Plant	Western melon	444	Primary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Plant type	5 plants	Observation	2:Self topping 3:Bush 4:Intermediate 5:Normal	
2	Internode length	5 plants	Measurement	cm (round to the 1st decimal place)	Average length of the 10th-15th nodes on the main vine at mature-green fruit stage
3	Leaf blade size length	5 plants	Measurement	cm (round to the 1st decimal place)	Length of the 5th-8th true leaves on the main vine at mature-green fruit stage
4	Sex of flower	5 plants	Observation	1:Androecious 2:Monoecious 3:Trimonoecious 4:Andromonoecious 5:Gynomonoecious 6:Gynoecious 7:Hermaphroditic	
5	Female flower bearing ratio	5 plants	Measurement	% (integer)	Number of female (or hermaphrodite) flowers occurring on the first node of branch vine of the 10th-15th nodes on the main vine in case of the supporting culture and on the first node of tertiary vine in case of the ground culture is counted and expressed in percentage
6	Fruit shape	5 fruits	Observation	1:Ovate 2:Medium elliptic 3:Broad elliptic 4:Circular 5:Quadrangular 6:Oblate 7:Obovate 8:Elongated	Mature fruit
7	Ground color of skin	5 fruits	Observation	1:White 2:Yellow 3:Green 4:Gray	Mature fruit
8	Warts of fruit	5 fruits	Observation	0:Absent 9:Present	Mature fruit
9	Strength of attachment of peduncle at maturity	5 fruits	Observation	1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Medium 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Mature fruit
10	Fruit grooves	5 fruits	Observation	0:Absent 1:Very weakly expressed 2:Weakly expressed 3:Strongly expressed	Mature fruit
11	Crease of fruit surface	5 fruits	Observation	0:Absent 1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Medium 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Mature fruit

Plant	Western melon	444	Primary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
12	Density of cork formation of fruit	5 fruits	Observation	0:None 1:Extremely sparse 2:Very sparse 3:Sparse 4:Slightly sparse 5:Intermediate 6:Slightly dense 7:Dense 8:Very dense 9:Extremely dense	Mature fruit
13	Fruit weight	5 fruits	Measurement	g (integer)	Mature fruit
14	Seed length	20 seeds	Measurement	mm (round to the 1st decimal place)	

Plant	Western melon	444	Primary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Hypocotyl length	5 plants	Measurement	cm (round to the 1st decimal place)	Distance from the soil surface to the base of cotyledon at the first true leaf expanding stage
2	Cotyledon length	5 plants	Measurement	cm (round to the 1st decimal place)	Length of cotyledon at the full expansion time of the first true leaf
3	Cotyledon width	5 plants	Measurement	cm (round to the 1st decimal place)	Width of cotyledon at the full expansion time of the first true leaf
4	Intensity of green color of cotyledon	5 plants	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Observe at the full expansion time of the first true leaf
5	Main vine length	5 plants	Measurement	cm (round to the 1st decimal place)	Distance from the base to the tip of the main vine just before the pinching operation of the earliest entry
6	Main vine diameter	5 plants	Measurement	cm (round to the 1st decimal place)	Diameter of the main vine at the center between the 10th and 11th nodes at mature-green fruit stage
7	Density of pubescence on main vine	5 plants	Observation	0:Absent 1:Extremely sparse 2:Very sparse 3:Sparse 4:Slightly sparse 5:Intermediate 6:Slightly dense 7:Dense 8:Very dense 9:Extremely dense	Observe at mature-green fruit stage
8	Leaf width	5 plants	Measurement	cm (round to the 1st decimal place)	Width of the 5th-8th true leaves on the main vine at mature-green fruit stage
9	Intensity of green color of leaf blade	5 plants	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Observe the 5th-8th true leaves on the main vine at mature- green fruit stage
10	Development of lobes of leaf blade	5 plants	Observation	1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Medium 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Observe the 5th-8th true leaves on the main vine at mature- green fruit stage

