Original Research Article

SOWING TIME AND SPACING INFLUENCED YIELD, QUALITY AND ECONOMICS OF BT COTTON (*Gossypium hirsutum* L.)

ABSTRACT

A field study was conducted in the 2019 *kharif* season at the Agronomy Instructional Farm, SDAU, SKNagar, Gujarat, India. To investigate that the sowing time and spacing influenced yield, quality and economics of Bt cotton (*Gossypium hirsutum* L.) in loamy sand soil. Twelve treatment combinations were examined, involving three sowing times (T_1: 3rd week of May, T_2: 1st week of June, T_3: 3rd week of June) and four plant spacings (S_1: 90 cm × 60 cm, S_2: 90 cm × 45 cm, S_3: 60 cm × 60 cm, S_4: 60 cm × 45 cm). Four replications of a split plot design were used for the experiment. The third week of May was consistently the best time to sow cotton, according to the results, producing the maximum yields of seed cotton and stalk cotton. The quantity of monopodial branches/plant, harvest index and plant population as well as quality parameters such as oil content and ginning percentage were not significantly impacted by sowing time. The 3rd week of May sowing also yielded the highest benefit cost ratio and net realization. In terms of plant spacing, the spacing of 60 cm × 45 cm promoted highest plant population, taller plants and increased yield attributes like the bolls/plant, boll weight and seed cotton yield/plant. The highest seed cotton yield and stalk yield were achieved with this spacing. Harvest index and quality parameters were unaffected by plant spacing. The narrow spacing of 60 cm × 45 cm also resulted in the highest benefit cost ratio and net realization. The interaction effect between sowing time and plant spacing did not significantly influence growth, yield, yield attributes and quality parameters of Bt cotton.

Keyword: Bt cotton, Economics, Plant spacing, Quality parameters, Sowing time, Yield parameters.

Introduction

Cotton is a significant cash crop in India and is frequently referred to as "White Gold" because it originated in Mexico and gets its name from the Arabic word "Quntun." Its seeds are a significant source of edible oil and fiber. Cotton cultivation has been practiced in India for more than 2000 years. The nation is unique in that it commercially cultivates all four *Gossypium* species. India's cotton sector is hugely important and has a significant economic impact. It is frequently referred to as the "King of the Fiber" and provides work for millions of people through trade, processing and farming. The cotton-related textile industry in India is extremely important, producing 7% of industry output, 2% of GDP, 15% of export revenues and employing nearly 45 million people (Anonymous, 2017-18). Since its introduction in 2002, Bt cotton that expresses an insecticidal protein from *Bacillus thuringiensis* has transformed cotton production in India. It boosted cotton production, considerably decreased the demand for chemical pesticides and was well-liked by farmers. Around the world, cotton is grown in 77 different nations, with the United States, China and India providing 80% of the crop. India ranks first in terms of area and is the second-largest producer of cotton in the world, both of which are crucial

to the local economy. Some of the top cotton-producing states in India include Gujarat, Maharashtra, Haryana, Punjab, Madhya Pradesh, Andhra Pradesh, Karnataka, Telangana, and Tamil Nadu. In conclusion, cotton is an important agricultural and industrial product in India, with a long history and major contributions to the economy and employment of the country. The introduction of Bt cotton has revolutionized cotton cultivation by increasing yields and minimizing its negative environmental effects. The use of high-yielding hybrids and enhanced agricultural practices can increase crop production potential, with planting time being a key consideration. Traditional cotton types planted in the late spring or summer frequently have severe bollworm infestations. Early cotton planting increases cotton output and fiber quality and with the right pest control practices, sucking pest protection can be attained. The bollworm issue has been effectively solved with transgenic cotton. Early cotton planting has various benefits over late planting, including a 10% increase in flower production, a 23% increase in open bolls and an 18% increase in seed yield (Arshad *et al*., 2007). Early planting encourages vegetative development, but late planting, when temperatures drop too low, increases flowering and boll production, decreasing cotton yields (Khan *et al*., 2017). Due to higher photosynthate buildup and prolonged boll development time, early planting also results in bigger boll size (Patel *et al*., 2015). The phenological development, biomass conversion and financial returns of cotton plants are all considerably impacted by the timing of planting (Kaur *et al*., 2019). Compared to late planting, which may cause poor crop stand and decreased yield potential, timely planting offers ideal conditions, such as adequate sun radiation, for higher biomass output. Considerations such as soil fertility, environment, genotype, planting time and season should all be taken into account when determining the plant population per unit area. By regulating light absorption, root patterning and moisture extraction, proper spacing affects crop output. High-density planting systems (HDPS), which offer greater productivity, profitability, efficiency, lower input costs and decreased risks, especially in rainfed situations, are becoming a more popular alternative production method in India. On some soil types, HDPS has been demonstrated to offer 25–30% better yields than suggested spacing (Venugopalan *et al*., 2014). An established agronomic approach for increasing production and profitability is manipulating plant density and spacing (Hiwale*et al*., 2018). A faster canopy closure, less soil water evaporation and less weed competition result from increasing plant density, which also improves sunlight, water and nutrient intake. These effects help address the issues associated with water scarcity. While broader spacing could promote the growth of weeds, excessively close spacing might impede proper root and plant development, reducing production. Considering the aforementioned characteristics, a field study titled "Sowing time and spacing influenced yield, quality and economics of bt cotton (*Gossypium hirsutum* L.)" with objective to study find out optimum sowing time and spacing for growth, yield, quality and economics of Bt cotton.

