

## SELECTION OF SPINELESS SAFFLOWER

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Safflower (*Carthamus tinctorius* L.) is an oilseed crop original from the semi-arid areas of the Near East and domesticated since long time for the production of an edible oil of good quality and the use of flowers as dyes for food and textile materials. The crop is characterized by the presence of very acute spines (Fig. 1) in the leaves and in the inflorescences, making the handling of the crop rather difficult.

45 accessions, obtained by one of us (A.B.) from Iran, India and USA, were grown in bulk and single completely spineless plants were selected. In the second generation these plants were segregates with and without spines and then only 50 progenies have been selected for the complete absence of spines. Besides this domestication trait, a large variability was maintained for many other morpho-physiological characters of the plants, such as plant height, branching, size of inflorescences, color of flowers, size, shape, color of seeds. Within this genetic pool further selection will be performed for oil content and fatty acids composition, in order to provide new cvs of this oil crop for fall seeding in marginal and semi-arid areas of southern and central Italy for both human alimentation and energy production.



Figure 1. Dried sample of *Carthamus tinctorius* L. showing the presence of spines on the top of the inflorescence.