

## Topic Page: [starch](#)

Definition: **starch** from *Dictionary of Energy*

*Materials.* any of a group of polysaccharides that store energy in plants, having the general formula  $(C_6H_{10}O_5)_n$ , occurring in the form of minute granules in seeds, tubers, and other parts of plants; it forms an important constituent of rice, corn, wheat, beans, potatoes, and other vegetable foods. Starch is a highly amorphous polymer that is readily broken down into glucose by human and animal enzyme systems.

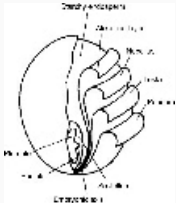


Image from:

[Structure of the cereal caryopsis,... in The Encyclopedia of Seeds: Science, Technology and Uses](#)

Summary Article: **starch**

From *The Columbia Encyclopedia*

white, odorless, tasteless, carbohydrate powder. It plays a vital role in the biochemistry of both plants and animals and has important commercial uses. In green plants starch is produced by photosynthesis; it is one of the chief forms in which plants store food. It is stored most abundantly in tubers (e.g., the white potato), roots (e.g., the sweet potato), seeds, and fruits; it appears in the form of grains that differ in size, shape, and markings in various plants. The plant source can usually be identified by microscopic examination of the starch grains. Starch obtained by animals from plants is stored in the animal body in the form of glycogen. Digestive processes in both plants and animals convert starch to glucose, a source of energy. Starch is one of the major nutrients in the human diet. Its presence in foods and other substances can be detected by the blue-black color produced when iodine solution is added to a sample of the material to be tested. By treatment with hot water, starch granules have been shown to consist of at least two components, known as amylopectin and amylose. Amylopectin is a branched glucose polymer; amylose is a linear glucose polymer. Commercially starch is prepared chiefly from corn and potatoes. Starch is widely used for sizing paper and textiles, for stiffening laundered fabrics, in the manufacture of food products, and in making dextrin. In addition to its other uses, cornstarch is a source of corn syrup, of which large quantities are used in making table syrup, preserves, ice cream, and other confections. Corn sugar (glucose) is also derived from cornstarch. See also arrowroot.

**APA**

Chicago

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**MLA**

starch. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from <https://search.credoreference.com/content/topic/starch>



*The Columbia Encyclopedia*, © Columbia University Press 2018



## APA

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## Chicago

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## Harvard

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## MLA

"starch." *The Columbia Encyclopedia*, Paul Lagasse, and Columbia University, Columbia University Press, 8th edition, 2018. *Credo Reference*, <https://search.credoreference.com/content/topic/starch>. Accessed 17 Sep. 2019.