



## AVRDC-GRSU CHARACTERIZATION RECORD SHEET

Crop: *Carthamus tinctorius*

Plot No. : \_\_\_\_\_ Accession No. : \_\_\_\_\_

Sowing Date: \_\_\_\_\_ Name: \_\_\_\_\_

Transplanting Date: \_\_\_\_\_ Species: \_\_\_\_\_

Location: \_\_\_\_\_ Origin: \_\_\_\_\_

### SEEDLING DATA

**Saf01** Germination period (no. of days from sowing to first germination) \_\_\_\_\_

**Saf02** Hypocotyl color \_\_\_\_\_

1 = Light green      2 = Green      3 = Dark green  
4 = Purple            5 = Dark purple

**Saf03** Cotyledon color \_\_\_\_\_

1 = Light green      2 = Green      3 = Dark green  
4 = Purple            5 = Dark purple

### VEGETATIVE DATA

**Saf04** Growth habit \_\_\_\_\_

1 = Erect    2 = Bushy

**Saf05** Rosette period (no. of days from date of emergence) \_\_\_\_\_

**Saf06** Location of branches on main axis \_\_\_\_\_

0 = No branches  
1 = Predominantly basal  
2 = Predominantly on the upper third of the plant  
3 = Predominantly on the upper two-thirds of the plant  
4 = From base to apex

**Saf07** Number of branches \_\_\_\_\_

\_\_\_\_\_

**Saf08** Angle of branches \_\_\_\_\_  
0 = No branches                      3 = Appressed, 15° to 20°  
5 = Intermediate, 20° to 60°        7 = Spreading, 60° to 90°  
9 = Drooping, >90°

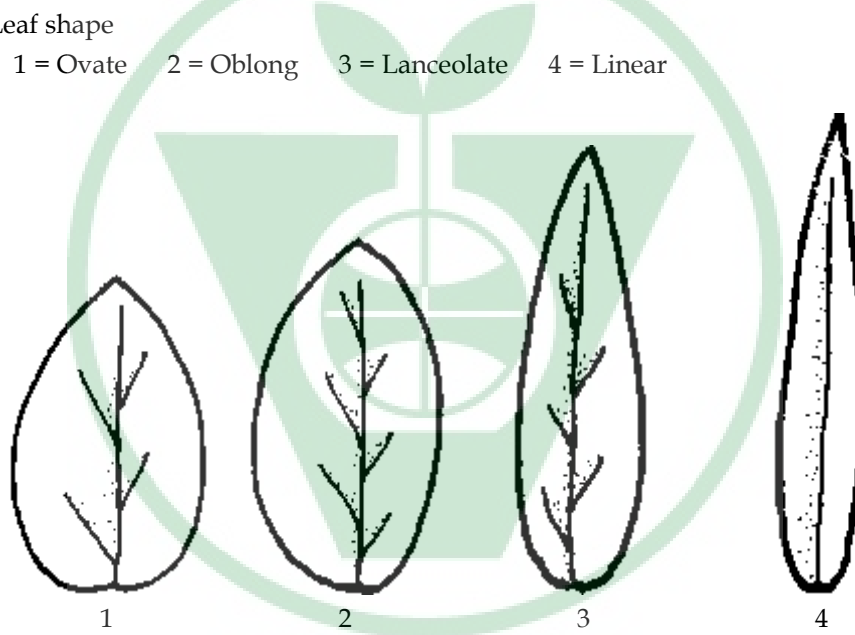
**Saf09** Plant height (cm) (at flowering stage) \_\_\_\_\_  
\_\_\_\_\_

