

ENZYME APPLICATION IN INDUSTRY



Dairy Food Industry

1. Protease as coagulant in cheese production
2. Lactase involved in hydrolysis of lactose to give lactose-free milk products

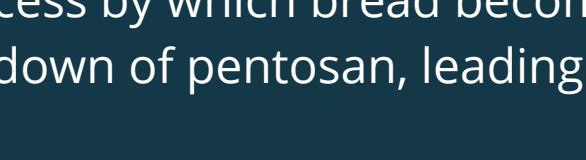
Brewing

1. Cellulase and maltogenic amylases involved in liquefaction, clarification and to supplement malt enzymes

Wine, Juice and Alcohol Production



Amyloglucosidase converts starch to sugar
Pectinase increases in yield and juice clarification
Glucose oxidase involved in oxygen removal



Baking

1. Maltogen amylase delays process by which bread becomes stale
2. Pentosanase involved in breakdown of pentosan, leading to reduced gluten production

Meat

1. Protease and papain involved in meat tenderising

Starch

1. Phytase, glucoamylases, pullulanase and hemicellulases involved in modification and conversion of dextrose or high fructose syrups
2. Amylase increases bread softness and volume
3. Cellulase involved in starch liquefaction and saccharification

Lipid



1. Lipase involved in cheese ripening, improving quality of edible oils and fats

Pectinase

1. It improves the yield and quality of essential oils (pepper and cardamom)
2. It involved in preparation of modified pectins used as functional food ingredients

Tannase

1. It releases gallic acid and glucose

2. It removes tannins from a green tea infusion and involved in preparation of instant tea

