

Performance of groundnut varieties in front line demonstration

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SUMMARY

Front line demonstration was conducted to identify suitable rainfed groundnut variety. The ruling rainfed varieties such as TMV 7, VRI 2 and TMV 13 were demonstrated in the farmers field to find out the productivity and profitability. Among these varieties VRI 2 followed by TMV 13 performed well in Madurai district and fetches better market price than TMV 7 and gave additional profit of Rs10,000 and 7000 /ha and for additional seed cost of Rs.1895 and 1177 /ha, respectively.

Key words : Groundnut, Productivity and profitability, Front line demonstration

In Tamil Nadu groundnut is cultivated in an area of 5.02 lakhs hectare with the production of 717 lakh tonnes and productivity of 1429 kg/ha. Compare to two decades ago the area has declined to 50% and the productivity remain the same. Non adoption of improved varieties, poor management practices, low yield potential of varieties and the cultivation restricted to the rainfed area are the major constraint factor attributed for the lower productivity in Tamil Nadu. Availability of improved varieties with high yield potential and the possibility of raising them all through the year, offers now immense scope to increase the productivity. Krishi Vigyan Kendra, Madurai conducted Front line demonstration on varietal performance of groundnut in the farmer's field to find out the suitability through the parameters of productivity and profitability.

MATERIALS AND METHODS

Front line demonstration was conducted in an area of 5 ha in 12 farmers field at rainfed area of Madurai district namely, Thirumangalam and Alanganallur block during 2008 to find out the performance of groundnut varieties such as TMV 7, VRI 2 and TMV 13. Line sowing was taken up during first week of June with the spacing of 30 x 15 cm along with recommended dose of fertilizer and usual cultivation practices. Observations recorded were total number of pods, single plant pod yield (g), 100 seed weight (g) and pod yield (kg /ha) and shelling %, cost of cultivation, gross return, net return and C.B ratio. Correlation coefficient and paired 't' test was worked

out as per methods suggested by Johnson *et al.* (1955).

RESULTS AND DISCUSSION

From the Table 1 it could be observed that, TMV 13 recorded more number of pods/plant (10.3) followed by VRI 2 (10.0) compared to TMV 7 (8.43). However, VRI 2 has recorded higher single plant pod yield (10.9 g) followed by TMV 13 (10.0 g) compared to TMV 7 (7.6 g). The same trend was observed in 100 seed weight where VRI 2, TMV 13 and TMV 7 recorded 40.16 g, 36.2 g and 34.7 g, respectively. The average shelling percentage of all these varieties revolved around 74.0 %. The productivity of VRI 2 was found to be higher which recorded pod yield of 1976 kg/ha followed by TMV 13 (1823 kg/ha). The lowest productivity was observed in TMV 7 with the yield of 1458 kg/ha. The test of significance of mean value through paired 't' test revealed that both VRI 2 and TMV 13 performed significantly better than TMV 7 in total number of pods, single plant grain yield, 100 seed weight and productivity in farmers field. The correlation coefficient presented in Table 1 revealed that except shelling percentage parameters such as single plant pod yield, 100 seed weight, total number of pods per plant has positive and significant relationship with productivity.

The data related to profitability presented in Table 2 revealed that, the maximum gross return of Rs. 395251 ha was obtained with VRI 2 followed by TMV 13 (Rs.36475/ha) and TMV.7 (Rs. 291671 ha). However, an additional seed cost of Rs. 1895/- for VRI 2 and Rs. 1177/- for TMV 13 was incurred over the seed cost of TMV 7. The additional seed cost alone produced additional gain of net return of Rs 8463/-and 6600/- for VRI 2 and TMV 13, respectively over TMV 7.

It can be concluded that, VRI 2 followed by TMV 13 performed well in Madurai district than TMV 7.

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