FINGER MILLET: *Eleusine coracana* (L.) Gaertn.

1. Growth habit

Recorded 40 days after sowing- Tillering attitude

3 Decumbent
5 Erect
7 Prostrate

2. Plant pigmentation (At flowering)

0 Absent
1 Present

If Present

On glumes 2
On nodes 3
On leaf juncture 4
On all parts 5

3. Culm branching

At dough stage

0 Absent
1 Present

If present - Number of culm branches at maturity

4. Ear Shape

At dough stage

1 Droopy (fingers lax and drooping)
2 Open (Fingers straight)
3 Semi-compact (tops of fingers curved)
4 Compact (fingers incurved)
5 Fist like (fingers very incurved)

5. Ear size

At dough stage

3 Small
5 Intermediate
7 Large

6. Finger branching

At dough stage

0 Absent
1 Present

7. Multiple whorls

Present or absent

8. Gaps on fingers

Discontinuity of spikelets on finger at dough stage

0 Absent
1 Present

9. Spikelet shattering (at maturity)
0 Absent
1 Present

10. Grain covering by glumes (at maturity)
3 Exposed
5 Intermediate
7 Enclosed

11. Grain uniformity (post harvest)
0 Not uniform
1 Uniform

12. Pericarp persistence on seed after threshing
0 Not persistent
3 Partially persistent
7 Persistent

13. Lodging susceptibility at maturity
3 Low
5 Intermediate
7 High

14. Glume colour

White	1
Green white	2
Green	3
Light brown	5
Brown	6

15. Synchrony at maturity

Non synchronous	1
Synchronous	2

16. Seed shape

Round	1
Reniform	2
Ovoid	3

17. Degree of lodging

Slight	3
Medium	5
High	7

18. Seed shattering

Absent	1
Present	2

19. Seed colour

White	1
Light brown	2
Copper brown	3
Purple brown	4

20. Seed surface

Non-wrinkled	1
Wrinkled	2

21. Spikelet density

Sparse	1
Intermiate	3
Dense	5

22. Days to 50 % flowering
    From sowing to stage when ears have emerged from 50% of main tillers
23. Plant height (cm)
    Measured from ground level to tip of inflorescence at dough stage
24. Productive tillers per plant
    Number of basal tillers which bear mature ears
25. Ear excretion of inflorescence at dough stage
26. Culm thickness (cm)
    Diameter of internodes 10 cm above the ground at dough stage
27. Flag leaf sheath length (cm)
    Measured from node to ligule of flag leaf at flowering
28. Flag leaf Blade length (cm)
    Measured from ligule to leaf tip at flowering
29. Flag leaf blade width (cm)
    Measured across the centre of leaf at flowering
30. Leaf blade length (cm)
    Measured from ligule to tip fourth leaf blade from top at flowering
31. Leaf blade width (cm)
    Measured across centre of fourth leaf blade from top at flowering
32. Leaf number
    Number of leaves on main tillers at flowering
33. Peduncle length (cm)
    Measured from top most node to the base of thumb finger
34. Days to maturity
    To be recorded as number of days from sowing to the stage when 80 % of main tillers have mature ear
35. Grain Protein Content (DW %)
    Percentage of dry grain weight
36. Calcium Content (DW %)
    Percentage of dry grain weight
37. Distance between main earhead and thumb finger
38. Finger length (cm)
    From base to tip of longest finger on the main tiller at dough stage

39. Finger width (cm)

Measured across centre of any one of the finger on the main tiller

40. Length from leaf junction to the tip of earhead

Distance between leaf junction and thumb finger

41. Seed number/ spikelet

42. Ear weight (g)

Total ear weight of each plant after harvest was taken and mean of five plants was computed.

43. Grain yield (g)

Weight of total grain yield of tagged plants was recorded and the mean yield per plant was calculated.

FOXTAIL MILLET: *Setaria italica* (L.) Beauv.

VEGETATIVE

1. Growth habit
    1 Erect
    2 Erect geniculate
    3 Decumbent
    4 Prostrate

2. Plant pigmentation at harvest:
    Purple-3
    Yellow-5
    Others-7
3. Leaf colour
    1 Green
    2 Yellow
    3 Purple
    4 Deep Purple

4. Blade Pubescence
    1 Essentially glabrous
    5 Medium pubescent
    9 Strongly pubescent
5. Sheath Pubescence
    1 Essentially glabrous
    5 Medium pubescent
    9 Strongly pubescent

6. Degree of lodging at maturity
    1 Very slight
    5 Medium
    9 Extensive
7. Senescence
    Degree to which the plant is still green at time the primary panicle on each culm (tiller) reaches maturity
    1 Actively growing
    9 Dead
8. Inflorescence lobes
    0 Absent
    3 Short
    7 Long
    9 Large and Thick
9. Inflorescence colour:
    Pigmented-1
    Non pigmented-2
10. Inflorescence shape:

