Further Notes on the Seedless Fruits of the Common Persimmon—Diospyros virginiana L.

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Persimmon trees grow in two different locations on the campus of Indiana University. All of these are pistillate. One group of trees stands near the center of the quadrangle, surrounded on all sides by large and small forest trees, chiefly of maple, elm and beech. Another tree grows at the edge of the grounds near a street. Other persimmon trees, both staminate and pistillate, occur in the town, the nearest being two blocks distant.

This year the tree near the street bore heavily, all the fruits being fine, large berries with seeds. The trees near the center of the quadrangle bore fruits, but in smaller quantities per tree. These fruits were smaller, ripening naturally later and containing, as a rule, fewer seeds per berry. Moreover, there were a number of purely seedless fruits. The proportion of fruits with only one or two seeds was much greater than in the case of the former tree. Seedless fruits and those with only one or two seeds are, as a rule, much smaller than those having several seeds.

According to experiments thus far carried out the seedless fruits of the common persimmon are due to a lack of pollination or, at least, of fertilization, and the seedless berries, which have the same flavor as those with seeds, represent cases of parthenocarpy. The trees near the center of the quadrangle, being surrounded by other trees, are doubtless less readily found by bees. The trees out on the farms in this county which bear seedless fruits in noticeable quantities are usually those that are some distance from staminate trees. To my knowledge there is no seedless strain of the common persimmon in Indiana.

An attempt to ripen the fruit artificially was successful. The method used is an exceedingly simple one, and consists in enclosing the fruits in Mason jars and allowing them to remain in a cool place in the basement, for from ten days to two weeks. The lids of the jars were screwed on without rubbers.

The fruits were taken from the trees soon after the leaves had begun to fall. The berries were fully developed, with very firm flesh, and astringent beyond description. When taken from the jars at the expira-

tion of the time mentioned, the fruits were soft, juicy and without a trace of astringency.

According to Lloyd (Science, N. S., 34: 924-928, 1911) the ripening is brought about or hastened by the action of carbon dioxide, produced, of course, by the fruits themselves in respiration.