



SUCCESS STORY ON GUJARAT CUMIN 4 (GC 4)



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SUCCESS STORY

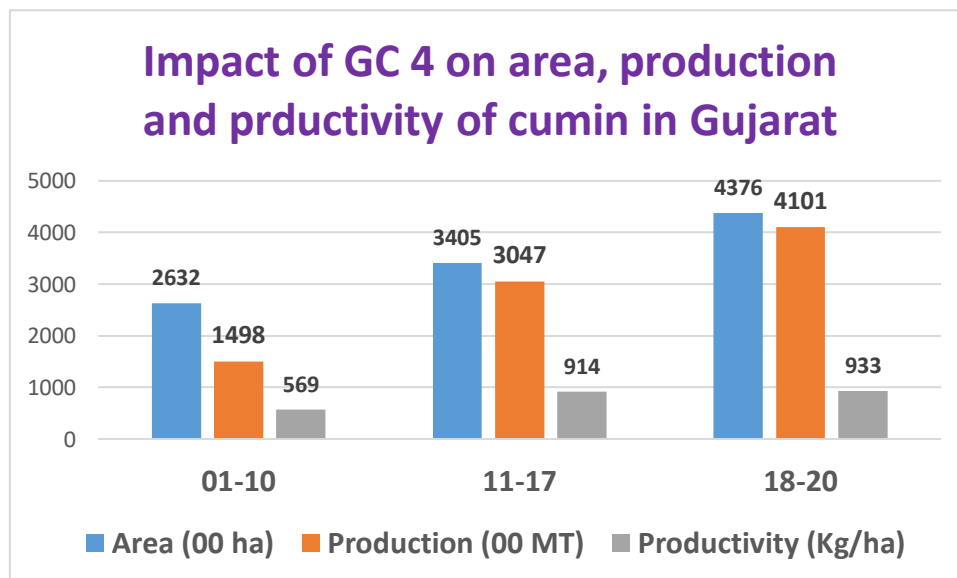
IMPACT ASSESSMENT OF GC 4

Significant impact of development of Gujarat cumin 4 (GC 4) is realized in state economy, income enhancement of the farmers, area production productivity hiking and export promotion as under.

1. SIGNIFICANT INCREASE IN AREA, PRODUCTION AND PRODUCTIVITY

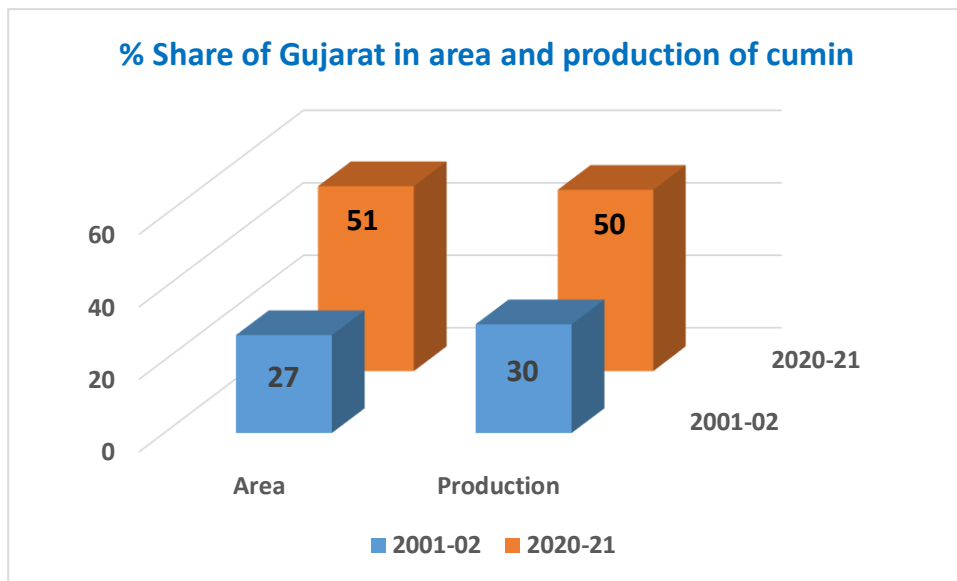
The area, production and productivity of cumin in Gujarat have increased to 331 %, 700 % and 216 %, respectively by the year 2020-21 as compare with 2001-02. Thus the investment made in seed spice research has been repaid through increased productivity and production. The Seed Spices Research Station, Jagudan has released Gujarat cumin 4 (GC 4) in 2006 at National level for cultivation under different production conditions in Gujarat and other states, in addition to thistechnologies on crop production and crop protection in cumin has been developed resulting into reduction in production cost, conservation of natural resource and productivity increase.