Plant	Western melon	444	Primary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
11	Length of terminal lobe of leaf blade	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	Observe the 5th-8th true leaves on the main vine at mature- green fruit stage
12	Number of leaves	5 plants	Measurement	* (round to the 1st decimal place)	Number of leaves on the main vine just before the pinching operation of the earliest entry
13	Leaf shape	5 plants	Observation	1:Round 2:Slightly round 3:Intermediate 4:Slightly angle 5:Angle	Observe the 5th-8th true leaves on the main vine at mature- green fruit stage
14	Serration of leaf margin	5 plants	Observation	0:Absent 9:Present	Observe the 5th-8th true leaves on the main vine at mature- green fruit stage
15	Attitude of petiole	5 plants	Observation	1:Elect 3:Semi-elect 5:Horizontal	Observe the 5th-8th true leaves on the main vine at mature- green fruit stage
16	Petiole length	5 plants	Measurement	cm (round to the 1st decimal place)	Petiole length of the 5th-8th true leaves on the main vine at mature-green fruit stage
17	Female flower bearing habit	5 plants	Observation	1:Primary vine 3:Primary and secondary vines 5:Whole vine 7:Secondary and tertiary vine 9:Tertiary vine	Female flower bearing on the primary, secondary and tertiary vines
18	Hue of green color of young fruit skin	5 fruits	Observation	1:Whitish green 2:Yellowish green 3:Green 4:Grayish green	Observe at three weeks after pollination
19	Intensity of green color of young fruit skin	5 fruits	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Observe at three weeks after pollination
20	Density of dots of young fruit	5 fruits	Observation	0:Absent 1:Extremely sparse 2:Very sparse 3:Sparse 4:Slightly sparse 5:Intermediate 6:Slightly dense 7:Dense 8:Very dense 9:Extremely dense	Observe at three weeks after pollination
21	Size of dots of young fruit	5 fruits	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	Observe at three weeks after pollination

Plant	Western melon	444	Primary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
22	Contrast of dot color/ground color of young fruit	5 fruits	Observation	1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Medium 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Observe at three weeks after pollination
23	Conspicuousness of groove coloring of young fruit	5 fruits	Observation	0:Absent 1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Observe at three weeks after pollination
24	Intensity of groove coloring of young fruit	5 fruits	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Observe at three weeks after pollination
25	Peduncle length of young fruit	5 fruits	Measurement	cm (round to the 1st decimal place)	Measure at three weeks after pollination
26	Thickness of peduncle of young fruit	5 fruits	Measurement	mm (round to the 1st decimal place)	Measure diameter of central part of peduncle at three weeks after pollination
27	Extension of darker area around peduncle of young fruit	5 fruits	Observation	0:Absent 1:Extremely small 2:Very small 3:Small 4:Slightly small 5:Intermediate 6:Slightly large 7:Large 8:Very large 9:Extremely large	Observe at three weeks after pollination
28	Change of skin color from young fruit to maturity	5 fruits	Observation	1:Early in fruit development 2:Late in fruit development 3:Very late in fruit development or no change	
29	Fruit length	5 fruits	Measurement	cm (round to the 1st decimal place)	Mature fruit
30	Fruit diameter	5 fruits	Measurement	cm (round to the 1st decimal place)	Mature fruit
31	Fruit length / diameter (Fruit shape index)	5 fruits	Measurement	* (round to the 2nd decimal place)	Mature fruit
32	Position of maximum diameter of fruit	5 fruits	Observation	1:Toward stem end 2:At middle 3:Toward blossom end	Mature fruit

Plant	Western melon	444	Primary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
33	Intensity of ground color of fruit skin	5 fruits	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Mature fruit
34	Density of dots of fruit	5 fruits	Observation	0:Absent 1:Extremely sparse 2:Very sparse 3:Sparse 4:Slightly sparse 5:Intermediate 6:Slightly dense 7:Dense 8:Very dense 9:Extremely dense	Mature fruit
35	Size of dots of fruit	5 fruits	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	Mature fruit
36	Color of dots of fruit	5 fruits	Observation	1:White 2:Yellow 3:Green	Mature fruit
37	Intensity of color of dots of fruit	5 fruits	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Mature fruit
38	Density of patches of fruit	5 fruits	Observation	0:Absent 1:Extremely sparse 2:Very sparse 3:Sparse 4:Slightly sparse 5:Intermediate 6:Slightly dense 7:Dense 8:Very dense 9:Extremely dense	Mature fruit, different from dots
39	Size of patches of fruit	5 fruits	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	Mature fruit
40	Shape of stem-end of fruit	5 fruits	Observation	1:Pointed 2:Rounded 3:Truncate	Mature fruit
41	Shape of blossom-end of fruit	5 fruits	Observation	1:Pointed 2:Rounded 3:Truncate	Mature fruit
42	Size of pistil scar of fruit	5 fruits	Measurement	cm (round to the 1st decimal place)	Mature fruit

