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Sesame High Yielding Variety: YLM-66 (Sarada)

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ABSTRACT

Sesame (*Sesamum indicum* L.) popularly known as til is an important oil seed crop. Sesame is warm temperature loving crop with a duration range of 85-115 days. Sesame is usually growing in light to medium textured well drained soils. Many of the farmers adopt local landraces of seeds for growing sesame. Local land races have low productivity of seed and oil content. Presently there is need in development and adoption of sesame high yielding varieties to obtain high productivity in seed yields. The main objective of the present study is to know the development method and morphological characteristics, seed yield of the sesame high yielding variety YLM-66 (sarada). The Sarada variety is brown seed variety developed by pedigree breeding method by crossing YLM-17×PS-201. The variety is tested over locations and released for cultivation to Andhra Pradesh and Telangana states during 2009. The Sarada (YLM-66) is a brown seed variety suitable to rabi-summer season. It grows within 80-85 days duration. The Sarada variety is recommended for adoption to Andhra Pradesh and Telangana farmers for cultivation. The Sarada variety recorded 25.7 per cent increased yield over the check TKG-22. Sarada variety recorded average productivity of 1125 kg/ha of sesame seed and with oil percentage of 50.3 per cent. The sarada variety have great impact in sesame production occupying an area of more than 60 percentage.

Key words: Sarada, Sesame, Variety, Yield.

Sesame (*Sesamum indicum* L.) is known oil seed crop from times immemorial. The sesame seed and oil are edible and has wide applications in industrial, medicinal, pharmaceutical industries (Elleuch 2007). The sesame oil is rich in Vit E and preferred for cure of skin diseases (Ashri 2007). The sesame is drought resistant crop and grows up well with minimum irrigation. Sesame seed widely available in brown, black and white seed. The average productivity of sesame in India is 571 kg/ha, grown in an area of 0.15 lakh ha with 8.57 lakh metric tonnes production. It is majorily cultivated in West Bengal, Gujarath, Rajasthan, Maharashtra, Tamil Nadu, Karnataka Telanagana and Andhra Pradesh. India, Sudan, China and Burma are the major producers of the world (Abou *et al*., 2000). Most of the farmers adopt local land races in sesame cultivation. Many varieties have been released and adopted for general cultivation of sesame in India (Deokar *et al*., 1987). Adoption of high yielding sesame varieties JL-T-7 (Deokar *et al*., 1987), Phule TilNo-1 (Chaudhari *et al*., 1980) improve the seed yield and fetches higher remunerative price to farmers. Sarada (YLM-66) is a high yield brown seed variety of sesame recommended for adoption to farmers.

Sarada is a brown seed colour variety developed at Agricultural Research Station Yellamanchili. The sesame variety is developed by crossing YLM-17×PS-201. The variety is tested for four years from 2000 to 2003 for four years at Agricultural Research Station, Yellamanchili. The entry is tested in three zones (Zone I, II, III) at National level in AICRP testing. The YLM-66 brown seed is tested at multi locations. The morphological characters of sesame are recorded (Table 1). The oil percentage is also recorded using Nuclear Magenetic Resonance chromatography. The seed yield data is recorded. (Table 1). The YLM-66 sesame variety is also screened for diseases and pests. The YLM-66 is released during the year 2009.

The Sarada variety (Fig 1) is erect with branching habit. Stem is angular and straight. Leaves are dark green, lower leaves are cordate and the upper leaves are lanceolate and linear. Leaves are alternatively arranged. Flower is solitary, tubular, corolla, white with pink wash. The capsules are single, bicarpellary, tetralocular, alternate (Table 1). The average seed yield is 1125 kg per ha and oil yield of 565.9 kg/ha. (Table 2). The seed yield of Sarada (YLM-66) (Fig 1) ranged from 431-1716 kg/ha. The pooled mean data recorded over locations are depicted in Table 2.

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Table 1: Morphological characters of *Sesamum indicum* L. Sarada (YLM-66) variety.

Character	Description
Habit	Uniform maturity of the plant population, branching habit is observed
Plant height (cm)	110-120 cm
Stem	Erect, angular and straight
Leaves	Dark green, lower leaves cordate upper leaves lanceolate and linear. Leaves arranged alternatively.
Flower	Solitary, tubular corolla, flower opens, white with pink wash
Capsules	Single, Solitary, Bicarpellary, four loculed, alternate
Seed	Light brown colour, medium size, seed coat smooth
Season	Rabi-summer
Duration	80-85 days medium duration
1000 seed weight (g)	3.30 g
Seed yield (kg/ha)	1125
Oil percentage	50.3%
Oil yield (kg/ha)	565.8

Table 2: Pooled mean seed yield kg/ha of sarada (YLM-66) over locations.

District	Mean seed yield of Sarada (YLM-66) (kg/ha)	Mean seed yield of TKG-22 national check (kg/ha)	% Increase in yield over the check
Jagitial, Telangana	1084	856	26.6%
Raipur, Chhattisgarh	952	595	60%
Bhubaneswar, Orissa	1716	1629	5.3%
Kayankulam, Kerala	431	357	20.7%
Vrindachalam, Tamil Nadu	602	478	25.9%
Mean	1125	807.8	25.72%

Fig 1: Sesame (*Sesamum indicum* L.) high yielding variety YLM-66 (Sarada).

CONCLUSION

Sarada (YLM-66) sesame variety released during the year 2009 is a high yielding sesame brown seed variety with average productivity of 1125 kg/ha of sesame seed and with oil percentage of 50.3%. The Sarada variety is recommended for adoption to Andhra Pradesh and Telangana farmers for cultivation. Sarada is high yielding variety fetches high remunerative price to farmers and have great impact in sesame production occupying more than 60 percentage area in sesame production in Andhra Pradesh.

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REFERENCES

Abou-Gharbia, H.A., Shehata, A.A.Y and Shahidi, F.F. (2000). Effect of processing on oxidative stability and lipid classes of sesame oil. Food Research International. 33: 331-340.

Ashri, A. (2007). Sesame (*Sesamum indicum* L.). In: Genetics Resources, [Singh, R.J. (ed)] Chromosome Engineering, and Crop Improvement, CRC Press, Boca Raton, FL, USA. Oilseed Crops. (4): 231-289

Chaudhari, P.N., Patil, G.D., Zope, R.E., and Patil, N.Y. (1980). Phule Til No. 1-a promising sesamum variety for central and western Maharashtra. Journal of Maharashtra Agricultural Universities. 5(1): 26-29.

Deokar, A.B. Chaudhari. P.N, Shinde, Y.M., Patel, D.M., Tendulkar and Patil, G.D. (1987). JLT-7: A new variety of sesamum for Maharashtra. Indian Farm. 9-10.

Elleuch, M., Besbes, S., Roiseux, O., Blecker, C. and Attia, H. (2007). Quality characteristics of sesame seeds and by-products. Food Chemistry. 103: 641-650.