Plant	Warm season grasses	31(06007)	Primary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Plant type	10 plants, 2 replications	Observation	1:Erect 2:Nearly erect 3:Semi-erect 4:Slightly semi-erect 5:Intermediate 6:Slightly intermediate 7:Semi-prostrate 8:Nearly prostrate 9:Prostrate	Angle that the main stems make with the ground at heading stage
2	Culm length	10 plants, 2 replications	Measurement	cm (integer)	Length from the neck node of panicle to the ground at heading stage
3	Panicle length	10 plants, 2 replications	Measurement	cm (round to the 1st decimal place)	Length from base of the lowest primary rachis-branch to the tip of panicle
4	Stem thickness	10 plants, 2 replications	Measurement	mm (round to the 1st decimal place)	Long diameter of the internode just below the panicle of the longest stem at heading stage
5	Leaf length	10 plants, 2 replications	Measurement	cm (round to the 1st decimal place)	Leaf of the first leaf blade below flag leaf
6	Leaf width	10 plants, 2 replications	Measurement	cm (round to the 1st decimal place)	Leaf width of the widest part of the first leaf blade below flag leaf
7	Date of first heading	10 plants, 2 replications	Observation	date	Date when at least 10% of plants have begun heading
8	Shattering habit	10 plants, 2 replications	Observation	3:Easy 4:Slightly easy 5:Intermediate 6:Slightly hard 7:Hard	Ease of detaching ripe seeds from rachis-branches
9	Number of panicles	10 plants, 2 replications	Observation	0:None 1:Almost none 2:Extremely few 3:Very few 4:Few 5:Intermediate 6:Some 7:Many 8:Very many 9:Extremely many	Number of panicles at heading stage or at the first cutting

Plant	Warm season grasses	31(06007)	Primary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Pubescence on leaf and stem	10 plants, 2 replications	Observation	1:None or extremely little 2:Very little 3:Little 4:Slightly little 5:Intermediate 6:Some 7:Much 8:Very much 9:Extremely much	Presence and amount of pubescence on leaf blade, ligule, leaf sheath and stem node at heading stage
2	Waxiness of leaf and stem	10 plants, 2 replications	Observation	1:None or extremely little 2:Very little 3:Little 4:Slightly little 5:Intermediate 6:Some 7:Much 8:Very much 9:Extremely much	Presence and amount of wax on stems and leaves at heading stage
3	Leaf color	10 plants, 2 replications	Observation	3:Light green 4:Slightly light green 5:Green 6:Slightly dark green 7:Dark green	Color of leaf blades at heading stage
4	Texture of leaves	10 plants, 2 replications	Observation	1:Extremely tender 2:Very tender 3:Tender 4:Slightly tender 5:Intermediate 6:Slightly rough 7:Rough 8:Very rough 9:Extremely rough	Texture of leaf blades determined by touching at the early heading stage
5	Anther color	10 plants, 2 replications	Observation	1:White 2:Whitish yellow 3:Yellow 4:Yellowish brown 5:Brown 6:Reddish Purple 7:Purple 8:Dark purple 9:Other	Color of anthers at flowering
6	Weight of 1000 seeds	10 plants, 2 replications	Measurement	g (round to the 1st decimal place)	Weight of 1000 seeds, estimated by sampling 100 clean seeds from a mixture of 20 plants with four replications

Plant	Warm season grasses	31(06007)	Secondary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Regrowth	10 plants, 2 replications	Observation	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent	Amount of regrowth one to two weeks after the first and second cuttings
2	Overwintering ability	10 plants, 2 replications	Observation	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent	Overwintering ability based on the number of dead plants and the degree of damage to stems and leaves in early spring
3	Plant vigor in spring	10 plants, 2 replications	Observation	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly vigorous 7:Vigorous 8:Very vigorous 9:Extremely vigorous	Amount of growth 30 days after sprouting in early spring
4	Plant vigor in autumn	20 plants, 2 replications	Observation	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly vigorous 7:Vigorous 8:Very vigorous 9:Extremely vigorous	Amount of regrowth after cutting in autumn

