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Performance of Frontline Demonstrations on Sesame in Tribal Areas of Vizianagaram District in Andhra Pradesh

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ABSTRACT

Frontline demonstrations were conducted in 44ha area from 1999 to 2004 in 106 farmers' field as demonstration units on both the varieties. On an average the variety YLM-11 has performed well and given an average yield of 6.30 quintals/ ha and YLM-17 produced an average yield of 5.56 quintal/ ha. The percentage increase in the demonstration plots over local check was 60.30 and 45.55 in YLM-11 and YLM-17 respectively. The extension gap in case of YLM-11 was 2.37q/ha and 1.74q/ha in case of YLM-17. The technology index is 21% to the variety YLM-11 and 20% to YLM-17 which shows the good performance of these varieties in tribal areas of the Vizianagaram district in Andhra Pradesh.

Key words : Extension gap, FLD, HYV, Sesamum.

The oil seeds scenario in the country has undergone thematic change. The main contributors to such transformation are availability of improved varieties of Oil seeds and production (Hegde, 2004). The improved package of practices were found to be cost effective and attractive, yet, adoption level of several improved practices and High yielding varieties is found to be low . There is a need to address the biotic, abiotic and socio – economic constraints that inhibit exploitation of yield potential of sesame.

The sesame crop is cultivated during late kharif season i.e. from the second fortnight of August to November. Most of the areas are occupied with red sandy soils distribute with pebbles and sloppy and found to be poor in fertility status. With the start of Technology mission on oil seeds, Frontline demonstrations on sesame using High yielding varieties and improved crop production technology was initiated with the objective to demonstrate the productive potentials of improved sesame varieties and improved production technologies in real farm situation over the locally cultivated sesame crop.

MATERIAL AND METHODS

The present study was conducted during late kharif season in the four revenue mandals of tribal areas viz. Gummalaxmipuram, Kurupam, Jiyyammavalasa and Komarada in Vizianagram district of Andhra Pradesh. The study was conducted on two varieties YLM-11 and YLM-17 released by the Agricultural Research Station, Yelamanchili with improved management practices. Locally cultivated varieties and farmers practice were used as local check. The FLD was conducted to study the technology gap, Extension gap and technology index. In the present evaluation study, the yield data of demonstration plots and local check was collected.

To estimate the technology gap, extension gap and technology index the formulae suggested by Samui *et.al* (2000) was used

Technology gap = Potential yield – Demonstration yield

Extension gap = Demonstration yield – local check yield

Technology index = Potential yield – Demonstration yield / Potential yield x 100

RESULTS ANDDISCUSSION

Frontline demonstrations were conducted in 44ha area from 1999 to 2004 in 106 farmers' field as demonstration units on both the varieties. On an average the variety YLM-11 has performed well and given an average yield of 6.30 Quintals/ ha and YLM-17 produced an average yield of 5.56 quintal/ ha and presented in table 1.

The findings indicate that the frontline demonstrations organized by the Krishi Vigyan Kendra, Rastakuntubai have shown impact on the tribal farmers of Vizianagaram district. The yield varied from year to year and demonstration plot due to the changing climatic situation, soil moisture availability, amount and distribution of rainfall, pest

Table 1. Performance of Frontline Demonstrations on Sesame HYV

(n = 106)

Variety	No of demon-strations	Area (ha)	Yield (quintal ha^{-1}) Potential yield	Demon-stration Yield	Local check Yield	% increase over local check	Technology gap	Exten-sion gap	Technology index
YLM-11	69	30	8.00	6.30	3.93	60.30	1.70	2.37	21.25
YLM-17	37	14	7.00	5.56	3.82	45.55	1.44	1.74	20.57

and disease incidence etc.,. The demonstrated High yielding varieties performed well over local check and recorded high yields. The percentage increase in the demonstration plots over local check was 60.30 and 45.55 in YLM-11 and YLM-17 respectively. This finding shows that farmer received higher yields of sesame because of adoption of HYV and improved crop management practices. The technology gap was 1.70 and 1.44 q/ha in the varieties. This gap was due to poor soil fertility status, change in demonstration plots and villages, amount of rainfall received and climatic changes over time.

The extension gap in table 1 in case of YLM-11 was 2.37q/ha and 1.74q/ha in case of YLM-17. This wide gap indicates that there is further need to suitably educate the tribal farmers to adopt HYV and improved management practices in sesame cultivation to reduce the existing extension gap. There was an observation from the findings that the extension gap was reduced from YLM-11 to YLM-17. This shown that the gap has been reduced over the time since the implementation of FLD on YLM-11 to YLM-17. This has shows that gap has been reduced because the farmers have practiced less improved management practices in YLM-11 which is implemented from 1999-2001. Whereas when it comes to the YLM-17 which was implemented later the extension gap has been reduced because farmers had already educated to a certain extent, hence it become easy to adopt in later periods.

The technology index shows the suitability or feasibility of certain high yield varieties and improved management practice to the particular location. The less the technology index shows the more feasibility of the technology. The technology index is 21.25% to the variety YLM-11 and 20.57% to YLM-17 which shows the good performance of these varieties in tribal areas of the Vizianagaram district in Andhra Pradesh. This also indicates that YLM-17 is more suitable to the area. This is useful to accelerate the productivity of sesame through adoption of HYV and improved management practices.

Conclusion:

The sesame varieties YLM-11and YLM-17 have performed excellent besides poor soil fertility status and climatic aberrations. These varieties may be popularized by the extension system to mitigate the wide extension gap besides educating the farmers in adoption of High Yielding Varieties and improved management practices in sesame production. Mainly small and marginal farmers are involved in production of sesame in tribal areas of Vizianagaram district, hence a holistic approach may be adopted by the extension agency to increase the adoption of improved sesame production technology.

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