

A close-up photograph of a bowl filled with white, fluffy popcorn. The bowl's rim is yellow with a white pattern of stylized leaves or feathers. The background is a plain, light color.

Off flavours in beer

DIACETYL

OR ARTIFICIAL BUTTER FLAVOUR

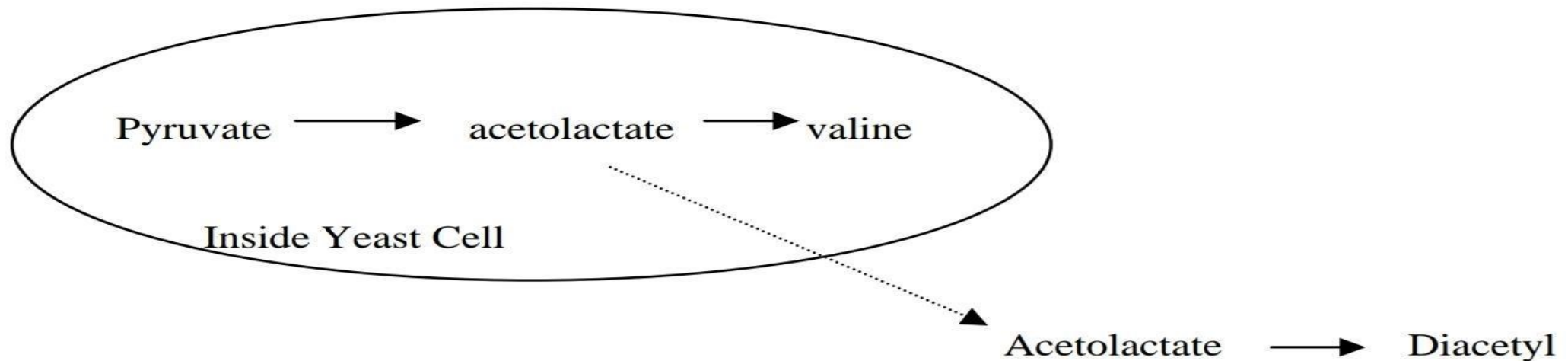
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TASTE / AROMA

- Buttery
- Popcorn
- Butterscotch
- Mouthfeel – slick/oily

WHERE DOES IT COME FROM?

- Yeast produce diacetyl during the lag and growth phase by a step in the production of an amino acid called valine
- The intermediate compound to valine is acetolactate which leaks from the yeast cell to form diacetyl



FACTORS THAT INCREASE DIACETYL PRODUCTION

- Yeast strain
- Yeast strain (the other yeast strain)
- Aeration
- Low levels of yeast nutrient (yeast need to produce more amino acids)
- High fermentation temperatures
- Time
- Contamination (Lactic acid bacteria, Lactobacillus, pediococcus)

PREVENTION

- Pitch Rate and aeration.
- Selection of yeast strain.
- Diacetyl rest: Essential in lager fermentations. Raise the temperature by 6-10c in the final 1/3 to 3/4 of fermentation for 2-5 days.
- Time: Diacetyl is reabsorbed in the presence of yeast during maturation. Leave the beer for at least 3 days after FG.
- Premature racking: Diacetyl can be synthesised by oxidation of acetolactate (tasteless).
- Sanitation

IT'S IN MY BEER, WHAT NOW?

- Once removed from the yeast it's too late
- It's bottled: Not much. Rouse yeast and store warm. Pray!
- It's kegged: Pitch a few grams of rehydrated yeast, store warm for a few weeks.