

Star Fruit (*Averrhoa carambola* L.)

1 The subgroup discussed Malaysia's National Test Guideline for Star Fruit, presented by Dr. Rahman bin Milan and agreed the following:

<b>Check list of changes agreed during the TWG</b>		
1.0	to delete "all vegetatively propagated"	
2.2	The material.....grafts or grafted trees. The rootstock of the varieties should be agreed by the authority.	
3.1.1	To reword "...two independent growing cycle"	
3.1.2	to reword "The growing cycle is considered to be the period ranging from the beginning of flowering of individual flower or inflorescence through fruit development and concluding with the harvest of fruit from corresponding individual flower or inflorescence."	
4.2.2	To edit ".....5 plants, no off-type is allowed"	
5.3	Grouping characteristic:  (a) Flower: position of stigma in relation to anthers (Char. 19) (b) Petal: distribution of anthocyanin coloration (c) Fruit: shape (Char. 26) (d) Fruit: apical point (e) Fruit: colour of skin (Char. 32)	
7(a)	To be deleted	
7(b)	To be deleted	
7(c)	To reword "Leaf: .....should be made on the middle third of one-year old shoot.	
7(d)	To reword "Leaflet: all observations should be made on the middle pair of leaflets.	
7(e)	To reword "Petal and sepal: All observations should be made at the time of anthesis.	
7(f)	To reword " Fruit:.....made on the terminal fruit at the optimum eating stage maturity"	
Char. 1	To add (+) To read state 2 as "semi upright" To read as "QN" To add (*)	Explanatory note: to observe on less than 5 years old tree
Char. 2	To read "One year old shoot: intensity of brown colour" To delete "brown" in state To add "medium" at state 2 To add (*)	Explanatory note: to observe at the middle third of the branch
Char. 3	To be deleted	
Char. 4	To read "Young shoot: anthocyanin coloration" To state "absent or very weak, weak, medium, strong" To note "1, 3, 5, 7"	
Char. 5	To be deleted	
Char. 6	To read "Leaf: length of petiole"	
Char. 7	To read "Leaflet: position in relation to petiole" To state "above, same, below" To read note for state same "B3, B8, B10" To add (*)	To move after char. 14
Char. 8	To read "Leaf: attitude in relation to shoot"	To move to

	To add (*)	after char. 6
Char. 9	To read "Leaf: intensity of green colour on upper side" To state "light, medium, dark" To note: "3, 5, 7" To add (*)	To move after char. 6
Char. 10	To read " Leaflet: colour of petiolule" To add (*)	
Char. 11	To add (+) To reverse the state order to "ovate, elliptic" To add state "oblong, obovate" To read as "MG" To delete "(c)" To add (*)	Indonesia to provide EV for ovate.  To add illustration.  Thailand to check on oblong and obovate.
Char. 12	To delete "(c)" To read MS/MG	
Char. 13	To delete "(d)" To read MS/MG	
Char. 14	To state "low, medium, high"	
Char. 15	To read "Terminal leaflet: glossiness on upper surface" To state "absent or weak, medium, strong" To read note "1, 3, 5" To read "QN"	
Char. 16	To read "Terminal leaflet: undulation of margin"	
Char. 17	To read "Terminal leaflet: profile of cross section" To add state 1 ".....or slightly concave" To note "1, 2, 3" To note EV for state 2, B10; 3, B17"	
<b>Char. 18</b>	<b>To be deleted</b>	
Char. 19	To read "Flower: position of stigma in relation to anther" To add (+) and illustration To read as "QN" To read state 1 "far above" and EV "B2, B11" To delete state 2 "same level as anther" To read state 3 "far below" and EV "B17" To add (*)	
Char. 20	To read "Sepal: amount of anthocyanin coloration" To read state "low, medium, high"	
Char. 21	To read "Petal: shape of apex" To delete state "acute, obtuse, obcordate"	
Char. 22	To read "Petal: intensity of anthocyanin coloration"	MAS to provide EV
Char. 23	To read "Petal: curvature" To state " straight or weakly recurved, moderate recurve, strongly recurved" To read EV for state 1, "B2"; state 3, "B17"	Explanatory note: 7(e)
Char. 24	To read " <u>Very young fruit</u> : presence of anthocyanin on wing" To note EV for state 1,"B10, B17" and state 2, "B5"	
Char. 25	To read " <u>Very young fruit</u> : colour" To add state "reddish and green" To read as "QN"	

