

Plant		Other grasses		465	Primary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Plant type	5 plants	Observation	1:Erect 2:Nearly erect 3:Semi-erect 4:Slightly semi-erect 5:Intermediate 6:Slightly semi-prostrate 7:Semi-prostrate 8:Nearly prostrate 9:Prostrate		Angle that circumjacent stems make with the ground
2	Plant height	5 plants	Measurement	cm (round to the 1st decimal place)		Plant length from the ground to the tip of plant at heading stage or biggest growing stage in the case of no heading
3	Number of stems	5 plants	Obs.&Measr.	1:Almost none 2:Extremely few 3:Very few 4:Few 5:Intermediate 6:Some 7:Many 8:More 9:Most		Number of stems per plant at heading stage or biggest growing stage in the case of no heading
4	Leaf length	5 plants	Measurement	cm (round to the 1st decimal place)		Length of the first leaf blade below flag leaf or matured leaf in case of no heading
5	Leaf width	5 plants	Measurement	mm (round to the 1st decimal place)		Width of the widest part of the first leaf blade below flag leaf or matured leaf in case of no heading

Plant		Other grasses		465	Primary optional character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Culm length	5 plants	Measurement	cm (integer)		Length from the ground to the neck of inflorescence
2	Stem thickness	5 plants	Measurement	mm (integer)		Long diameter of the internode just below the inflorescence on the longest stem at heading stage
3	Date of first heading	5 plants	Observation	date		Average date when the first heading was observed in each plant
4	Inflorescence length	5 plants	Measurement	cm (round to the 1st decimal place)		Length from the neck to the tip of inflorescence
5	Hairiness	5 plants	Observation	1:Extremely little 2:Very little 3:Little 4:Slightly little 5:Intermediate 6:Slightly abundant 7:Abundant 8:Very abundant 9:Extremely abundant		Amount of hairs on leaf blade or sheath
6	Leaf color	5 plants	Observation	1:Extremely yellowish green 2:Very yellowish green 3:Light green 4:Slightly light green 5:Intermediate 6:Slightly dark green 7:Dark green 9:Extremely dark green		Greenness of leaf blades at heading stage
7	Texture of leaves	5 plants	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 estimated by touching
8	Number of serrations of leaf blade	5 plants	Observation	1:Almost none 2:Extremely few 3:Very few 4:Few 5:Intermediate 6:Some 7:Many 8:Very many 9:Extremely many		Size and density of serrations on leaf blade margin
9	Number of drooping leaves	5 plants	Observation	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 drooping leaf blades at heading stage
10	Ratio of stems with inflorescences	5 plants	Measurement	% (round to the 1st decimal place)		Ratio of the number of inflorescent stems to total stems

Plant		Other grasses		465	Primary optional character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
11	Number of inflorescences	5 plants	Measurement	Number of inflorescences /plant (integer)		Number of inflorescences per plant at heading stage
12	Awn length	5 plants	Measurement	mm (integer)		Length of awn
13	Weight of 1000 seeds	5 plants	Measurement	mg (integer)		1000 seeds weight estimated by sampling 50 fully mature and dried seeds in more than 3 replicates

Plant		Other grasses		465	Secondary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Summer survival	5 plants	Observation	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent		Plant vigor in September
2	Overwintering ability	5 plants	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 regrowth and based on the rate of survival after wintering

Plant		Other grasses		465	Secondary optional character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Regrowth	5 plants	Observation	1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent		Regrowth after cutting
2	Plant vigor in autumn	5 plants	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		Vigor based on the amount of growth before wintering
3	Self-fertility	5 plants	Obs.&Measr.	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 seed fertility self-pollinated by bagging or isolation
4	Disease resistance	5 plants	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 damage and the ratio of dead plants by artificial inoculation or when the damage occurred (note the name of disease)
5	Insect resistance	5 plants	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 damage by artificial inoculation or when it occurred (note the name of insect)

Plant		Other grasses		465	Tertiary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Fresh yield of first harvest	3 replications	Measurement	kg/a (integer)		Fresh yield estimated from fresh weight harvested from an area more than 2 square meters within each plot at the first harvest
2	Dry matter ratio of first harvest	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of dry matter measured 300 g by sampling of fresh weight and drying at 70 centi degrees for 48 hours at the first harvest
3	Dry matter yield of first harvest	3 replications	Measurement	kg/a (integer)		Dry matter yield calculated by fresh yield x dry matter ratio/100 for the first harvest

Plant		Other grasses		465	Tertiary optional character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Fresh yield of regrowth	3 replications	Measurement	kg/a (integer)		Fresh yield of regrowth after the first harvest measured in the same way as that of the first harvest
2	Dry matter ratio of regrowth	3 replications	Measurement	% (round to the 1st decimal place)		Average ratio of dry matter of regrowth measured in the same way as that of the first harvest
3	Dry matter yield of regrowth	3 replications	Measurement	kg/a (integer)		Total of dry matter yield of regrowth estimated in the same way as that of the first harvest
4	Dry matter digestibility	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of digestible dry matter discerned by in vitro enzyme method or near infrared spectroscopy (NIRS)
5	Crude protein content	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of crude protein content on a dry matter base analyzed by Kjeldahl method or near infrared spectroscopy (NIRS)
6	Acid detergent fiber (ADF)	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of ADF content on a dry matter base analyzed by acid detergent-acetone washing
7	Neutral detergent fiber (NDF)	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of NDF content on a dry matter base analyzed by neutral detergent-acetone washing
8	Acid detergent lignin (ADL)	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of ADL content on a dry matter base analyzed by acid detergent-acetone washing
9	Mono- and oligosaccharides	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of mono- and oligosaccharide content on a dry matter base by phenol-sulfuric acid method after ethanol extraction
10	Intake	3 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		Degree of intake estimated under grazing or free cafeteria feeding

Plant		Other grasses		465	Tertiary optional character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
11	Grazing adaptability	3 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		Grazing adaptability estimated comprehensively from intake, persistency, etc. under grazing test
12	Seed productivity	3 replications	Measurement	g/square meter (round to the 1st decimal place)		Weight of pure seeds per 1 square meter
13	Seed weight per inflorescence	3 replications	Measurement	mg /inflorescence (integer)		Weight of clean seeds, per inflorescence measured by sampling 20 inflorescences per plot
14	Seed fertility	3 replications	Measurement	% (round to the 1st decimal place)		Ratio of seed or spikelet fertility measured by soft X-ray equipment, sampling more than 20 inflorescences per replication