**Saf10** Inter-note length (cm) (at 7th or 8th) \_\_\_\_\_  
\_\_\_\_\_

**Saf11** Stem color \_\_\_\_\_  
1 = White    2 = Green

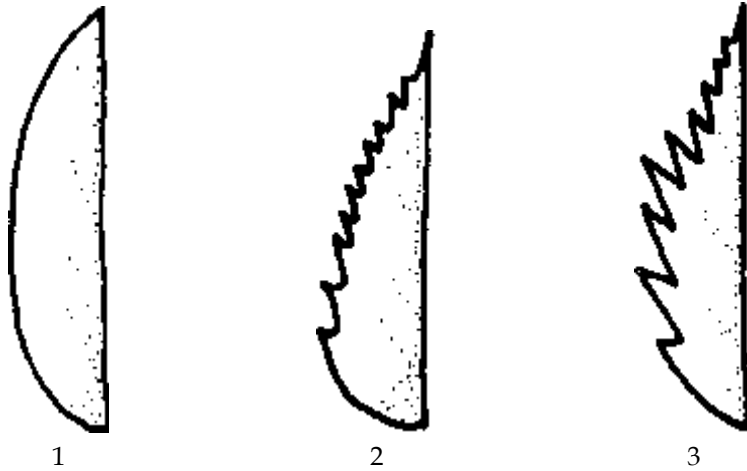
**Saf12** Stem pubescence \_\_\_\_\_  
1 = None    2 = Few    3 = Intermediate    4 = Many

**Saf13** Leaf shape \_\_\_\_\_  
1 = Ovate    2 = Oblong    3 = Lanceolate    4 = Linear



**Saf14** Leaf texture \_\_\_\_\_  
1 = Fleshy    2 = Normal    3 = Leathery

**Saf15** Leaf margin  
 1 = Entire 2 = Serrate or dentate 3 = Deeply serrate



\_\_\_\_\_

**Saf16** Leaf color  
 1 = Light green (yellowish tinge) 2 = Dark green (bluish tinge)  
 3 = Greyish 4 = Other (specify)

\_\_\_\_\_

**Saf17** Leaf hairiness  
 0 = Non-hairy 3 = Few hairs 5 = Intermediate 7 = Many hairs

\_\_\_\_\_

**Saf18** Extent of leaf spininess  
 0 = Non-spiny 3 = Few spines 5 = Intermediate 7 = Many spines

\_\_\_\_\_

**Saf19** Leaf length (cm)

\_\_\_\_\_

**Saf20** Leaf width (cm)

\_\_\_\_\_

**INFLORESCENCE DATA**

**Saf21** Days to flowering (from sowing to 50% with inflorescence)

\_\_\_\_\_

**Saf22** Shape of Outer Involucral Bracts (OIB) in cross-section

\_\_\_\_\_

1 = Flat 2 = Grooved



**Saf23** Outer Involucral Bracts (OIB) width (cm) \_\_\_\_\_  
\_\_\_\_\_

**Saf24** Outer Involucral Bracts (OIB) length (cm) \_\_\_\_\_  
\_\_\_\_\_

**Saf25** Outer Involucral Bracts (OIB) attitude  
1 = Close 2 = Open \_\_\_\_\_

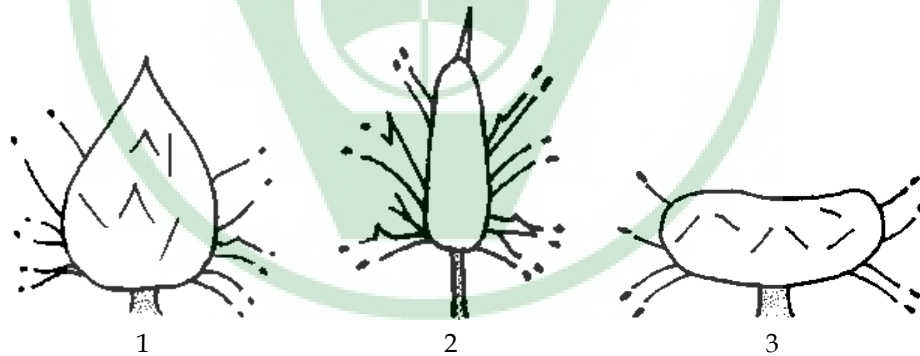
**Saf26** Bracts enclosing head  
1 = Incomplete 2 = Complete \_\_\_\_\_

