cotton seeds (n=20)

Sr. No.	Companies name	Margin (%)
1.	Utsav Seeds Pvt. Ltd.	15.94
2.	Rasi Seeds Pvt. Ltd.	15.71
3.	Akshay Seed Tech Company	13.89
4.	Western Agri Seeds Ltd.	14.08
5.	Ankur Seeds Pvt. Ltd.	12.50

Dealer's rating for *Bt* cotton seeds on various parameters

Table 10: Dealer's rating for *Bt* cotton seeds on various parameters (n=20)

Rating parameter	Always (5)	Mostly (4)	Often (3)	Rarely (2)	Never (1)	Cumulative Score	Rank
Quality	5(25)	8(32)	4(12)	1(02)	0(0)	71	1
Brand image	4(20)	8(32)	3(09)	1(02)	0(0)	63	2
Demand	3(15)	8(32)	4(12)	0(0)	0(0)	59	3
Price	2(10)	8(32)	4(12)	0(0)	0(0)	54	4
Time availability	4(20)	4(16)	2(06)	0(0)	0(0)	42	5
Promotional scheme	2(10)	2(08)	3(09)	5(10)	0(0)	37	6
Credit policy	4(20)	2(08)	2(06)	0(0)	0(0)	34	7

(Note: Always-5, Mostly-4, Otten-3, Rarely-2, Never-1)

The above table indicates that Quality(1st) was first most important factor while farmer purchasing *Bt* Cotton, Brand image (2nd), Demand (3rd), Price (4th), Promotional scheme(5th), Time availability (6th), Credit policy (7th) and others were given different rating for *Bt* cotton seeds. The results showed that quality like fiber fineness, fiber strength *etc.* provides more returns at the time of marketing of economic product. Brand Image also play significant role for believiness regarding trusted *Bt* cotton seed.

Expectations of dealers from company

The expectation of *Bt* cotton growers from company was presented in below Table 11. Increasing margin ranked first which show that the dealers also expect more margin from company and more profit in business and high yield variety ranked second which shows that the dealers also expect new hybrid highest production varieties from seed company to increase yield and increase farmers output followed by farmer satisfaction ranked third which shows *Bt* cotton growers satisfied with product.

Table 11: Expectations of dealers from seed companies (n=20)

Sr. No.	Expectations	Garrett's Score	Rank
1.	Increasing margin	54.80	I
2.	High yield variety	54.60	II
3.	Farmer satisfaction	49.05	III
4.	Easily and timely availability of seed	46.75	IV
5.	Bonus	45.60	V

Fourth ranked was easily and timely availability of *Bt* cotton seed because at the time of cultivation season the *Bt* cotton seed should available within this time period and last fifth ranked was bonus like tour and gifts from company.

Conclusion

Based on the finding of the present study, it can be concluded

that companies should provide quality seed materials on time and in sufficient quantity at reasonable price. As well companies should regularly review the margin as per market competitiveness and should invest more in research and development activities to develop new high yielding varieties. Companies in collaboration with Government institutes and agriculture universities should provide the better knowledge and awareness for the farmers about the use of seeds and improved farming techniques.

References

1. Beakatti TR. Marketing of cotton seeds. A market Strategy analysis, MBA (Agribusiness) Thesis. University of Agriculture Science Dharwad; c2007.
2. Ghaghod VR. Dealers Marketing Strategy for Groundnut Seeds in Banaskantha district of Gujarat. MBA (ABM) Thesis (Unpublished). College of Agribusiness Management, S.K., Nagar. 2014.
3. Jayasree S, Sivaramane N, Radhika P, Supriya K. Marketing Strategies of Leading Cotton Seed Companies in Telangana State. Marketing. 2020;38(11):226-232.
4. Kulkarni K, Seema ZS, Jadhav M. Market structure of cotton seed in Nanded district of Maharashtra. International Journal of Commerce and Business Management. 2017;10(2):112-115.
5. Kumar S, Samsai T, Praveena S. Brand preference of farmers and dealers towards *Bt* cotton hybrid seeds in Guntur district of Andhra Pradesh. International Journal of Commerce and Business Management. 2017;10(2):83-88.
6. Mane, Hiremath MM. A study on economic preference of seed marketing of Groundnut varieties grown in Parbhani district in Maharashtra. Indian Journal of Marketing. 1995;9(7):35-42.
7. Nidhanam. Dealers Marketing Strategies for Groundnut Seed in Sabarkantha of Gujarat. MBA (ABM) Thesis.

- College of Agribusiness Management, S.K., Nagar. 2019.
8. Saraf S. Farmers Purchase Preference for Cotton Seeds in Rajasthan-A Case Study Sri Ganganagar District. Doctoral dissertation, University of Agricultural Sciences, Gandhi Krishi Vignana Kendra, Bengaluru, Karnataka. 8(11): 53-59.