

Plant		Cherimoya		118(07023)	Primary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Color of shoot	10 shoots	Observation	1:Grayish green 3:Gray 5:Brown		Middle part of medium sized one-year-old dormant shoot
2	Size of leaf blade	10 leaves	Measurement	Square centimeters (integer)		Leaf size (Length and width) at 5-7th node is measured in September. Calculate approximate value of $\pi \times L \times B/4$ by 10 leaves.
3	Shape of leaf blade	10 leaves	Measurement	(integer)		Explained by leaf blade index=length of leaf blade/width of leaf blade x 100
4	Degree of waving in margin of mature leaf	10 leaves	Observation	1:Slight 3:Intermediate 5:Prominent		Investigate the waving in margin of mature leaf. Scarce:El Bumpo, intermediate:White, prominent:Big sister
5	Length of petal	10 flowers	Measurement	mm (integer)		Mean of three petals of a flower just before anthesis (female stage) which is produced on the first node of sprouting shoot
6	Width of petal	10 flowers	Measurement	mm (round to the 1st decimal place)		Mean of three petals of a flower just before anthesis (female stage) which is produced on the first node of sprouting shoot
7	Thickness of petal	10 flowers	Measurement	mm (round to the 1st decimal place)		Mean of three petals of a flower just before anthesis (female stage) which is produced on the first node of sprouting shoot
8	Degree of twisting on petal	10 flowers	Observation	1:Slight 3:Intermediate 5:Strong		Investigate the twisting of the petals on a flower 2-3 days before anthesis. Slight:White, intermediate:Big sister, strong:Villapark
9	Degree of curving on petal	10 flowers	Observation	1:Slight 3:Intermediate 5:Strong		Investigate the curving of the petals on a flower just before anthesis. Slight:Booth, intermediate:White, strong:Chaffey

Plant		Cherimoya		118(07023)	Primary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
10	Transverse diameter of young fruit	10 flowers	Measurement	mm (round to the 1st decimal place)		Mean of the transverse diameter of normal young fruits at anthesis (male stage)
11	Longitudinal diameter of young fruit	10 flowers	Measurement	mm (round to the 1st decimal place)		Mean of the longitudinal diameter of normal young fruits at anthesis (male stage)
12	Fruit shape index of young fruit	10 flowers	Measurement	(integer)		(Longitudinal diameter/transverse diameter) x 100
13	Length of peduncle	10 flowers	Measurement	mm (integer)		Mean of the length of peduncle on normal flowers at anthesis (male stage)
14	Number of flowers which are produced on a tree	trees	Observation	1:Few 3:Intermediate 5:Many		Total number of both the leafless and leafy inflorescences produces on a tree. Few:Chaffey, intermediate:White, many:Sabor
15	Number of leafy inflorescences produced on a tree	trees	Observation	1:Few 3:Intermediate 5:Many		Number of leafy inflorescences on 1-7th node of sprouting shoot on a tree. Few:Chaffey, intermediate:Pierce, many:Big sister
16	Fresh fruit weight	10 fruits	Measurement	g (integer)		Average fresh fruit weight of 10 representative mature fruits
17	Fruit shape in longitudinal section	10 fruits	Observation	0:Hemispherical 1:Cordate 2:Long cornical, shouldered 3:Short conical 4:Oblong		Investigate the same fruits used in fresh fruit weight
18	Skin color of fruit at maturity	10 fruits	Observation	0:Yellow green 1:Pale yellow green 2:White green 3:Pale green 4:Green		Ground color of fruit surface at harvesting. Yellow green:Pierce, pale yellow green:El Bumpo, white green:Honey hart, pale green:White, green:Big sister
19	Fruit surface charcter	10 fruits	Observation	0:Smooth 1:Fingerprinted 2:Unbonate 3:Tuberculate 4:Mammillate		Fruit surface character at maturity