Plant	Western melon	444	Primary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
43	Depth of fruit grooves	5 fruits	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	Mature fruit
44	Color of fruit grooves	5 fruits	Observation	1:White 2:Yellow 3:Green	Mature fruit
45	Thickness of cork layer of fruit	5 fruits	Observation	1:Extremely thin 2:Very thin 3:Thin 4:Slightly thin 5:Intermediate 6:Slightly thick 7:Thick 8:Very thick 9:Extremely thick	Mature fruit
46	Pattern of cork formation of fruit	5 fruits	Observation	1:Dots only 2:Dots and linear 3:Linear only 4:Linear and netted 5:Netted only	Mature fruit
47	Rate of change of fruit skin color from maturity to over maturity	5 fruits	Observation	0:Absent 1:Extremely slow 2:Very slow 3:Slow 4:Slightly slow 5:Intermediate 6:Slightly fast 7:Fast 8:Very fast 9:Extremely fast	Mature fruit
48	Peduncle length	5 fruits	Measurement	cm (round to the 1st decimal place)	Mature fruit
49	Peduncle diameter	5 fruits	Measurement	mm (round to the 1st decimal place)	Mature fruit
50	Hue of color of fruit skin at over maturity	5 fruits	Observation	1:Yellow 2:Orangish yellow 3:Creamish	Only varieties with change of skin color from maturity to over maturity
51	Intensity of yellow color of fruit skin at over maturity	5 fruits	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Only varieties with change of skin color from maturity to over maturity and with yellow or orangish yellow color of skin
52	Seed width	20 seeds	Measurement	mm (round to the 1st decimal place)	
53	Seed shape	20 seeds	Observation	1:Not pine-nut shape 2:Pine-nut shape	
54	Seed color	20 seeds	Observation	1:Whitish 2:Creamish	

Plant	Western melon	444	Secondary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Time of female flowering	5 plants	Obs.&Measr.	1:Extremely early 2:Very early 3:Early 4:Slightly early 5:Medium 6:Slightly late 7:Late 8:Very late 9:Extremely late	

Plant	Western melon	444	Secondary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Time of male flowering	5 plants	Obs.&Measr.	1:Extremely early 2:Very early 3:Early 4:Slightly early 5:Medium 6:Slightly late 7:Late 8:Very late 9:Extremely late	
2	Resistance to fusarium wilt	10 plants	Observation	0:Absent 9:Present	Resistance to Fusarium oxysporum f. sp. melonis Race 0, race 1, race 2 and race 1-2. Artificial inoculation for young seedling or natural infection in field.
3	Resistance to powdery mildew (Podosphaera xanthii)	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Resistance to powdery mildew (Sphaerotheca fuliginea (Podosphaera xanthii)). Artificial inoculation for young seedling or natural infection in field.
4	Resistance to powdery mildew (Golovinomyces cichoracearum)	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Resistance to powdery mildew (Erysiphe cichoracearum (Golovinomyces cichoracearum)). Artificial inoculation for young seedling or natural infection in field.
5	Resistance to colonization by Aphis gossypii	10 plants	Observation	0:Absent 9:Present	Resistance to colonization by Aphis gossypii. Artificial inoculation for young seedling or natural infection in field.
6	Resistance to zucchini yellow mosaic virus	10 plants	Observation	0:Absent 9:Present	Resistance to Zucchini Yellow Mosaic Virus. Artificial inoculation for young seedling or natural infection in field.
7	Resistance to papaya ring spot virus (PRSV)	10 plants	Observation	0:Absent 9:Present	Resistance to Papaya Ring Spot Virus (PRSV). Artificial inoculation for young seedling or natural infection in field.
8	Resistance to melon necrotic spot virus (MNSV)	10 plants	Observation	0:Absent 9:Present	Resistance to Melon Necrotic Spot Virus (MNSV). Artificial inoculation for young seedling or natural infection in field.