Plant	Warm season grasses	31(06007)	Secondary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Disease resistance	10 plants, 2 replications	Observation	1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high	Resistance to diseases based on the degree of infection by artificial inoculation or planting in an infected field (note the name of the disease)
2	Insect resistance	10 plants, 2 replications	Observation	1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high	Resistance to insects based on the degree of damage by artificial inoculation or natural occurrence
3	Persistency	10 plants, 2 replications	Obs.&Measr.	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent	Ratio of survival observed after the first and last cutting in the second year after establishment
4	Ratio of apomixis	10 plants, 2 replications	Obs.&Measr.	0:None 1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high	Ratio of off-types observed in the progeny test or apomixis rate by embryosac analysis
5	Self-fertility rate	10 plants, 2 replications	Obs.&Measr.	0:None 1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high	Rate of self-fertility obtained by bagging each panicles or isolating each individual

Plant	Warm season grasses	31(06007)	Tertiary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Fresh yield of first harvest	2 plots	Measurement	kg/a (integer)	Fresh yield estimated from fresh weight harvested from an area of more than 2 square meters at the first harvest
2	Dry matter ratio of first harvest	2 plots	Measurement	% (round to the 1st decimal place)	Ratio of dry matter estimated by sampling 300-500 g fresh weight at 70 centi degrees for 48 hours at the first harvest
3	Dry matter yield of first harvest	2 plots	Calculation	kg/a (integer)	Dry matter yield of the first harvest calculated by fresh weight x dry matter ratio/100
4	Fresh yield of regrowth	2 plots	Measurement	kg/a (integer)	Fresh yield of regrowth after the first harvest measured as for the first harvest
5	Dry matter ratio of regrowth	2 plots	Calculation	% (round to the 1st decimal place)	Ratio of dry matter of regrowth after the first harvest measured as for the first harvest
6	Dry matter yield of regrowth	2 plots	Measurement	kg/a (integer)	Dry matter yield of regrowth after the first harvest calculated as for the first harvest

Plant	Warm season grasses	31(06007)	Tertiary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Dry matter digestibility	2 plots, 2 replications	Measurement	% (round to the 1st decimal place)	Ratio of digestible dry matter estimated by in vivo or in vitro enzyme method
2	Crude protein	2 plots, 2 replications	Measurement	% (round to the 1st decimal place)	Ratio of crude protein content on dry matter base analyzed by Kjeldahl method or Near lnfra-red Analyzer
3	Acid detergent fiber (ADF)	2 plots, 2 replications	Measurement	% (round to the 1st decimal place)	Ratio of ADF content on dry matter base analyzed by acid detergent-acetone washing
4	Acid detergent lignin (ADL)	2 plots, 2 replications	Measurement	% (round to the 1st decimal place)	Ratio of ADL content on dry matter base analyzed by acid detergent-acetone washing
5	Neutral detergent fiber (NDF)	2 plots, 2 replications	Measurement	% (round to the 1st decimal place)	Ratio of NDF content on dry matter base analyzed by neutral detergent-acetone washing
6	Mono-and oligosaccharids	2 plots, 2 replications	Measurement	% (round to the 2nd decimal place)	Ratio of mono-and oligosaccharide content on dry matter base analyzed by thin layer chromatography after ethanol extraction
7	Alkaloid	2 plots, 2 replications	Measurement	ppm (integer)	Alkaloid content on dry matter base analyzed by thin layer chromatography after extracted with solvent
8	Hydrocyanic acid	2 plots, 2 replications	Measurement	ppm (integer)	Hydrocyanic acid content on dry matter base analyzed by colorimetric analysis with alkali picrate solution
9	Nitrate nitrogen (NO3-N)	2 plots, 2 replications	Measurement	ppm (integer)	Nitrate nitrogen content on dry matter base analyzed by phenol di-sulfuric acid method
10	Intake	2 plots, 2 replications	Obs.&Measr.	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent	Intake per unit time estimated by grazing or free cafeteria feeding

Plant	Warm season grasses	31(06007)	Tertiary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
11	Palatability	2 plots, 2 replications	Obs.&Measr.	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent	Palatability estimated by grazing or free cafeteria feeding