

ESU 009– Cereal products as functional foods

Lecture 26



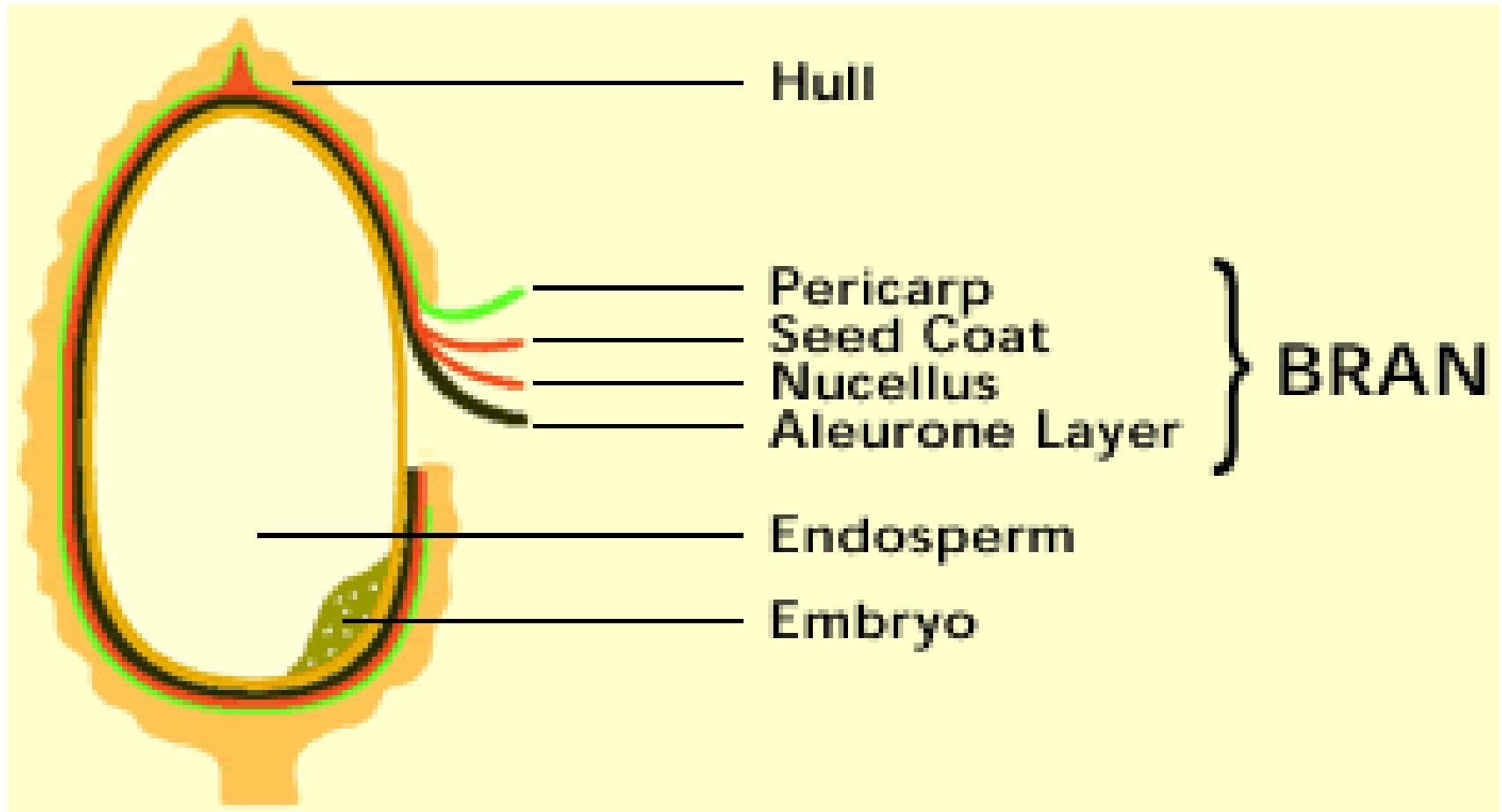


- A **cereal** is grass, a member of the monocot family cultivated for the edible components of its grain.
- Cereal grain are composed of the endosperm, germ and bran.
- Cereal grains are grown in greater quantities and provide more food energy worldwide.
- Cereals are rich source of vitamins, minerals, carbohydrate, fats and protein.
- When cereal grain is refined by the removal of the bran and germs, the remaining endosperm is mostly carbohydrate.