Plant	Western melon	444	Secondary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
9	Resistance to cucumber mosaic virus (CMV)	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Resistance to Cucumber Mosaic Virus (CMV). Artificial inoculation for young seedling or natural infection in field.
10	Resistance to gummy stem blight	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
11	Resistance to downy mildew	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
12	Resistance to water-melon mosaic virus (WMV)	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
13	Resistance to cucumber green mottle mosaic virus (CGMMV)	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
14	Resistance to phytophthora rot	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
15	Resistance to root knot nematode	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
16	Resistance to spider mite	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
17	Resistance to Thrips palmi	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field
18	Degree of physical leaf withering	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	Observe after fruiting time

Plant	Western melon	444	Secondary optional character	

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
*19	Resistance to Melon yellow spot virus	10 plants	Observation	1:Susceptible 2:Moderately resistant 3:Highly resistant	Artificial inoculation for young seedling or natural infection in field

* Unlisted item in Genebank Descriptor

Plant	Western melon	444	Tertiary essential character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Flesh thickness	5 fruits	Measurement	mm (round to the 1st decimal place)	Mature fruit
2	Flesh color	5 fruits	Observation	1:White 2:Greenish white 3:Green 4:Yellowish white 5:Orange 6:Reddish Orange	Mature fruit
3	Flesh texture	5 fruits	Sensory	3:Mealy 5:Fragile 7:Non mealy 9:Melting	Evaluate at the optimum consumption time
4	Fruit flavor	5 fruits	Sensory	1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Evaluate at the optimum consumption time
5	Eating quality	5 fruits	Sensory	1:Conomon type 3:Makuwa type 5:Net melon type 7:Winter melon type 9:Other	Evaluate at the optimum consumption time
6	Total soluble solids of flesh	5 fruits	Measurement	% (round to the 1st decimal place)	Brix of central part of fresh at maturity time
7	Time of ripening	5 fruits	Obs.&Measr.	1:Extremely early 2:Very early 3:Early 4:Slightly early 5:Medium 6:Slightly late 7:Late 8:Very late 9:Extremely late	Days from pollination to harvest
8	Shelf life of fruit	5 fruits	Obs.&Measr.	1:Extremely short 3:Short 5:Intermediate 7:Long 9:Extremely long	Days from harvesting to the optimum consumption time of fruit preserved at 25 centidegree. Extremely short: 1-2 days, short: 3-5 days, intermediate: 6-10 days, long: 11-20 days, extremely long: over 21 days

Plant	Western melon	444	Tertiary optional character

No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Flesh firmness	5 fruits	Sensory	1:Extremely soft 2:Very soft 3:Soft 4:Slightly soft 5:Intermediate 6:Slightly firm 7:Firm 8:Very firm 9:Extremely firm	Evaluate at the optimum consumption time
2	Acidity of fruit	5 fruits	Sensory	0:None 1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Mature fruit
3	Bitterness of fruit	5 fruits	Sensory	0:None 1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Mature fruit
4	Intensity of orange color of flesh	5 fruits	Observation	1:Extremely light 2:Very light 3:Light 4:Slightly light 5:Medium 6:Slightly dark 7:Dark 8:Very dark 9:Extremely dark	Mature fruit. Only varieties with orange color of flesh.
5	Secondary salmon coloring of flesh	5 fruits	Observation	0:None 1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong 8:Very strong 9:Extremely strong	Mature fruit. Only varieties with white color of flesh.
6	Quantity of fibers in flesh	5 fruits	Sensory	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	Mature fruit
7	Tendency of fruit to ferment	5 fruits	Obs.&Measr.	1:Extremely easy 2:Very easy 3:Easy 4:Slightly easy 5:Intermediate 6:Slightly difficult 7:Difficult 8:Very difficult 9:Extremely difficult	Preserve at 25 degrees C