

# Corn syrup

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**Corn syrup** is a [syrup](#), made using [cornstarch](#) as a feedstock, and composed mainly of [glucose](#). A series of two [enzymatic](#) reactions are used to convert the [corn starch](#) to corn syrup. Its major uses in commercially-prepared foods are as a thickener, sweetener, and for its moisture-retaining ([humectant](#)) properties which keep foods moist and help to maintain freshness.<sup>[1]</sup>

Corn syrup is used to soften texture, add volume, prohibit crystallization and enhance flavour. Because [cane sugar](#) quotas raise the price of sugar in the United States<sup>[2]</sup>, domestically produced corn syrup and [high fructose corn syrup](#) are a less expensive alternative often used in American-made processed and mass-produced foods, candies, and sodas to help control costs.<sup>[1]</sup>

The more general term *glucose syrup* is often used [synonymously](#) with [corn syrup](#), since the former is most commonly made from [corn starch](#).<sup>[3]</sup> Technically, glucose syrup is any liquid starch [hydrolysate](#) of mono, di, and higher [saccharides](#)<sup>[4]</sup> and can be made from any sources of [starch](#); [wheat](#), [rice](#) and [potatoes](#) are the most common sources.

Glucose syrup and dextrose are produced from number 2 yellow dent corn. When wet milled, a [bushel](#) of corn will yield an average of 31.5 pounds of starch, which in turn will yield about 33.3 pounds of glucose syrup, or dextrose. Thus, it takes about 60 bushels of corn to produce one short ton of either glucose syrup or [dextrose](#).<sup>[5]</sup>

The viscosity and sweetness of the syrup depends on the extent to which the hydrolysis reaction has been carried out. To distinguish different grades of syrup, they are rated according to their "dextrose equivalent" (DE).

Glucose syrup and dextrose were the primary corn sweeteners in the United States prior to the expansion of [High-fructose corn syrup](#) (HFCS) production. HFCS is a variant in which other enzymes are used to convert some of the glucose into [fructose](#). The resulting syrup is sweeter and more soluble. Corn syrup is also available as a retail product. The most popular retail corn syrup product in the United States is Karo Syrup, a fructose/glucose syrup.<sup>[6]</sup>