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The Cutinization of Apple Skins in Relation to Their Keeping Qualities and Their Environment

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THE CUTINIZATION OF APPLE SKINS IN RELATION TO
THEIR KEEPING QUALITIES AND THEIR
ENVIRONMENT.

(*ABSTRACT*)

WINIFRED PERRY.

The apples were obtained from Iowa, New York, Arkansas and Washington, so as to present different growing conditions. The following varieties were prepared by the paraffine method, sectioned and drawn with the camera lucida: Jonathan from Iowa, Washington and New York; Gano from Iowa; Grimes from Arkansas, Washington and Iowa; Winesap from Iowa and Washington; Ben Davis from Arkansas and New York; Salome from Iowa and Washington; Hubbardston from New York; Black Twig and Willow Twig from Iowa; Fallawater, Twenty Ounce, Wealthy, Baldwin, Greening, Fameuse, and Maiden Blush from New York; Collins Red from Arkansas; and the Delicious from Iowa.

For convenience the work was divided into four divisions, as follows:

1. The correlation of the amount of cutinization with the keeping quality.—There is a relation between the thickness of the cutinized area and the records of the keeping qualities of the different varieties of apples studied.

2. The correlation of the cutinization with the moisture in the different states during the growing period, or April to October inclusive.—“Perhaps the most important factor to which life is subjected is the moisture relation,” says Prof. W. J. Young in his article on Variation in the Apple. And there is undoubtedly a relationship between the amount of cutinization and the moisture during the growing period.

3. The correlation of the cutinization and the mean temperature of the different states during the growing period.—A high temperature is not always followed by a thickly cutinized portion, so the statement that there is a correlation between the cutinization and the temperature cannot be made at this time.

4. The correlation of the cutinization with the percentage of clear, partly cloudy and cloudy days in the different states

during the growing period.—The sun does not seem to be an important factor in the cutinization of apple skins, while it is in the color development of the fruit.

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