

Perspectives

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<http://thealternatevoice.blogspot.in/2015/03/beyond-apprehensions-experience-of.html>

Beyond Apprehensions: An experience of System of Cumin (*Cuminum cyminum*) Intensification – Gurpreet Singh, AKRSP-I

Vallabhbbhai Madhabhai Nakum from village Nandana in Kalyanpur block of Devbhoomi Dwarka District in Gujarat (India) became our pioneer small farmer to adopt apparently alien technology. It all started after our confidence which we gained with Cotton SRI in the same region of Aga Khan Rural Support Programme-India suggested that we to expand to other crops too. As previously mentioned by me in my blog, the region is affected by salinity of soil and water, both being close to the coastal line of extreme western India.

The farmer initially was having apprehension about adoption of SRI Cumin, but he agreed for a small area of 100 square meters (the risk in a smaller area is less, and I myself was not confident for cumin). As every time, the SRI technique challenged my logical conventional thinking and paradigm; but the production as usual turned out to be better in comparison to traditional methods. I shifted from diffidence to confidence thanks to appealing field results and the efforts taken by our AKRSP-I team in the field and the farmers. I was wrong every time and wrong for the cause of small and marginal farmers.

The basic package of practices involved in SRI started with preparation of land by chisel plough and leveling. The plot was then enriched with FYM mixed with Amrit Pani, a locally made input constituted of gram flour, neem leaves, calotropis leaves, jaggery and water, kept in air-tight earthen pot for 12 days. The seeds for SRI were soaked in 1% Amrit Pani solution for 3 hours and then dried in the shade. The light-weight seeds were removed when the seeds were soaked in the solution. After the seeds dried, they were sown with point placement in square pattern at a distance of 30*30cm. (In traditional plots, seeds are broadcasted.) 25 days after germination the first weeding was done with a small tool between the rows and columns, and Amrit Pani was sprayed in a 1% solution. This activity was carried every time there was weeding. Spraying of Amrit Pani was done at intervals of 15 days.

Rather than talk further, the table below makes details clear, and the pictures speak thousands of words. In the table, the cost of cultivation was also calculated to include weeding, and the seed price was based on local situation.

S.N	Details of farmer	SRI	Traditional
1	Date of sowing	3 rd December, 2014	3 rd December, 2014
2	Date of harvesting	28 February, 2015	28 February, 2015
3	Area	100 square metre	100 square metre

4	Spacing	30*30 cm	Broadcasting
5	Seed rate in grams	2	50
6	Urea	No	10 kg
7	FYM	100 kg Amrit Khad (FYM treated with Amrit Pani)	100 kg Amrit Khad (FYM treated with Amrit Pani)
8	Amrit Pani formulation	Sprayed 4 times	Not sprayed
9	1st weeding (minutes)	20	40
10	2nd weeding (minutes)	25	40
11	3rd weeding (minutes)	25	40
12	Variety planted	Gujarat 4	Gujarat 4
13	Biomass weight of sample crop cutting (plants in 1*1 m)	200.2 grams	144 grams
14	Average no. of seeds per plant (of 10 randomly selected plants)	562	247
15	Test weight of 1000 seeds	2.4 grams	1.6 grams
16	Average no. of tillers from 10 plants (rounded up)	11 main tillers, 6 second tillers	8 main tillers, 3 second tillers
17	Average length of 10 plants (rounded up)	12 cm	10.5 cm
18	Yield of 100 sq. m. in kilograms	7.9	4.8
19	Projected yield per hectare in kilograms ##	790	480
20	Returns from yield @ Rs. 140/kg	1106	672
21	Costs of production (weeding labor, Amrit Pani, fertilizers, FYM, and seeds included)	43.75	245
22	Profit to farmer	1062.25	427

National ave. = 430 kg/hectare



Vallabhbai in his traditional cumin plot



Vallabhbai in his SRI-Cumin plot



Phenotypic comparison of SRI and traditional cumin plants



Cumin seed yield in SRI and traditional taken from plants in 1 square meter area

Posted by [Gurpreet Singh](#) at [05:27](#)