

Plant		Yam		86(08028)	Primary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Growth vigor of plant	5 plants	Observation	1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong		At the most vigorous stage
2	Branching of plant	5 plants	Observation	1:Extremely few 2:Very few 3:Few 4:Slightly few 5:Intermediate 6:Some 7:Many 8:Very many 9:Extremely many		Number of branches at the most vigorous stage
3	Shape of leaf	10 plants	Observation	1:Widely cordate 2:Cordate 3:Deeply cordate 4:Acuminate 9:Other		Of the 15th nodes at the most vigorous stage
4	Size of leaf	10 plants	Observation	1:Extremely small 2:Very small 3:Small 4:Slightly small 5:Intermediate 6:Slightly large 7:Large 8:Very large 9:Extremely large		Of the 15th nodes at the most vigorous stage
5	Formation of aerial tuber	5 plants	Observation	1:Extremely few 2:Very few 3:Few 4:Slightly few 5:Intermediate 6:Slightly profuse 7:Profuse 8:Very profuse 9:Extremely profuse		At harvest time
6	Skin color of tuber	5 plants	Observation	1:Yellow brown 2:Pale brown 3:Brown 4:Black brown 5:Black 6:Red 7:Purple 9:Other		After washing harvested tuber
7	Shape of tuber	5 plants	Observation	1:Lash shaped 2:Long spindle 3:Spindle shaped 4:Cylinder shaped 5:Sake-bottle shaped 6:Fan shaped 7:Hand shaped 8:Globular 9:Massive		At harvest time
8	Flesh color of underground tuber	5 plants	Observation	1:White 2:Cream color 3:Purple red 9:Other		At harvest time

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No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Direction of twinning of stem	5 plants	Observation	1:Clockwise 2:Anticlockwise		At growing stage of stem
2	Cross section of stem	5 plants	Observation	1:Round 2:Square 9:Other		At the most vigorous stage
3	Wing on stem	5 plants	Observation	0:Absent 9:Present		At the most vigorous stage
4	Thickness of stem	5 plants	Measurement	mm (integer)		Stem diameter of the 15th node at the most vigorous stage
5	Color of stem	5 plants	Observation	1:Green 2:Light purple red 3:Purple red 4:Dark purple red 9:Other		Stem color of 15th node at the most vigorous stage
6	Length of leaf	10 leaves	Measurement	cm (integer)		Length of leaf of 15th nodes at the most vigorous stage
7	Width of leaf	10 leaves	Measurement	cm (integer)		Width leaf of 15th nodes at the most vigorous stage
8	Depth of sinus on leaf base	10 leaves	Observation	1:Extremely shallow 2:Very shallow 3:Shallow 4:Slightly shallow 5:Intermediate 6:Slightly deep 7:Deep 8:Very deep 9:Extremely deep		Of 15th nodes at the most vigorous stage
9	Width of sinus on leaf base	10 leaves	Observation	1:Extremely narrow 2:Very narrow 3:Narrow 4:Slightly narrow 5:Intermediate 6:Slightly wide 7:Wide 8:Very wide 9:Extremely wide		Of 15th nodes at the most vigorous stage
10	Sinus of leaf margin	10 leaves	Observation	0:None 1:Extremely small 2:Very small 3:Small 4:Slightly small 5:Intermediate 6:Slightly large 7:Large 8:Very large 9:Extremely large		Of 15th nodes at the most vigorous stage
11	Color of leaf	10 leaves	Observation	1:Yellow green 3:Pale green 5:Green 7:Deep green 9:Other		At the most vigorous stage
12	Length of petiole	10 leaves	Observation	1:Extremely short 2:Very short 3:Short 4:Slightly short 5:Intermediate 6:Slightly long 7:Long 8:Very long 9:Extremely long		Of 15th nodes at the most vigorous stage

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13	Pigmentation of petiole on leaf base	10 leaves	Observation	0:Absent 9:Present		Anthocyanin pigmentation of petiole base of the 15th nodes at the most vigorous stage
14	Setting of opposite leaves	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		Node order of opposite phyllotaxy at the most vigorous stage
15	Shape of aerial tuber	5 plants	Observation	1:Globular 2:Pear 3:Ellipse 4:Flat 9:Other		At harvest time
16	Size of aerial tuber	20 aerial tubers	Observation	1:Extremely small 2:Very small 3:Small 4:Slightly small 5:Intermediate 6:Slightly large 7:Large 8:Very large 9:Extremely large		At harvest time
17	Color of aerial tuber coat	20 aerial tubers	Observation	3:Light brown 5:Brown 7:Dark brown 9:Other		At harvest time
18	Skin texture of tuber	5 plants	Observation	1:Extremely rough 2:Very rough 3:Rough 4:Slightly rough 5:Intermediate 6:Slightly smooth 7:Smooth 8:Very smooth 9:Extremely smooth		At harvest time
19	Number of tubers	5 plants	Observation	1:One 2:Several		At harvest time
20	Length of tuber	5 plants	Observation	1:Extremely short 2:Very short 3:Short 4:Rather short 5:Intermediate 6:Rather long 7:Long 8:Very long 9:Extremely long		At harvest time (elongated line only)
21	Neck length of tuber	5 plants	Observation	1:Extremely short 2:Very short 3:Short 4:Slightly short 5:Intermediate 6:Slightly long 7:Long 8:Very long 9:Extremely long		At harvest time
22	Hairiness on tuber surface	5 plants	Observation	1:Extremely few 2:Very few 3:Few 4:Slightly few 5:Intermediate 6:Some 7:Many 8:Very many 9:Extremely many		At harvest time

Plant		Yam		86(08028)	Secondary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Tolerance to drought	10 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		Degree of withering of leaf in drought condition

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1	Sprouting time	10 plants	Observation	1:Extremely early 2:Very early 3:Early 4:Slightly early 5:Intermediate 6:Slightly late 7:Late 8:Very late 9:Extremely late		In early spring
2	Harvest time	10 plants	Observation	1:Extremely early 2:Very early 3:Early 4:Slightly early 5:Intermediate 6:Slightly late 7:Late 8:Very late 9:Extremely late		
3	Cold tolerance	5 corms	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		After winter
4	Corm storability	5 corms	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		Degree of rot of tuber in the store
5	Resistance to Brown rot	10 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		
6	Resistance to mosaic virus disease	10 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		
7	Resistance to nematoda	10 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		At harvest time
8	Resistance to spider mite	10 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		

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No	Characters		No. of samples		Methods		Rank or measurement unit		Remarks	
1	Flesh quality of tuber		5 plants		Observation		1:Extremely coarse 2:Very coarse 3:Coarse 4:Slightly coarse 5:Intermediate 6:Slightly dense 7:Dense 8:Very dense 9:Extremely dense		Of cut surface	
2	Viscosity of brayed flesh		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		Viscosity of ground flesh of tuber	
3	Browning of flesh (brayed flesh)		5 plants		Observation		1:Extremely little 2:Very little 3:Little 4:Slightly little 5:Intermediate 6:Some 7:Much 8:Very much 9:Extremely much		Degree of browning after 1 hour brayed	