


**Technical Working Party for Fruit Crops****TWF/53/5****Fifty-Third Session  
Virtual meeting, July 11 to 15, 2022****Original:** English  
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**THE ASSESSMENT OF COLOR IN FRUIT CROPS***Document prepared an expert from New Zealand**Disclaimer: this document does not represent UPOV policies or guidance*

The annex to this document contains a copy of a presentation “The Assessment of Colour in Fruit Crops A Different Approach?”, made by an expert from New Zealand, at the fifty-third session of the TWF.


[Annex follows]



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## The Assessment of Colour in Fruit Crops A Different Approach?

*TWF 53<sup>rd</sup> session 2022*



MINISTRY OF BUSINESS,  
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New Zealand Government




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## Royal Horticultural Society Colour Charts

- Widely used for DUS testing in other species, mainly ornamentals
- Already included in standard wording in Test Guidelines
- Recognised as posing difficulties for mixed or overlaid colours
- Not widely used for DUS testing of fruit crops

*But why is this so?*

*Not all plant organs in fruit species have mixed or overlaid colour expression*



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## The Objective

A small project was carried out to assess if RHS Colour Charts could provide improved description quality and a greater precision in comparison with states of expression in existing TG colour characteristics

Raspberry (*Rubus ideaus*) and  
Apricot (*Prunus armeniaca*)  
were selected as subjects.

## Raspberry

Six protected varieties were evaluated at fruit harvest for the characteristic;

TG/43/7	35. Fruit: colour	yellow 1
		orange 2
		light red 3
		medium red 4
		dark red 5
		medium purple 6
		dark purple 7

## Record for the varieties Fruit: colour of flesh

RHS Colour Chart	Colour Group	Recorded state of expression
184BC	medium brown purple	medium red
187B	dark purple red	medium to dark red
183B	dark brown purple	medium red
183C	dark brown purple	medium red
187B	dark purple red	dark red
184AB	dark brown purple	medium red

### Brown Purple Fruit Medium Red



### Purple Red Fruit Dark Red



## Questions

Do the existing range of expression accurately represent the colour of fruit?

Is there improved discrimination using brown purple and dark purple red? Compare with the discrimination between medium red and dark red from existing characteristic.

Does this improve the quality of the description?

## Apricot

Four protected varieties were evaluated at fruit harvest for the characteristic;

TG/70/9 Rev.

49. Fruit: colour of flesh	whitish green 1
	white 2
	cream 3
	light orange 4
	medium orange 5
	dark orange 6

## Record for the for varieties Fruit: ground colour of skin

RHS Colour Chart	Colour Group	Recorded state of expression
26B	medium orange	medium orange
N163B	orange brown	medium orange
N163A	orange brown	medium orange
N163B	orange brown	medium orange

### Orange Brown Medium Orange



### Orange Medium Orange



## Questions

Do the existing range of expression accurately represent the colour of flesh?

All varieties are currently described as medium orange flesh

Colour Charts indicate discrimination between orange brown and orange?

Does this improve the quality of the description?

Distinctness due to flesh colour when currently there is none?

## Next Steps?

The two samples provided indicated further assessment may be worthwhile.

There is a need for:

Further variety samples

Additional species

Additional colour characteristics

Experience from other authorities

**IS THIS A TOPIC THE TWF WOULD LIKE TO TAKE FURTHER?**