

1947

## Note on the Occurrence of D-Manitol in Native Persimmon

Irving T. Beach  
*College of the Ozarks*

Follow this and additional works at: <http://scholarworks.uark.edu/jaas>

 Part of the [Organic Chemistry Commons](#)

---

### Recommended Citation

Beach, Irving T. (1947) "Note on the Occurrence of D-Manitol in Native Persimmon," *Journal of the Arkansas Academy of Science*: Vol. 2, Article 19.

Available at: <http://scholarworks.uark.edu/jaas/vol2/iss1/19>

This article is available for use under the Creative Commons license: Attribution-NoDerivatives 4.0 International (CC BY-ND 4.0). Users are able to read, download, copy, print, distribute, search, link to the full texts of these articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author.

This Article is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Journal of the Arkansas Academy of Science by an authorized editor of ScholarWorks@UARK. For more information, please contact [scholar@uark.edu](mailto:scholar@uark.edu), [ccmiddle@uark.edu](mailto:ccmiddle@uark.edu).

A NOTE ON THE OCCURRENCE OF D-MANNITOL IN THE NATIVE PERSIMMON

Iving T. Beach, *College of the Ozarks, Clarksville*

The literature records very little work on the constituents of the native persimmon, *Diospyros Virginiana* L. The Japanese persimmon, *D. kaki* L., has received more attention. In 1929 Matoe Iwata (1) noted the presence of D-mannitol in that fruit.

For the present investigation about sixteen kilograms of ripe fruit was used. After the addition of an equal volume of water the mixture was allowed to ferment, and then the pulp partly separated through cheesecloth. Distillation of the liquor yielded the equivalent of 284 ml. 100% alcohol. The undistilled liquor was filtered to remove the remainder of the pulp, and the distillation continued. The distillate which came off at 100°C. was acid to litmus. A Declaux determination showed the acid constituent to be acetic. The liquid in the distilling flask developed a deep red color and as it became concentrated a chocolate-brown material separated. The heating was interrupted from time to time to filter off this material. Finally the precipitation of this substance ceased and a colorless crystalline precipitate appeared. The concentration was continued, with occasional removal of the crystalline product, until the residue was a dark brown viscous material having an acid reaction. The crystals were readily purified by recrystallization from hot 50% alcohol. They agreed in melting point with the value for mannitol (166°C.) and gave the tests described for that substance by Mullikan. The yield was about 150 grams purified product, or almost 1%.

Mannitol was the only constituent positively identified. The chocolate colored insoluble product is possibly a phlobaphene resulting from the tannin in the fruit. This behavior is characteristic of one class of tannins.

- (1) Bull. Inst. Phys-Chem. Research (Tokyo) 8, 220-2 (1929);  
Chem. Abs. 23, 3520 (1929).

