

15. Ole-9-P2-P1-P22 (IC0597598; INGR13066), a Safflower (*Carthamus tinctorius*) Germplasm as a High Oleic Acid (18.63%) and High Oil (34%) Content Line

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Safflower (*Carthamus tinctorius* L.) is an important oilseed crop, its oil demand is increasing world over because of its potential for multi-purpose uses. Oleic content in safflower oil is generally around 17-20% making it unsuitable for deep frying (Gecgel *et al.* 2007). High oleic safflower oil is stable at high temperatures and makes it superior for frying. High oleic oil is also suitable as a biodiesel fuel additive (Bergman and Flynn, 2001).

The high oleic safflower line, Ole-9-P2-P1-P22, having 81% oleic content was developed from a cross, EC523367-9 x EC548816-14, through back-crossing followed by sib-crossing and simultaneous selection for high oleic and high oil content at the Directorate of Oilseeds Research, Hyderabad, India (Praduman and Anjani, 2012). The parent, EC-523367-9 is a high oleic selection and the parent, EC-548816-14 is a lenoleic selection possessing high seed weight.

Ole-9-P2-P1-P22 possesses high oil content (34%). It is spiny in nature with profuse branching habit, serrate obvate upper leaves and green stem. It matures in 70-75 days and matures in 120 to 125 days after planting. It also exhibited resistance to wilt (*Fusarium oxysporum* f.sp. *carthami*) in wilt sick plot over three years at the Directorate of Oilseeds Research, Hyderabad.

References

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16. TCH 1728 (IC0597400; INGR13067), a Cotton (*Gossypium hirsutum*) Germplasm with Leaf Hopper (*Amrasca bigutulla*) Resistance, More Leaf Thickness, Higher Number of Trichomes

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The proposed breeding line TCH 1728 is an assured source for leaf hopper resistance. It has unique characteristic features of more leaf thickness and higher number of leaf trichomes. The breeding line was developed at Department of Cotton, Tamil Nadu Agricultural University, Coimbatore during 2004-05 from the parental hybridization of H 26 X H 56-9-6-4-1 followed by pedigree selection breeding.

Morpho Agronomic Characteristics: The breeding line TCH 1728 recorded a boll weight of 4.6 g and

with about 32 numbers of bolls per plant. Boll shape of the entry is oval with pointed tip and had medium size boll. Under All India Co-ordinated Varietal Trial, the breeding line TCH 1728 was recorded 1,811 kg/ha and ranked 2nd place in South zone during 2010-11 in Br.02a Initial Evaluation trial of *G. hirsutum*. This was 18.9% and 16.8% increase yield over the local check MCU 13 (1,523 kg/ha) and zonal check surabhi (1,550 kg/ha) respectively. In respect of fibre quality parameters, the breeding line TCH 1728 possessed a ginning outturn of 31.1%. It is registered as long staple