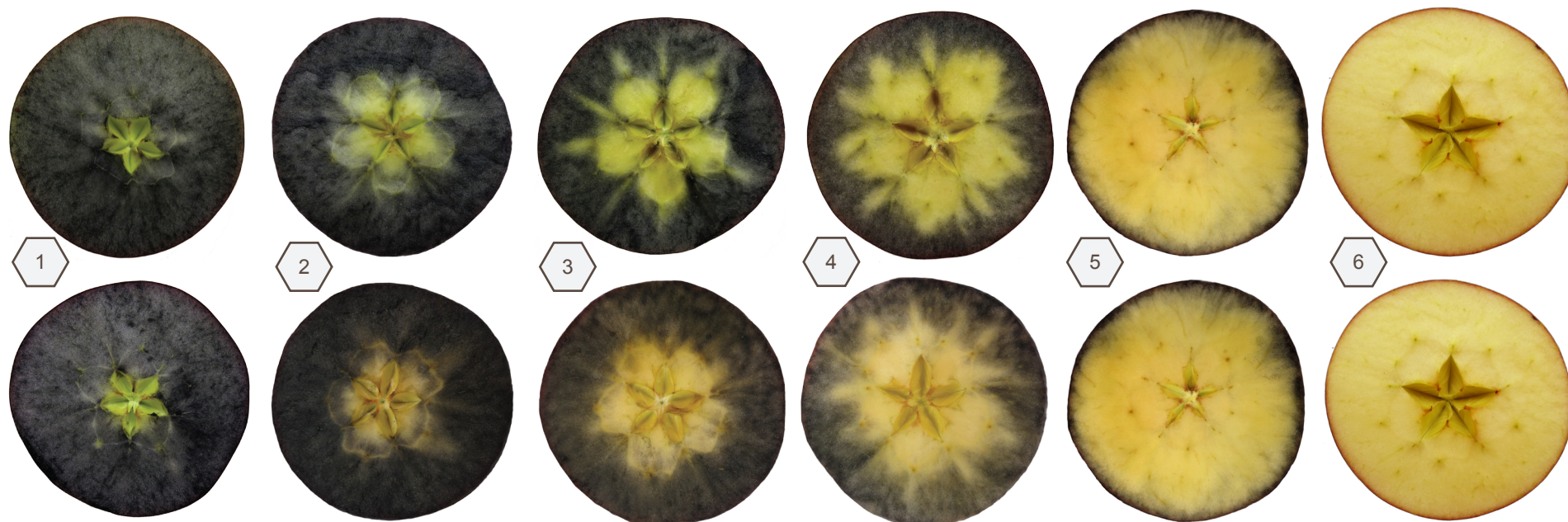


COSMIC CRISP® cv. WA 38 STARCH SCALE

Starch is still present in the apple if cut surface is dark when iodine solution is applied. In this scale, 1 indicates immature and 6 indicates fully mature fruit. COSMIC CRISP® develops two predominant patterns. The **flower pattern** is characterized by five “flower petals,” which are growing with advanced maturity. The **radial pattern** can be compared with a “sunrise.” Larger parts of the surface are clearing with advanced maturity. The patterns appear in different ratios and the ratio varies from year to year.

✿ FLOWER PATTERN



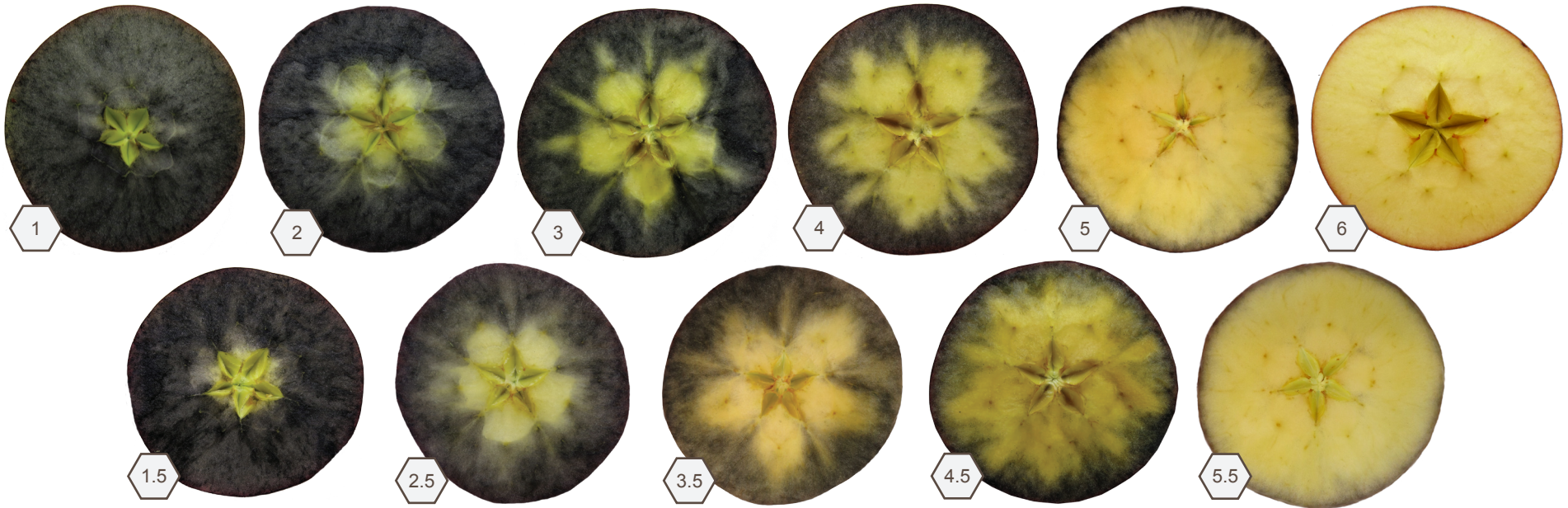
✱ RADIAL PATTERN



INSTRUCTIONS FOR USE

1. Stain apples as soon as possible after samples have been collected.
2. Cut apples in half through the equator.
3. Immediately dip, spray, or roll the cut apple surfaces completely with iodine solution.
4. Allow starch patterns to fully develop. It may take up to one hour to have the pattern fully developed, but starch readings are possible in less than 5 min.
5. Arrange the apples from most to least stained.
6. Compare each cut surface with the scale. Every apple is assigned a whole or half number.

In this scale, 1 indicates immature fruit and 6 indicates fully ripe fruit. An apple with no starch clearing in the core and cortex is assigned number 1. If the core is half clear and the cortex is dark, the apple is assigned with number 2. When the core and the vascular bundles are free of staining, the apple will be assigned with number 3. Apples with 50% cleared cortex are assigned with number 4. 10% stain remaining under the skin means the apple will be assigned with number 5. When the core and cortex stay clear, the apple is assigned with number 6. Samples with starch clearing between any whole or half number, will be assigned with the closest higher number.



 **FLOWER PATTERN**
WITH HALF STEPS

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