

Safflower (*Carthamus tinctorius* L.) Descriptors

1. Growth habit

- 1 Erect
- 2 Bushy

2. 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

3. Internode length

- 3 Short
- 5 Intermediate
- 7 Long

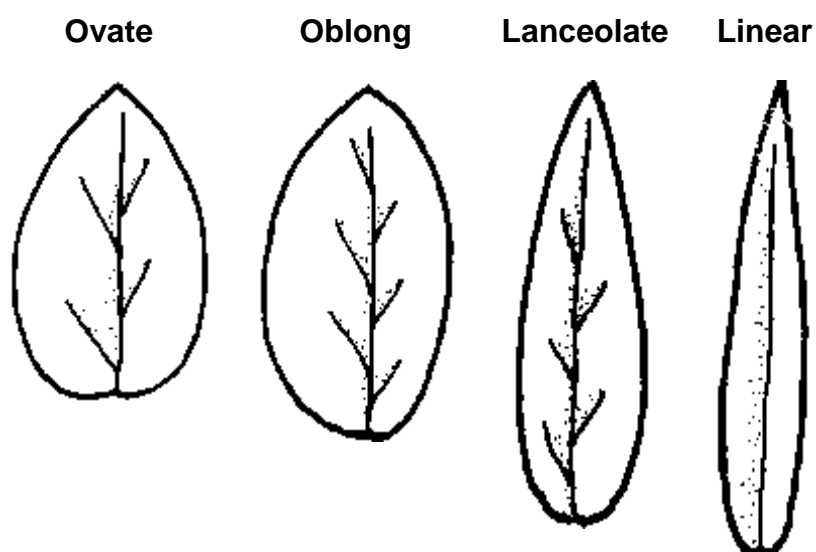
4. Stem colour

- 1 White
- 2 Green
- 3 Other (specify in the NOTES descriptor, 11)

5. Leaf shape (upper stem leaves) See Fig. 1

- 1 Ovate
- 2 Oblong
- 3 Lanceolate
- 4 Linear

Fig. 1. Leaf shape

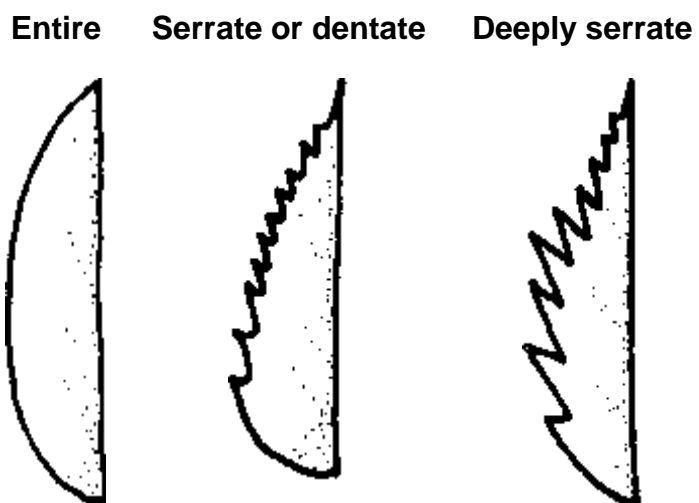


6. Leaf margin

See Fig. 2

- 1 Entire
- 2 Serrate or dentate
- 3 Deeply serrate

Fig. 2. Leaf margin



7. Extent of leaf spininess

- 0 Non-spiny
- 3 Few spines
- 5 Intermediate
- 7 Many spines

8. Outer Involucral Bracts (OIB) Width

In mm at widest point

9. OIB length

In mm

10. Number of spines on OIB

- 0 None
- 3 Few
- 5 Intermediate
- 7 Many

11. 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

12. Days to 50% flowering

Number of days from planting or first irrigation to 50% of plants having first flower

13. Corolla colour 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
- 10 Other (specify in the NOTES descriptor, 11)

14. Corolla colour of dry flower

- 1 Grey-white
- 2 Pale yellow
- 3 Yellow
- 4 Light orange
- 5 Orange base
- 6 Orange
- 7 Deep red
- 8 Other (specify in the NOTES descriptor, 11)