Plant		Cherimoya		118(07023)	Primary essential character
No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
20	Thickness of fruit skin	10 fruits	Sensory	1:Thin 3:Intermediate 5:Thick	Evaluate fruit skin thickness by finger touching after ripening (shipping quality). Thin:El Bumpo, intermediate:Big sister, thick:Bayott
21	Length of receptacle	10 fruits	Measurement	mm (round to the 1st decimal place)	Average length of receptacle, Measure after ripening
22	Size of seed	10 fruits	Observation	1:Small 3:Intermediate 5:Large	Means of longitudinal diameter x transverse diameter at the equatorial part of the fruit. Small:Spain, intermediate:Villapark, large:Big sister

Plant		Cherimoya		118(07023)	Secondary essential character	
No	Characters	No. of samples	Methods	Rank or measurement unit		Remarks
1	Resining and black spots on the fruit	2 trees	Observation	0:None 1:Light 3:Intermediate 5:Severe		Resining on the fruit skin during the rapid fruit growth period. Light:El Bumpo, intermediate:Big sister, severe:Booth
2	Fruit ripening time (Maturity time)	2 trees	Observation	1:Early 3:Intermediate 5:Late		The fruits which were pollinated in May are used as the standard. The ripening time is 10-15 days after beginning of the secondary fruit growth.
3	Bearing age	2 trees	Observation	1:Early 3:Intermediate 5:Late		Bearing age when the tree starts bearing fruit. Early:Big sister, intermediate:White, late:Ott
4	Cracking (splitting) I	2 trees	Observation	0:Non 1:Light 3:Intermediate 5:Severe		Radial cracking from the fruit stalk at fruit maturation. Light:less than 5% (Big sister), intermediate:5-14% (Chaffey), severe:at least 15% (White)
5	Cracking & splitting II	2 trees	Observation	0:None 1:Little 3:Intermediate 5:Much		Zigzag cracking of the fruit in the fall. Light:less than 5% (White), intermediate:5-14% (Sabor), severe:at least 15% (White)
6	Physiological fruit drop during fruit elongation period	2 trees	Observation	0:Non 1:Little 3:Intermediate 5:Much		Fruit drop during the first fruit elongation period. Light:White, intermediate:Big sister, severe:Sabor

Plant		Cherimoya		118(07023)	Tertiary essential character
No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Amount of fiber in flesh	10 fruits	Sensory	1:Little 3:Intermediate 5:Much	Evaluated by difficulty of seed separation from flesh after ripening has been completed. Little:El Bumpo, intermediate:Chaffey, much:White
2	Amount of stone cells in fresh	10 fruits	Sensory	1:Few 3:Intermediate 5:Many	Evaluated by eating mature fruit after ripening has been completed. Few:White, intermediate:Pierce, many:Sabor
3	Juiciness	10 fruits	Sensory	1:Low 3:Intermediate 5:High	Evaluated by eating mature fruit after ripening has been completed. Low:Pierce, intermediate:Big sister, high:El Bumpo
4	Juice brix	10 fruits	Measurement	% (round to the 1st decimal place)	Mean of 2 measurements at the equatorial cross section of each fruit. Brix of juice is measured by refractometer after ripening has been completed
5	Juice acidity	10 fruits	Measurement	pH (round to the 1st decimal place)	Mean of 2 measurements at the equatorial cross section of each fruit. pH of juice is measured after ripening has been completed
6	Aroma	10 fruits	Sensory	1:Little 3:Intermediate 5:Much	Evaluated by eating mature fruit after ripening has been completed. Little:Big sister, intermediate:Miguel, much:White
7	Yield	2 trees	Measurement	(round to the 1st decimal place)	Yield of a tree at full productive age

Plant	Cherimoya		118(07023)	Tertiary optional character	
No	Characters	No. of samples	Methods	Rank or measurement unit	Remarks
1	Ethylene production rate	5 fruits	Measurement	(Micro liters)/(kg hr) (integer)	Mean of peak production rate at ripening of 5 fruits (micro liters)/(kg hr)