**Saf27** Number of spines on OIB  
\_\_\_\_\_

**Saf28** Location of spines on OIB  
1 = Tip only 2 = Tip and few apical 3 = Tip and few basal  
4 = Tip and all along margins 5 = Margins only \_\_\_\_\_

**Saf29** OIB spine color  
0 = No spines 1 = Whitish 2 = Yellowish 3 = Greenish \_\_\_\_\_

**Saf30** Head (capitulum) shape (primary head shape before flowering)  
1 = Conical 2 = Oval 3 = Flattened \_\_\_\_\_



**Saf31** Diameter of primary head (cm) \_\_\_\_\_  
\_\_\_\_\_

**Saf32** Corolla color in bloom  
1 = White 2 = Pale yellow  
3 = light yellow 4 = Yellow  
5 = Light orange base 6 = Yellow, base and tips of lobes orange  
7 = Red-orange 8 = Pink  
9 = Purple \_\_\_\_\_

**FRUIT & SEED DATA**

**Saf33** Days to harvest for the flower \_\_\_\_\_

**Saf34** Peduncle length (cm) \_\_\_\_\_

\_\_\_\_\_

**Saf35** Seed color \_\_\_\_\_

1 = White 2 = Cream 3 = Brown 4 = Black 5 = Grey

**Saf36** Seed hull thickness \_\_\_\_\_

0 = Hull absent 1 = Thin 2 = Normal 3 = Thick

**Saf37** Pappous \_\_\_\_\_

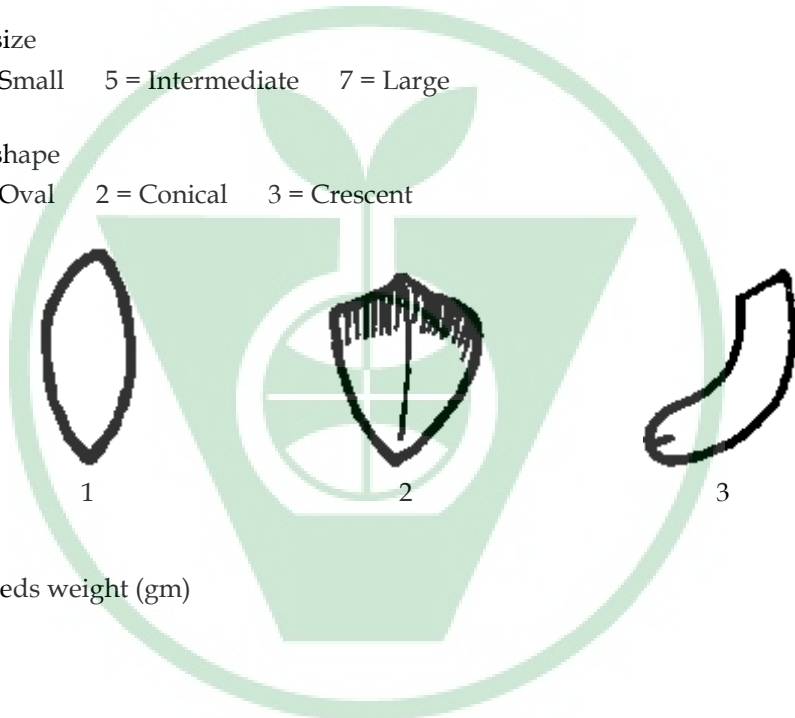
0 = Absent + = Present

**Saf38** Seed size \_\_\_\_\_

3 = Small 5 = Intermediate 7 = Large

**Saf39** Seed shape \_\_\_\_\_

1 = Oval 2 = Conical 3 = Crescent



**Saf40** 100 seeds weight (gm) \_\_\_\_\_