First wilt tolerant cumin variety GC 4 released at National level during 2006 spread like a fire and covered about 90 and 60 per cent area under cumin in Gujarat and Rajasthan, respectively, after release of GC 4 variety, significant increase in the area, production and productivity is realized at National level.



2. INCREASE IN SHARE TOWARDS NATIONAL AREA AND PRODUCTION

The share of Gujarat in cumin area and production of the country was 27 and 30 per cent during 2001-02. It increased to 51 and 50 per cent during 2020-21.

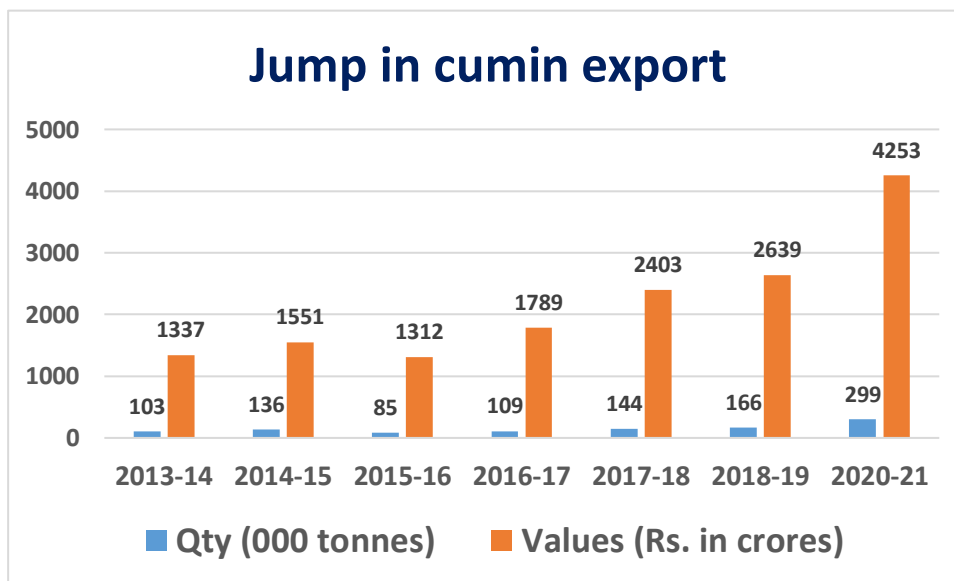
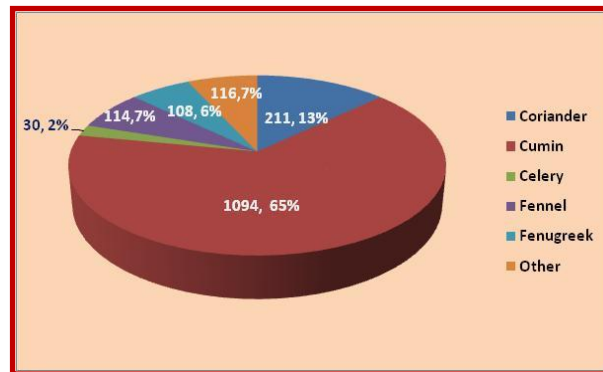


About 95 % of cumin area is sown to HYV of which 90 % is covered by the cumin variety Gujarat Cumin 4 (GC 4) in the country.



3. EXPORT PROMOTION AND IMPORT DEMOTION

Quantum jump in the export of seed spices in general and cumin-fennel in particular is recorded during last decade is a result of increase in production and thereby more surplus for export. The export of cumin jumped from 59.0 crores (2003-04) to 1093 crores (2012-13). Similarly, fennel export increased from 16 crores (2001-02) to 114 crores (2012-13). Both these crops have played important role in valuable foreign exchange earnings. On the other hand, the import of cumin reduced from 18.5 crores (2007-08) to 1.6 crores (2012-13) and saved foreign exchange. (Fig.)



