

RESEARCH ARTICLE :

Assessment of distinctiveness, uniformity and stability of Safflower (*Carthamus tinctorius* L.) varieties based on morphological descriptors

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SUMMARY : Morphological characterization of safflower varieties is essential for their protection under Plant Variety Protection (PVP) legislation, because varietal testing for Distinctness, Uniformity and Stability (DUS) are the basis for granting protection of new variety under PPV&FR Act, 2001. Keeping this in view, a total of 22 released varieties of safflower were grouped for various agromorphological descriptors. In safflower overall 27 characters are proposed for observation at various stages of crop growth. Out of 27, four characters were recorded on first leaf of safflower. Safflower varieties were classified on the basis of 50 % flowering which is one of the essential character and JSI-99 showed very early, A-300, AKS-207, Nira, Sharda, MSV-10-1-5 and GMU-2369 were early flowering where as remaining were late. The other two essential characters were recorded at flowering stage *i.e.* petal colour and change of petal colour after 10 days of flowering. Classification on the basis of plant height only one variety *i.e.* JSI-99 was very short and remaining were under short and tall group. Considerable variability was observed for seed size, 5 varieties were grouped as small seed size, 10 varieties grouped as medium and remaining 7 varieties as large seed size. The information generated on range of variability will be valuable for comparison of newly developed cultivars.

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