Material and methods

The field experiment was conducted in 2019's *kharif* season at the Agronomy Instructional Farm, SDAU, Sardarkrushinagar. In addition to having a loamy sand texture, the soil in the experimental plot also exhibited low levels of accessible N (156.9 kg/ha), medium levels of P_2O_5 (38.6 kg/ha), high levels of K_2O (254.3 kg/ha), and low levels of organic carbon (0.18%). Its pH was also somewhat alkaline at 7.6.

There were twelve treatment combinations comprising of three sowing times *i.e.*T_1: 3rd week of May, T_2: 1st week of June and T_3: 3rd week of June and four spacings *i.e.* S_1: 90 cm × 60

cm (18,518 plants/ha), S_2: 90 cm × 45 cm (24,691 plants/ha), S_3: 60 cm × 60 cm (27,777 plants/ha) and S_4: 60 cm × 45 cm (37,037 plants/ha) were tested in a split plot design with four replications.Growth information, such as plant population/ha, plant height and the number of monopodial and sympodial branches/plant, were measured at regular intervals. The number of bolls per plant, average boll weight, seed cotton yield per plant, seed cotton and stalk yield and harvest index were all measured during harvest. After harvest, quality measurements, including the ginning percentage and oil content, were taken. During the crop period, agronomic practices are applied in a timely manner and in accordance with requirements. A random sample technique was applied throughout the experiment to record observations. A composite soil sample's condition was evaluated prior to seeding. According to the split plot design, the experimental data was statistically evaluated using the analysis of variance method (Cochran and Cox, 1957). At a 5% level of significance, the calculated value of "F" was compared to the value of table "F". The benefit cost ratio (BCR) was determined using the methodology below.

$$\text{BCR}=\frac{\text{Gross realization (₹ /ha)}}{\text{Total cost of cultivation (₹ /ha)}}$$

Results and discussion

Effect of sowing time

There was no obvious difference in plant population/ha between 30 DAS and harvest due to the different planting dates. The different sowing times of Bt cotton considerably affected the plant height (cm), with the highest plant heights being recorded at 60, 90 and 120 DAS and at the last picking, respectively, when the crop was planted during the third week of May. Due to different seeding timings, no discernible impact on the quantity of monopodial branches/plants was discovered. The sowing of Bt cotton during the third week of May has greatly enhanced the number of sympodial branches/plants at the time of the last cotton picking time. The number of bolls per plant, average boll weight and seed cotton output per plant were all significantly higher when planting took place in the third week of May. The third week of May was the least important sowing period to record the maximum seed cotton yield and stalk yield. Different sowing times had a major impact on the seed cotton and stalk yield of Bt cotton. During the course of the experiment, it was determined that the impact of different sowing periods on the harvest index (%) was not significant. There was no discernible impact of planting time on quality criteria like ginning percentage and oil content (%). The sowing time of the third week of May resulted in the highest gross realization, net realization and BCR, while the sowing time of the third week of June resulted in the lowest gross realization, net realization and BCR. The early planted crop's higher values of all yield-attributing features, such as the number of sympodial branches/plant, the number of bolls/plant and the average boll weight, exhibited a positive link with seed cotton output per plant and per hectare. This could explain why there is more seed cotton produced per hectare and plant. By being sown early in the season, cotton can develop its canopy earlier and absorb more sunlight for photosynthesis and growth. A crop that was sowed early began its reproductive growth earlier, developed more bolls and yielded more as a result. Because of the crop's shorter overall crop lifetime, the reproductive process may have been significantly influenced, which might also account for the reduced yield from late sowing. The seed cotton yield may also be impacted by early-crop boll retention that is higher and late-crop floral structure loss. These outcomes are very consistent with those of Arshad *et al.* (2007), Ali *et*

