

Germination methods for forage grasses

Species	Testing method			Length of test (days)
	Media	Pre-treatment	Temperature (°C)	
<i>Agropyron fragile</i>	AG	K	30/20	
<i>Agropyron cristatum</i>	AG	K	30/20	14
<i>Ampelodesmos mauritanicus</i>	AG	/	30/20	
<i>Andropogon gayanus</i>	AG	/	30/20	14
<i>Avena sativa</i>	TP	/	25	
<i>Bothriochloa insculpta</i>	AG	/	35/20	21
<i>Bothriochloa pertusa</i>	AG	/	35/20	21
<i>Brachiaria brizantha</i>	AG	A, K	35/20	
<i>Brachiaria catharticus</i>	AG	/	35/20	
<i>Brachiaria decumbens</i>	AG	A, K	35/20	21
<i>Brachiaria dictyoneura</i>	AG	A, K	35/20	
<i>Brachiaria erectus</i>	AG	/	35/20	
<i>Brachiaria eruciformis</i>	AG	A, K	35/20	
<i>Brachiaria humidicola</i>	AG	A, K	35/20	21
<i>Brachiaria inermis</i>	AG	/	35/20	
<i>Brachiaria jubata</i>	AG	A, K	35/20	
<i>Brachiaria lachnantha</i>	AG	A, K	35/20	
<i>Brachiaria lata</i>	AG	K	35/20	
<i>Brachiaria leptoclados</i>	AG	/	35/20	
<i>Brachiaria mutica</i>	AG	A, K	35/20	21
<i>Brachiaria nigropedata</i>	AG	A, K	35/20	
<i>Brachiaria ramosa</i>	AG	A, K	35/20	
<i>Brachiaria ruziziensis</i>	AG	A, K	35/20	21
<i>Brachiaria subulifolia</i>	AG	A, K	35/20	
<i>Cenchrus biflorus</i>	AG	A, K	35/20	
<i>Cenchrus ciliaris</i>	AG	A, K	35/20	28
<i>Cenchrus ciliaris</i>	TP	S	25	4
<i>Cenchrus prieurii</i>	AG	A, K	35/20	
<i>Cenchrus setigerus</i>	AG	R, K	35/20	
<i>Cenchrus setigerus</i>	TP	S	25	4
<i>Cynodon aethiopicus</i>	AG	R, K	35/20	
<i>Cynodon dactylon</i>	AG	R, K	35/20	21
<i>Cynodon nlemfuensis</i>	AG	R, K	35/20	
<i>Dactylis glomerata</i>	AG	R, K	35/20	
<i>Digitaria argyrotricha</i>	AG	K	35/20	
<i>Digitaria diagonalis</i>	AG	K	35/20	
<i>Digitaria eriantha</i>	AG	K	35/20	
<i>Digitaria velutina</i>	AG	K	35/20	
<i>Echinochloa colona</i>	AG	K	35/20	
<i>Echinochloa crusgavonis</i>	AG	K	35/20	
<i>Echinochloa haploclada</i>	AG	K	35/20	
<i>Echinochloa pyramidalis</i>	AG	K	35/20	
<i>Echinochloa stagnina</i>	AG	K	35/20	
<i>Eleusine coracana</i>	AG	K	35/20	
<i>Eleusine floccifolia</i>	AG	K	35/20	
<i>Eleusine indica</i>	AG	K	35/20	
<i>Eleusine kigeziensis</i>	AG	K	35/20	
<i>Elymus elongatus</i>	AG	K	35/20	
<i>Elymus hispidus</i>	AG	K	35/20	

<i>Elymus smithii</i>	AG	K	35/20	
<i>Elymus trachycaulus</i>	AG	K	35/20	
<i>Eragrostis braunii</i>	AG	K	35/20	
<i>Eragrostis curvula</i>	AG	K	35/20	10
<i>Eragrostis cylindriflora</i>	AG	K	35/20	
<i>Eragrostis echinochloidea</i>	AG	K	35/20	
<i>Eragrostis lehmanniana</i>	AG	K	35/20	
<i>Eragrostis nindensis</i>	AG	K	35/20	
<i>Eragrostis paniciformis</i>	AG	K	35/20	
<i>Eragrostis rotifer</i>	AG	K	35/20	
<i>Eragrostis superba</i>	AG	K	35/20	
<i>Eragrostis tef</i>	AG	K	35/20	
<i>Eragrostis tremula</i>	AG	K	35/20	
<i>Festuca arundinacea</i>	AG	/	35/20	
<i>Festuca pratensis</i>	AG	/	35/20	
<i>Festuca rubra</i>	AG	/	35/20	
<i>Hordeum vulgare</i>	TP	/	25	
<i>Melinis minutiflora</i>	AG	K	35/20	
<i>Panicum maximum</i>	AG	K, B, A	30/20	
<i>Paspalum nicorae</i>	TP	S	25	4
<i>Sorghum bicolor</i>	TP	P	25	10
<i>Triticum secale</i>	TP	/	35/20	
<i>Urochloa mosambicensis</i>	AG	R	30/20	
<i>Urochloa mosambicensis</i>	AG	R	30/20	
<i>x Triticale rimpaii</i>	TP	/	25	
<i>x Triticale rimpaii</i>	TP	/	35/20	
<i>Zea mays</i>	TP	P	25	7

Key:

Media

TP	top of paper
BP	between paper
AG	agar

Pre-treatments

A	scarification 3 min. with concentrated sulphuric acid
B	scarification 10 min. with concentrated sulphuric acid
C	scarification of more than 20 min. with concentrated acid
D	soaking in cold water
H	hot water treatment
K	germination with 0.2% potassium nitrate in medium
L	soaking for 18 hours in potassium nitrate
M	machine scarification with sandpaper
P	pre-chilling at 5°C
Q	pre-chilling at 10°C
R	pre-chilling at 8°C
S	hand scarification with sandpaper or scalpel blade
X	special treatment, see germination sheets
Y	seeds surface-sterilized in 1% sodium hypochlorite

Source

ILS	ILRI standard test
IST	ISTA standard test
EXP	Experimental method

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d
id
d sulphuric acid

for 10 min.