15. Pollen production

Amount of pollen produced before bee activity in the morning or in the bagged heads

- 3 Sparse
- 5 Intermediate
- 7 Abundant

16. Pollen colour

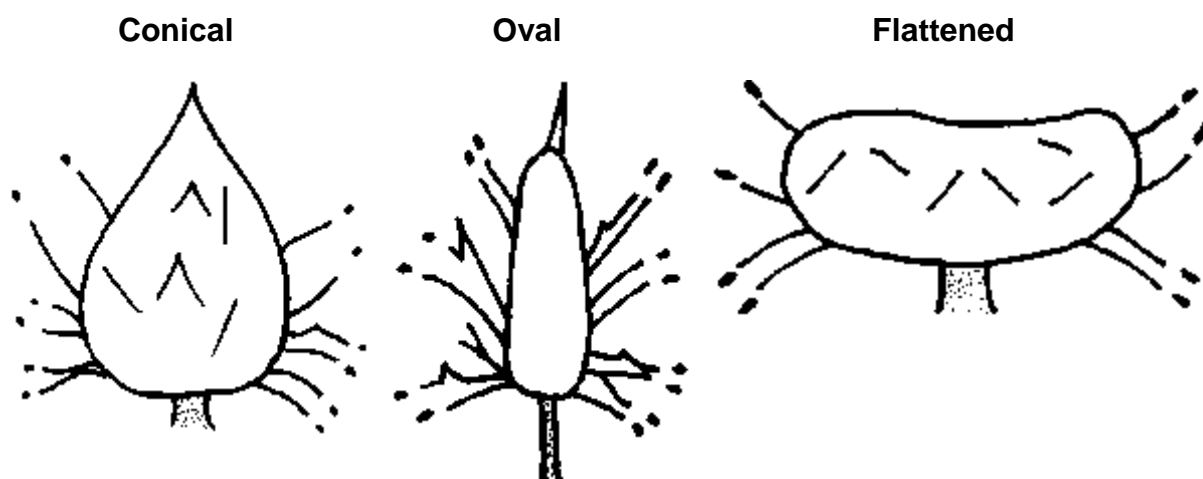
- 1 White
- 2 Yellow

17. Head (capitulum) shape

Primary head shape before flowering (see Fig. 3)

- 1 Conical
- 2 Oval
- 3 Flattened

Fig. 3. Head (capitulum shape)

**18. Head (capitulum) number**

Per plant

19. Diameter of primary head

At maturity in mm measured at base

20. Days to physiological maturity

Number of days to 75% of plants reaching physiological maturity from date of planting or first irrigation

21. Uniformity of maturation

- | | |
|---|---------|
| 1 | Uniform |
| 2 | Varying |

22. Plant height

Mean (in cms) of 5 random plants from the middle of the plot

23. Seed shattering at harvest

- | | |
|---|-----------------|
| 3 | Low shattering |
| 5 | Intermediate |
| 7 | High shattering |

24. Seed number

Per primary head

25. Seed colour

- | | |
|---|-------|
| 1 | White |
| 2 | Cream |
| 3 | Brown |

- 4 Black
- 5 Grey
- 6 Other (specify in the NOTES descriptor, 11)

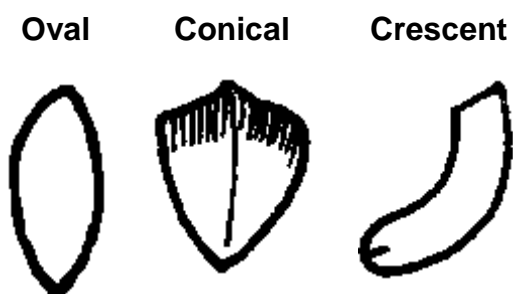
26. Seed size

- 3 Small
- 5 Intermediate
- 7 Large

27. Seed shape See Fig. 4

- 1 Oval
- 2 Conical
- 3 Crescent

Fig. 4. Seed shape



28. Pappus

- 0 Absent
- + Present

29. Yield per plant

Mean (in g) of 5 random plants from the middle of the plot

30. 1000 seed weight

In g at 6% moisture content