al. (2009), Hallikeri *et al.* (2009), Kumar *et al.* (2014), Wahab *et al.* (2014), Patel *et al.* (2015), Khan *et al.* (2017), Kaur *et al*. (2019) and Singh *et al.* (2019).

Effect of spacing

The maximum plant population for Bt cotton at 30 DAS and harvest was notably found at a plant spacing of 60 cm × 45 cm. Bt cotton was sown with a close spacing of 60 cm × 45 cm, which resulted in plants that were noticeably taller at 60, 90, 120 DAS and at last picking time. Due to different plant spacings, no discernible effect on the no. monopodial branches/plant was discovered. However, with a spacing of 90 cm × 60 cm, the highest no. of sympodial branches/plant was observed.With sowing of Bt cotton at plant spacing of 90 cm × 60 cm, higher values of the yield features of Bt cotton, such as number of bolls/plant, average boll weight and seed cotton yield/plant, were recorded. With an increase in plant density, the yield of stalk and seed cotton increased dramatically. With a small spacing of 60 cm × 45 cm, seed cotton output and stalk yield were found to be significantly the highest. During the course of the experiment, In terms of harvest index, it was found that there was no discernible difference in plant spacings. Due to different plant spacings, quality measures including ginning percentage and oil content were determined to be non-significant. Under spacing of 60 cm × 45 cm, higher values of gross realization, net realization and BCR were attained. While spacing of 90 cm × 60 cm yielded the lowest gross realization, net realization and BCR. The culmination of yield-contributing traits is the seed cotton yield. Different plant populations had a big impact on these yield-attributing traits. Wider spacing increased per-plant yields, but because it was unable to offset the drop in plants per hectare, the overall seed cotton yield was lower than that of populations of plants that were closer together. More bolls per unit area may account for higher yields at closer spacing. According to similar findings, larger plant densities produce more seed cotton than lower densities, as reported by Aruna and Reddy (2009), Biradar *et al*. (2010), Manjunatha *et al.* (2010), Devraj *et al.* (2011), Shukla *et al*. (2013), Malavath *et al*. (2014), Basavaraj *et al*. (2017), Charjan *et al*. (2017), Kumar *et al*. (2017), Madavi *et al*. (2017), Nagender *et al*. (2017), Udikeri and Shashidhara (2017), Hargilas and Saini (2018), Hiwale *et al*. (2018) and Malavth *et al*. (2018).

Interaction effect

On growth, yield characteristics and quality criteria, no appreciable interaction between sowing time and spacing was found to affect any of these variables. Under treatment combination T_1S_4 (sowing during the third week of May with spacing of 60 cm × 45 cm), the maximum gross, net realization and BCR were attained. While the treatment combination T_3S_1 had the lowest gross realization, net realization and BCR (sowing in the third week of June with a spacing of 90 cm × 60 cm).

Conclusion

In light of the investigation's findings, it is concluded that the crop should be planted in the third week of May as well as when narrow spacing of 60 cm × 45 cm in the loamy sand of North Gujarat in order to obtain higher crop growth, seed yield, net realization and benefit cost ratio from Bt cotton [*var*. GTHH 49 (BG II)].

References

Ali, H.; Muhammad, N.A.; Shakeel, A. and Muhammad, D. (2009). Effect of cultivars and sowing dates on yield and quality of *Gossypium hirsutum* L. crop. *Journal of Food, Agriculture & Environment,* **7**(3): 244-247.

Anonymous (2017-18). Annual report, Ministry of Textiles, Government of India.

Arshad, M.; Wajid, A.; Maqsood, M. and Hussain, K. (2007). Response of growth, yield and quality of different cotton cultivars to sowing dates. *Pakistan Journal of Agricultural Sciences,* **44**(2): 208-212.

