

## **WHAT IS HIGH FRUCTOSE CORN SYRUP (HFCS)**

It is a sweetener that is produced from corn. It was designed specifically as a more cost-effective replacement for sugar for the food industry. Its primary usage currently is the beverage industry. Additionally, it has become the major replacement for sugar in the beekeeping community.

## **BENEFITS**

Prior to the availability of HFCS most beekeepers fed liquid sugar (O-Sucrose) which is produced by combining Dry Sucrose (Granulated table sugar) with water. Sugar's major disadvantage to HFCS is its higher base price, as well as the fact that HFCS is able to hold a higher solid content. Sugar, when mixed with water, the highest solid content that you can maintain is 66.5% whereas HFCS is able to hold a solid content of 77%. This in turn can equate to a major savings and "more bang for your buck" per delivery when you are ordering syrup by the tanker load.

Another desirable property of HFCS is its ability to retain moisture which in turn make it less prone to crystallization. This is due to the fact that in terms of chemical structure the sugars in HFCS are not bound together like in sucrose. This is very important when producing pollen patties because it will aid them in staying soft and moist once placed in the hive as opposed to using only O-Sucrose which will dry out and result in a hard, brittle patty that will crumble and fall to the bottom board.

## **HFCS Vs. "CORN SYRUP" (DEXTROSE EQUIVALENT)**

One major concern when feeding your bees is to not confuse HFCS with "Corn Syrup" (DE) they are 2 very different products. HFCS is produced through an enzymatic process which leaves no starches, only sugar, which is ideal for bees. "Corn Syrup" (DE) is the old-style syrup, which is produced through an acid hydrolyzation process. This process leaves a high starch content which can actually be toxic to your bees.