4. ADDITIONAL PRODUCTION AND INCOME GENERATION FOR COUNTRY

Year	Area (Ha)	Production (MT)	Productivity (Kg/ha)	Price	Increase in Income
2003 (GC-4 developed)	2,01,000	64300	320		
2020	4,69,000	4,29,000	915		
		+ 3,64,700 MT additional production		@3000/- 20 kg	547 crores

INCOME ENHANCEMENT THROUGH SEED PRODUCTION OF GC 4

Mr. Devrajbhai Amthabhai Patel, resident of village *Varsada*, Taluka Kankrej, Dist. Banaskantha is holding 25 acres of land. Kankrej is one of the backward Talukas of Banaskantha district. The traditional cropping pattern of Mr. Patel was mustard, cotton, castor and cumin before 2004. In spite of very high potential land he was earning only about Rs. 3.0 lakhs from cultivation of these crops annually due to traditional method of cultivation and use of either local or very old varieties. In order to demonstrate the technologies of cumin through the field demonstrations of released variety Gujarat Cumin 4 was conducted in this area under All India Coordinated Research Project on Spices by CRSS, Jagudan during every years. Very encouraging results obtained in these demonstrations. This has motivated Mr. Patel to expand the area of cumin. The others farmers of this village and neighboring villages also started sowing GC 4 variety and now it has become highly popular and major source of income as well as profit of the farmers. Inspiring from the trainings organized by SSRS, Jagudan Mr. Patel started seed productions Gujarat Cumin 4 variety. Last year he produced about 5000 kg of truthful seeds of GC 4 and distributed among farmers of this area and surrounding belts also. His farm income is increased from Rs. 3.0 to 20.0 lakhs by varietal adoption and seed production programme. Every year , he is producing the large quantity of quality seeds of GC 4. For large scale seed multiplication of GC 4, he was honored with shawl and Sanman patra by S. D. Agril. University in gracious presence of Her Excellency Hon. Governor of Gujarat Smt. Kamala Beniwal.



GOCHNAD – A FIRST CUMIN SEED VILLAGE OF THE COUNTRY

Gochnad village of Radhanpur taluka and Patan district is a traditionally cumin-growing village where cumin is grown in about 300 ha mainly under conserved moisture conditions. The yield potential is higher than rest of the areas. However, the farmers were growing local/Gujarat Cumin – 2 varieties with traditional system of farming till 2007.



Gochnad village was adopted by SSRS, Jagudan as a cumin seed village during 2008 to demonstrate GAP of cumin to enhance production and productivity of cumin.

They were also motivated and trained to divert them from general production to seed production. They were trained for production of quality seed practically in the village itself continuously. Initially only 12 farmers under the leadership of Mr. Devanbhai Bhagvanbhai Chaudhary came forward to take seed production programme. The breeder seed was supplied to them from SSRS, Jagudan and they produced 18243 kg of truthful seeds. Looking to their interest, they were motivated to form a Farmers' Club for seed production of cumin (GC 4). With the help and efforts of SSRS, Jagudan and some NGOs the first farmers' club of cumin seed producing farmers namely '*Shree Mahashakti Farmer Club*' was registered under the chairmanship of Mr. Devanbhai Bhagvanbhai Chaudhary with 12 members on 03-08-2009 through NABARD with registration No.UIC.5443102. Now the club has 65 farmer-members producing foundation and certified seeds of Gujarat Cumin 4. During 2009-10 to 2015-16, total 477610 kg and 30582 kg of certified/ TF and foundation seed is produced by this club, which is one of the most significant achievements. The seed is sold to farmers within the state and neighboring states also. The production of large quantity good quality of seeds enabled to increase the seed replacement ratio from 22.5 (2008-09) to 62.0 (2012-13) and productivity of cumin from 670 kg/ha to 900 kg/ha as well as production from 2.38 lakhs to 2.83 lakhs and continuously they are producing large quantity of quality seeds of GC 4.

Considering the significant role of this farmers club in the enhancement of production as well as productivity of cumin in the state it was awarded by NABARD during 2012.