Aruna, E. and Reddy, B.S. (2009). Response of Bt cotton to plant geometry and nutrient combinations. *Indian Journal of Agricultural Research,* **43**(3): 206-210.

Basavaraj; Chittapur, B.M.; Halepyati, A.S.; Ameregouda, A.; Yadahalli, G.S. and Ajay, M.Y. (2017). Growth and yield of irrigated Bt cotton (*Gossypium hirsutum* L.) as influenced by different agronomic practices. *International Journal of Current Microbiology and Applied Sciences,* **6**(12): 45-52.

Biradar, V.; Rao, S. and Hosamani, V. (2010). Yield and quality of late sown Bt cotton as influenced by different plant spacings, fertilizer levels and NAA applications under irrigation. *International Journal of Agricultural Sciences,* **6**(1): 152-156.

Charjan, Y.D.; Ramteke, N.H.; Deokar, V.P. and Wankhade, S.R. (2017). Effect of high density planting system on yield and yield attributing character of promising cotton genotypes. *Abhinav National Monthly Referred Journal of Research in Science &Technology,* **6**(5): 1-4.

Cochran, W.G. and Cox, G.M. (1967). Experimental Designs, John Willey and Sons Inc., New York. pp. 546-568.

Devraj; Bhattoo, M.S.; Duhan, B.S.; Kumari, P. and Jain, P.P. (2011). Effect of crop geometry and fertilizer levels on seed cotton yield and nutrient uptake of Bt cotton under irrigated conditions.*Journal of Cotton Research and Development,* **25**(2): 176-180.

Hallikeri, S.S.; Halemani, H.L.; Patil, V.C.; Palled, Y.B.; Patil, B.C. and Katageri, I.S. (2009). Influence of sowing time and moisture regimes on growth, seed cotton yield and fibre quality of Bt cotton. *Karnataka Journal of Agricultural Science,* **22**(5): 985-991.

Hargilas and Saini, D.P. (2018). Performance of Bt cotton hybrids under varying plant spacings and nutrient levels.*Journal of Cotton Research and Development,* **32**(1): 106-111.

Hiwale, S.D.; Khargakharate, V.K.; Patil, S.S. and Nichal, A.D. (2018). Effect of hirsutum cotton to high plant density and fertilizer doses on yield and nutrient uptake under rainfed condition. *International Journal of Current Microbiology and Applied Sciences,* (6): 2653-2658.

Kaur, V.; Mishra, S.; Singh, K.; Gill, K.K. and Pal, R.K. (2019). Performance of Bt and non Bt cotton cultivars under different sowing environment of south western Punjab. *Journal of Cotton Research and Development,* **33**(1): 93-98.

Khan, A.; Ullah, N.; Wang, L.; Daniel, K.Y.T.; Yang, G.; Fazal, M.; Ali, S. and Hafeez, A. (2017). Planting density and sowing date strongly influence growth and lint yield of cotton crops. *Field Crop Research,* **209**: 129-135.

Khan, N.;Ullah, N.;Ullah, I. and Shah, A.I. (2017). Yield and yield contributing traits of cotton genotypes as affected by sowing dates. *Sarhad Journal of Agriculture,* **33**(3): 406-411.

Kumar, P.; Karle, A.S.; Singh, D. and Verma, L. (2017). Effect of high density planting and varieties on yield, economics and quality of desi cotton. *International Journal of Current Microbiology and Applied Sciences,* **6**(3): 233-238.

Kumar, R.; Bhattoo, M.S.; Punia, S.S.; Bhusal, N. and Yadav, S. (2014). Performance of different Bt cotton hybrids under varying dates of sowing. *Journal of Cotton Research and Development,* **28**(2): 263-264.

Madavi, B.; Rani, P.L.; Sreenivas, G. and Srekha, K. (2017). Effect of high density planting and weed management practices on productivity and economic analysis of Bt cotton. *International Journal of Current Microbiology and Applied Sciences*, **6**(7): 2225-2230.

Malavath, R.; Naik, R.; Pradeep, T.; Chauhan, S. and Shankar, M. (2014). Effect of Bt cotton hybrids for different spacings under rainfed condition in black cotton soils of Adilabad district of Andhra Pradesh. *Agrotechnol,* **2**(4): 272.

