

1. Sucrose

1. **Sucrose** is a *disaccharide*. It is commonly called *cane-sugar*. It is the *table sugar*. It is formed of an α -*D*-**glucose** and β -*D*-**fructose**.

2. It is the common sugar and widely distributed in all photosynthetic plants.

3. It is found in sugarcane, beet root, apple, pine apple, carrot and ripe fruits.

4. It is the only food stuff used in the crystalline form.

5. It is the predominant form in which sugar is transported from leaves to the other organs of the plants through their vascular system.

6. Sucrose on hydrolysis by dilute acids or the enzyme invertase (sucrase) gives invert sugar. It is a mixture of glucose and fructose. Glucose is *dextrorotatory*. Fructose is *levorotatory*. There is inversion of the sign of rotation. This process is called *inversion* and the mixture is called *invert sugar*.

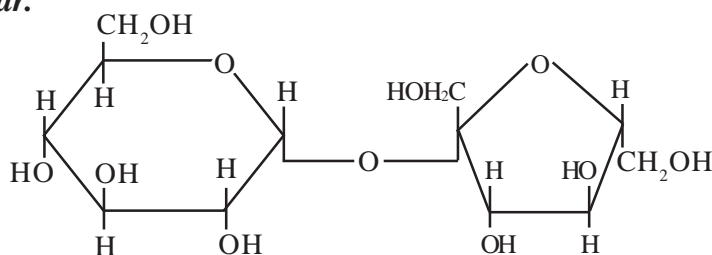


Fig.9.34: Formation of sucrose.

7. Sucrose is formed by the combination of α -*D*-**glucose** and β -*D*-**fructose** with the elimination of a molecule of water.

8. It is sweeter than lactose, maltose and glucose.

9. Sucrose does not possess mutarotation and is not a *reducing sugar*. It is not reactive.

2. Lactose

1. It is a disaccharide purely of animal origin.

2. It is commonly called *milk sugar*. It is present in milk of mammals.