	<p>To add "medium" in state 2  To add note "4" for state reddish and green  To add EV for state 1, B2; 2, B17; 3, B8; 4, B5  To add (*)</p>	
Char. 26.	<p>To reverse state "ovate, elliptic"  To reverse EV for state 1 and 2  To add (*)</p>	
Char. 27	<p>To read "Fruit: apical point"  To add (+) and illustration  To read "PQ"  To add (*)</p>	
Char. 28	<p>To read "Fruit: profile of wing in cross section"  To add (+) and illustration  To add state 1 "...or slightly convex"  To delete state 2  To add EV for state 1, "B2"; 3, "B10"; 4, "B17"  To read "QN"</p>	<p>Illustration of fruit wing.   To add arrow to show wing.</p>
Char. 29	<p>To read "Fruit: width of wing in cross section"  To add (+) and illustration  To read "MG" and "QN"</p>	<p>To use the same illustration for char. 28.   MAS to check on EV.</p>
Char.30	<p>Move to before char. 26  To add (+) and illustration  To add (*)  To read "MS/VG"</p>	
Char. 31	<p>Move to before char. 26  To add (+) and illustration  To add (*)  To read "MS/VG"</p>	
Char. 32	<p>To add state "Greenish yellow"  To add (*)</p>	<p>INA to provide state, EV and picture.   MAS need to compare the colour provided by INA is also exist in MAS.</p>
Char. 33	<p>To read "Fruit: gradient of skin colour from apex to base"  To state "absent or very weak, weak, medium, strong"  To note "1, 3, 5, 7"  To add EV for state 1, "B10", 4, "B17"  To add (+) and illustration  To read "QN"</p>	
Char. 34	<p>To read "Fruit: presence of white markings"  To read "QL"</p>	
Char. 35	<p>To read "Fruit: colour of rib"  To add (+) and illustration  To add EV for state 2, "B10.", 3, "B11"  To add "dark" for state 3  To read "PQ"  To add (*)</p>	<p>To include whole picture of whole fruit to indicate rib</p>

Char. 36	To read "Fruit: surface To state "smooth or slightly blistered, moderately blistered, strongly blistered" To note "1, 3, 5" To read "QN"	MAS to provide EV
Char. 37	To read "Fruit: texture of flesh" To change state 3 to "coarse"	
Char. 38	To read "Fruit: sweetness" To read "MG/VG" To add EV for state 1, "B6", 2, "B10, B2", 3, "B17" To add (*)	
Char. 39	To read "Fruit: number of seeds" To delete numbers in each state To note EV for state 1, "B5", 2, "B17", 3, "B2, B11" To add (*)	
Ad. (4)	To be deleted	
Ad. (7)	To change wording according to rewording in characteristic 7	
Ad. (21)	To change wording according to rewording in characteristic 21 To delete illustration for state acute, obtuse and obcordate	
Ad. 26	To reverse illustration for state 1 and 2	

<b>Proposed New Characteristic</b>		
Char. 5		It is proposed to delete the characteristics.
New	<b>Seed: intensity of brown colour</b>	To read state "light, medium, dark" To add EV for state 1, "B2", 3, "B10" MAS to provide EV for state 2
New	<b>Fruit: height of wing</b>	To provide illustration To read "VG" and "QN" MAS to provide EV
New	<b>One year old shoot: number of lenticels</b>	MAS to confirm with the characteristic  To state "few, medium, many" To note "3, 5, 7" MAS to provide EV To provide illustration To read "QN" and "VG"
New	<b>Petal: distribution of anthocyanin colouration</b>	To read state "only lower 3 <sup>rd</sup> , lower and middle 3 <sup>rd</sup> , throughout" To note "1, 2, 3" To read EV for state 1, B2, state 2, B10, state 3 B17 To read "QN" and "VG" To add (*)
New	<b>Fruit: ratio of length to width</b>	To read "low, medium, high" To note "3, 5, 7" To read "MS"