Cylindrical 1
Pyramidical 2
Obvate 3

11. Inflorescence lobes:
    Absen 0
    Strong 3
    Long 7
    Large and thick 9
12. Inflorescence bristles:
    Absent 0
    Very short 1
    Short 3
    Medium 5
    Long 7
    Spongy 9
13. Auricle pigmentation:
    Absent 0
    Present 1
14. Lobe compactness
    3 Loose
    5 Medium
    7 Compact
    9 Spongy

15. Panicle Shape
    1 Cylindrical
    2 Pyramidal
    3 Obviate
16. Seed colour
    1 Red
    2 Black
    3 White
    4 Yellow

17. Grain Shape
    1 Oval
    2 Elliptical

18. Apical sterility in panicle
    0 Absent
    1 Present

19. days to 50 % flowering
    From sowing to stage when the ears have emerged on 50 per cent of the main tillers
20. Plant height (cm)
    From ground level to the tip of the inflorescence at dough stage

21. Basel tillers
    Number of tillers at ground level or from the basal nodes
22. Flag leaf length (cm)
    Measured from ligules to leaf tip at flowering
23. Flag leaf width (cm)
    Measured at widest point of leaf blade at flowering
24. Peduncle length (cm)
    Measured from top most node to the base of inflorescence
25. Sheath length of flag leaf (mm)
    Measured from internodes to ligule
26. Panicle exertion (cm)
    Measured from the exposed point of the peduncle from leaf sheath up to base of the panicle
27. Bristle Length (mm)
    Measured at late dough stage at middle of the panicle
28. Days to maturity
    From sowing to stage when 50 per cent of the tillers have attained physiological maturity.
29. Ear length (cm)
    From base to the tip of ear on the main tiller at dough stage
30. Culm branches
    Number of culm branches on the main stem
31. Grain yield per plant (g)
    Mean of five random plants yield
32. Thousand grain weight (g)
    Weight of random sample of 1000 seeds from the total harvest of an accession
33. Uniformity of population maturity (%)
    Percentage of plants matured at harvest
34. Uniformity of individual plant maturity (%)
    Percentage of panicle mature on racemes at full maturity
35. Shattering of inflorescence (%)
    Percentage of spikelets remaining on the racemes at full maturity
36. panicle weight (g/p)
37. Grain Yield (kg/ha)
38. Straw yield for fodder (kg/ha)
39. Plant aspect
    Overall agronomic eliteness of the accession
    1 Very poor
    3 Poor
    5 Average
    7 Good
    9 Very good

BARNYARD MILET: *Echinocloa frumentacea* (Roxb.) Link.

1. Growth habit
   - 1 Erect
   - 2 Decumbent
   - 4 Prostrate
2. Plant pigmentation

Absent	0
Present	1

3. Degree of culm branching

Absent	0
Present	1

4. Degree of lodging:

Low	3
Intermediate	5
High	7

5. Colour of Inflorescence:

Green	1
Light purple	2
Dark purple	3

6. Inflorescence shape:

Cylindrical	1
Pyramidical	2
Globose-elliptic	3

7. Inflorescence compactness:

Open	3
Intermediate	5
Compact	7

8. Senescence

   Degree to which the plants is still green at time the primary panicle on each culm (tiller) is reaching maturity
   - 3 Actively growing
   - 7 Dead

9. Shape of lower racemes
   - 1 Straight (not slender)
   - 2 Curved (not slender)
   - 3 Slender

10. Branching of lower racemes
    - 0 Absent
    - 1 Present

11. Spikelet Arrangement
    - 1 One side of rachis
    - 2 Arranged around rachis

12. Grain colour
    - 1 Straw white

2 Grey+ straw white
3 Brownish grey
4 Grey
5 Light grey

13. Grain shape
    1 Concave
    2 Oval
14. Plant Height (cm)
    Measured from ground level to tip of spike; in case of decumbent or prostrate plants, length of flowering culm from rooted base. To be recorded after 20-25 days after sowing
15. Number of basal tillers
    Number of tillers at ground level or from the basal nodes
16. Flag leaf blade length (cm)
    Measured from ligule to leaf tip at flowering
17. Flag leaf blade width (cm)
    Measured at widest point of the leaf blade at flowering
18. Length of peduncle (cm)
    Measured from node of lowest raceme to tip of last raceme
19. Length of lower racemes (cm)
    Length of the raceme situated at the base of spike
20. Grain yield per plant (g)
    Mean of five random plants yield
21. 1000 grain weight
    Weight of random samples of 1000 seeds from the total harvest of an accessions
22. Pedicel length (mm)
23. Number of racemes per spike
24. Flag leaf Sheath length (cm)
    Measured from internode to ligule
25. Days to 50 % flowering
26. Days to maturity
27. Yield of Straw for fodder (kg) Per hectare
28. Number of nodes per primary axis of spike
29. Length of spike (cm)
    Measured from node of lowest raceme to tip of last raceme.
30. Width of spike (mm)
31. Uniformity of population maturity
    Percentage of plants at harvest
32. Grain yield per plant (g)
    Mean of five random plants yield
33. Kernel colour
    To be recorded after threshing