Malavath, R.; Naik, R.; Pradeep, T. and Chauhan, S. (2018). Effect of closer spacing in Bt cotton hybrids under rainfed conditions in red chalka soils of Adilabad district of Telangana. *Advance Research Journal of Crop Improvement,* **9**(1): 1-4.

Manjunatha, M.J.; Halepyati, A.S.; Koppalkar, B.G. and Pujari, B.T. (2010). Yield and yield components, uptake of nutrients, quality parameters and economics of Bt cotton (*Gossypium hirsutum* L.) genotypes as influenced by different plant densities. *Karnataka Journal of Agricultural Science,* **23**(3): 423-425.

Nagender, T.; Reddy, D.R.; Rani, P.L.; Sreenivas, G.; Surekha, K.; Gupta, A. and Sreekanth, P.D. (2017). Productivity of Bt and non Bt cotton cultivars as influenced by plant geometry and fertilizer levels. *International Journal of Current Microbiology and Applied Sciences*, **6**(9): 3208-3217.

Patel, P.; Patel, J.C.; Mehta, R.S. and Vyas, K.G. (2015). Response of Bt and non Bt cotton (*Gossypium hirsutum* L.) hybrids to varying sowing time. *Journal of Cotton Research and Development*, **29**(2): 273-276.

Shukla, U.N.; Khakare, M.S.; Srivastava, V.K.; Kumar, R.; Singh, S.; Kumar, V. and Kumar, K. (2013). Effect of spacing and fertility levels on growth, yield and quality of cotton (*Gossypium hirsutum* L.) hybrids under rainfed condition of Vidarbha. *International Quarterly Journal of Life Sciences,* **8**(2): 561-567

Singh, K.; Singh, H.P. and Mishra, S.K. (2019). Irrigation module and sowing date affect seed cotton yield, quality, productivity indices and economics of cotton in north-western India. *Communication in Soil Science and Plant Analysis,* **13**(3): 148-151

Udikeri, M. and Shashidhara, G.B. (2017). Performance of compact cotton genotypes under high density planting system at different fertilizer levels. *Journal of Farm Science,* **30**(4): 460-466.

Venugopalan, M.V.; Kranthi, K.R.; Blaise, D.; Lakde, S. and Shankaranarayanan, K. (2014). High density planting system in cotton. *Cotton Research Journal,* **5**(2): 172-185.

Wahab, A.S.; Panhwar, F.H.; Razzaque, A.; Ahsan, M.Z.; Muhammad, S.M.; Khaskheli, F.I. and Sial, K.B. (2014). Effects of sowing time on yield, GOT and fibre traits of upland cotton. *International Journal of Scientific & Engineering Research,* **5**(12): 194-198.

Table 1 : Effect of sowing time and spacing on growth and yield attributes

Treatments	Plant population/ha		Plant height (cm)				Number of monopodial branches/ plant	Number of sympodial branches/ plant	Number of bolls/plant	Average boll weight (g)	Seed cotton yield (g)/plant
	30 DAS	At harvest	60 DAS	90 DAS	120 DAS	At last picking					
Main plot : Sowing time (T)											
T_1 : 3rd week of May	26186	25608	**81.0**	**99.9**	**122.8**	**127.6**	**3.26**	**24.3**	**40.6**	**3.43**	**137.7**
T_2 : 1st week of June	25993	25415	66.0	84.0	107.5	112.0	3.22	20.3	37.7	3.05	111.2
T_3 : 3rd week of June	25752	25174	57.1	71.9	88.0	93.1	3.13	18.0	35.4	2.95	99.7
S. Em. ±	366	395	1.34	1.83	2.82	2.81	0.09	0.49	0.74	0.09	2.77
C.D. at 5%	NS	NS	4.63	6.35	9.77	9.72	NS	1.70	2.55	0.31	9.60
C.V. %	5.64	6.22	7.87	8.60	10.64	10.13	11.45	9.43	7.78	11.26	9.55
Sub plot : Spacing (S)											
S_1 : 90 cm × 60 cm	17940	17554	64.2	79.1	99.1	103.0	3.25	**22.4**	**41.4**	**3.45**	**141.2**
S_2 : 90 cm × 45 cm	24113	23341	66.3	82.2	103.9	108.9	3.23	21.2	39.7	3.11	121.0
S_3 : 60 cm × 60 cm	26942	26170	68.9	87.2	106.6	111.6	3.20	20.3	35.9	3.06	105.9
S_4 : 60 cm × 45 cm	**34915**	**34529**	**72.7**	**92.6**	**114.9**	**120.1**	3.15	19.4	34.5	2.95	96.6
S. Em. ±	318	365	0.91	1.37	1.77	2.09	0.08	0.36	0.53	0.09	2.21
C.D. at 5%	921	1058	2.65	3.97	5.15	6.08	NS	1.04	1.52	0.25	6.40
Interaction (T × S)											
S. Em. ±	550	632	1.58	2.37	3.07	3.63	0.15	0.62	0.91	0.15	3.82
C.D. at 5%	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
C.V. %	4.23	4.97	4.64	5.55	5.79	6.54	9.05	5.94	4.80	9.56	6.58

