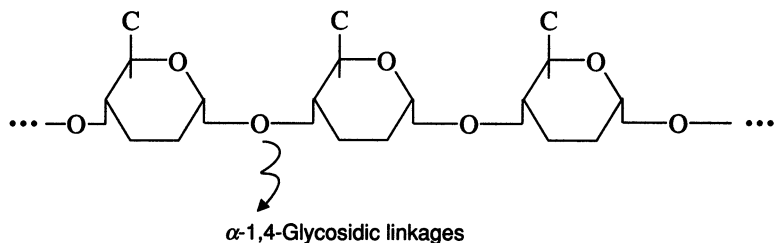


Lactose is found in milk and whey, while sucrose is the major sugar in photosynthetic plants. Whey utilization remains an important biotechnological challenge, and sucrose is often a major component in artificial growth media.

*Polysaccharides* are formed by the condensation of more than two monosaccharides by glycosidic bonds. The polysaccharide processing industry makes extensive use of enzymatic processing and biochemical engineering.

Amylose is a straight chain of glucose molecules linked by  $\alpha$ -1,4 glycosidic linkages. The molecular weight (MW) of amylose is between several thousand and one-half million daltons.



Amylose is water insoluble and constitutes about 20% of starch.

Amylopectin is a branched chain of D-glucose molecules. Branching occurs between the glycosidic—OH of one chain and the —6 carbon of another glucose, which is called  $\alpha$ -1,6 glycosidic linkage.