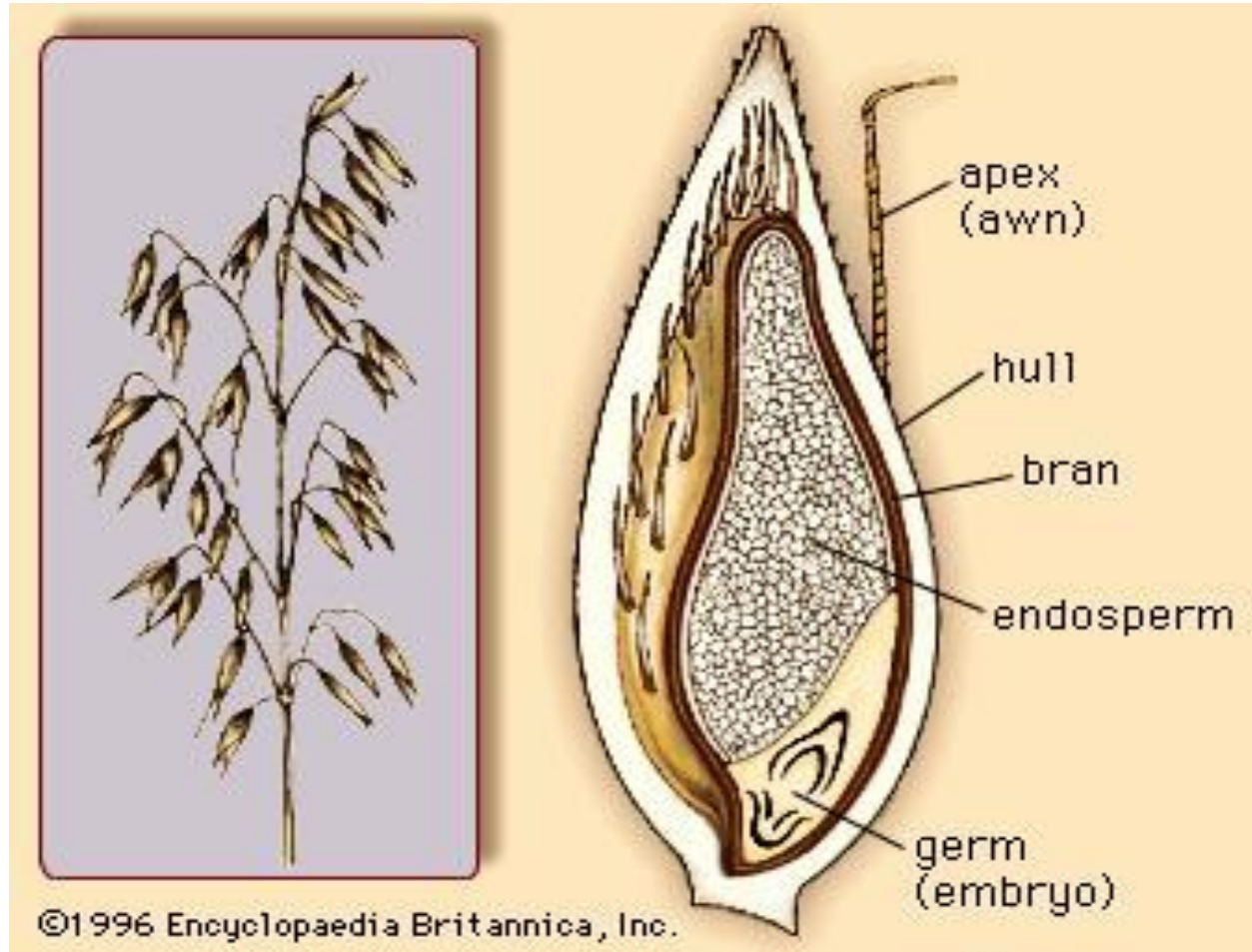
Major cereals consumed are:



Structure of cereal grain



Structure of oat



- Oats (*Avena sativa*) are a cereal commonly eaten in the form of oatmeal or rolled oats.
- Oats are loaded with dietary fiber (containing more than any other grain) and have a range of healthy cholesterol-lowering properties.

Functional compounds of Oats

- beta-glucan
- Manganese
- Selenium
- Phosphorus
- Fiber
- Magnesium
- Zinc
- Carotenoids
- Tocols (Vitamin E)
- Flavonoids
- Avenanthramides - a class of polyphenols.

Health benefits of oats

- Oats may reduce the risk of coronary artery disease
- Oats may help lower the risk of colorectal cancer
- Oats may help lower blood pressure
- Stabilizes blood sugar and reduces risk of **diabetes**

- Oats Help Control Blood Pressure
- Oats contains unique antioxidants beneficial for heart disease
- Enhances immune response to disease
- Oats for celiac disease

Thank you

Dr. Rahul Thory
School of Bioengineering and Food Technology
Shoolini University
Village Bajhol, Solan (H.P)

+91 9466266628(Mob No.)
rahul.560@shooliniuniversity.com