Table 2 : Effect of sowing time and spacing on yield, quality and economics of Bt cotton

Treatments	Seed cotton yield (kg/ha)	Stalk yield(kg/ha)	Harvest index (%)	Oil content (%)	Ginning percentage	Cost of cultivation (A+B+C) (₹ /ha)	Gross realization (₹ /ha)	Net realization (₹ /ha)	Benefit cost ratio
Main plot: Sowing time (T)									
T_1 : 3rd week of May	**3264**	**4970**	39.6	16.6	37.4	**78773**	**141379**	**62606**	**1.79**
T_2 : 1st week of June	2568	3970	39.3	16.5	37.2	69449	111261	41812	1.59
T_3 : 3rd week of June	2319	3540	39.8	16.4	36.9	66119	100441	34322	1.51
S. Em. ±	82	120	1.05	0.17	0.55	-	-	-	-
C.D. at 5%	283	415	NS	NS	NS	-	-	-	-
C.V. %	12.05	11.52	10.62	4.23	5.93	-	-	-	-
Sub plot: Spacing (S)									
S_1 : 90 cm × 60 cm	2214	3357	40.1	16.3	37.0	66003	95891	29888	1.45
S_2 : 90 cm × 45 cm	2653	4102	39.3	16.5	37.1	70258	114935	44677	1.62
S_3 : 60 cm × 60 cm	2750	4272	39.2	16.6	37.3	71747	119162	47414	1.65
S_4 : 60 cm × 45 cm	**3251**	**4908**	39.8	16.7	37.3	**77780**	**140789**	**63008**	**1.80**
S. Em. ±	52	76	0.49	0.15	0.34	-	-	-	-
C.D. at 5%	152	221	NS	NS	NS	-	-	-	-
Interaction (T × S)									
S. Em. ±	91	132	0.84	0.25	0.59	-	-	-	-
C.D. at 5%	NS	NS	NS	NS	NS	-	-	-	-
C.V. %	6.69	6.35	4.27	3.07	3.16	-	-	-	-

Table 3 : Economics of different treatment combinations

Treatment combinations	Seed cotton yield (kg/ha)	Stalk yield (kg/ha)	Cost of cultivation (A+B+C) (₹ /ha)	Gross realization (₹ /ha)	Net realization (₹ /ha)	Benefit cost ratio
T_1 : T_1S_1	2659	4099	73329	115209	41880	1.57
T_2 : T_1S_2	3261	5071	77584	141299	63715	1.82
T_3 : T_1S_3	3357	5139	79073	145417	66344	1.84
T_4 : T_1S_4	**3779**	**5571**	**85106**	**163592**	**78486**	**1.92**
T_5 : T_2S_1	2085	3168	64005	90310	26305	1.41
T_6 : T_2S_2	2480	3841	68260	107460	39200	1.57
T_7 : T_2S_3	2595	4101	69749	112484	42734	1.61
T_8 : T_2S_4	3112	4771	75782	134792	59010	1.78
T_9 : T_3S_1	1898	2803	60675	82153	21478	1.35
T_{10} : T_3S_2	2217	3396	64930	96046	31116	1.48
T_{11} : T_3S_3	2298	3577	66419	99584	33165	1.50
T_{12} : T_3S_4	2862	4383	72452	123982	51529	1.71

Selling price : Seed cotton ₹ 42.55/kg, Stalk ₹ 0.5/kg