

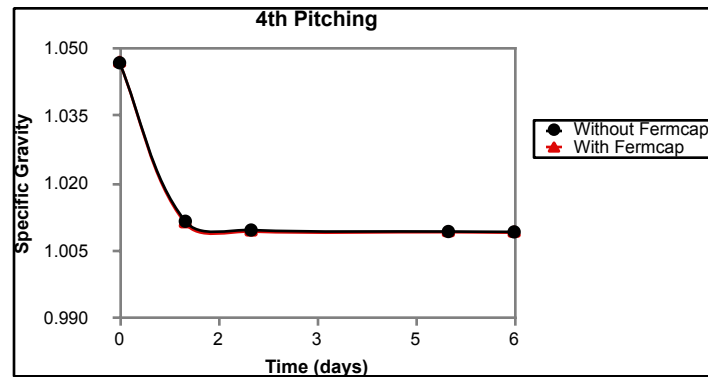
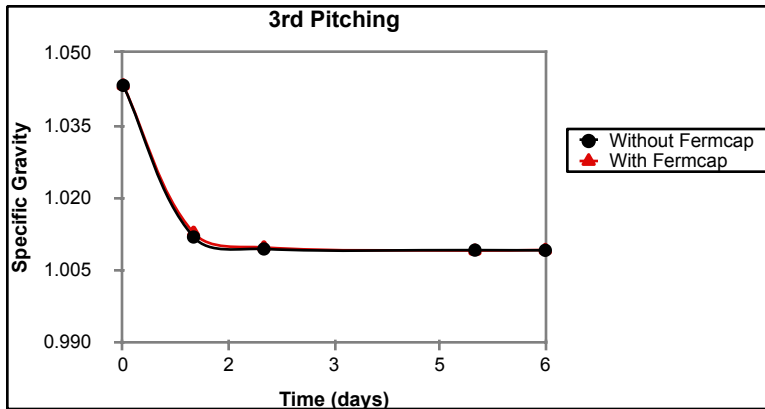
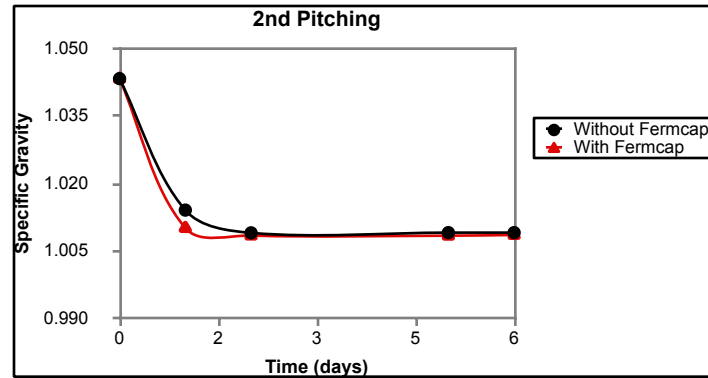
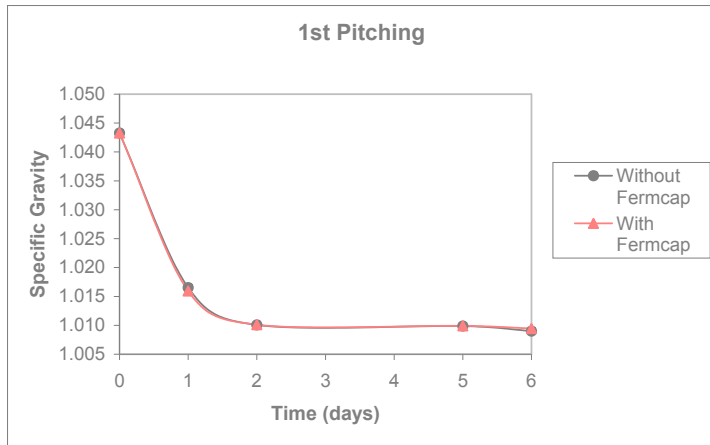
# Kerry Bio-Science

FermCap



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# FermCap – Repitching experiments



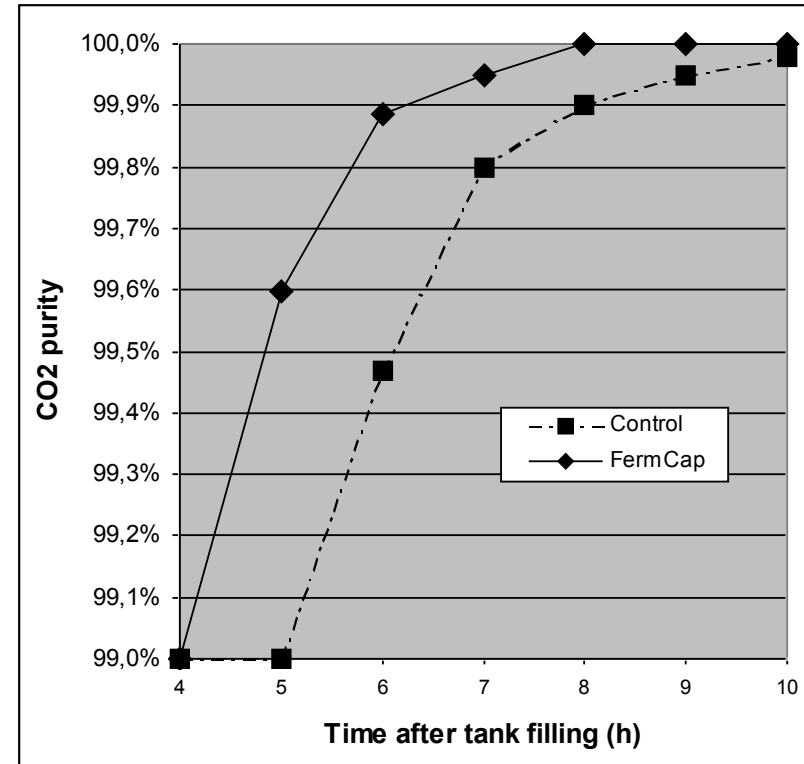
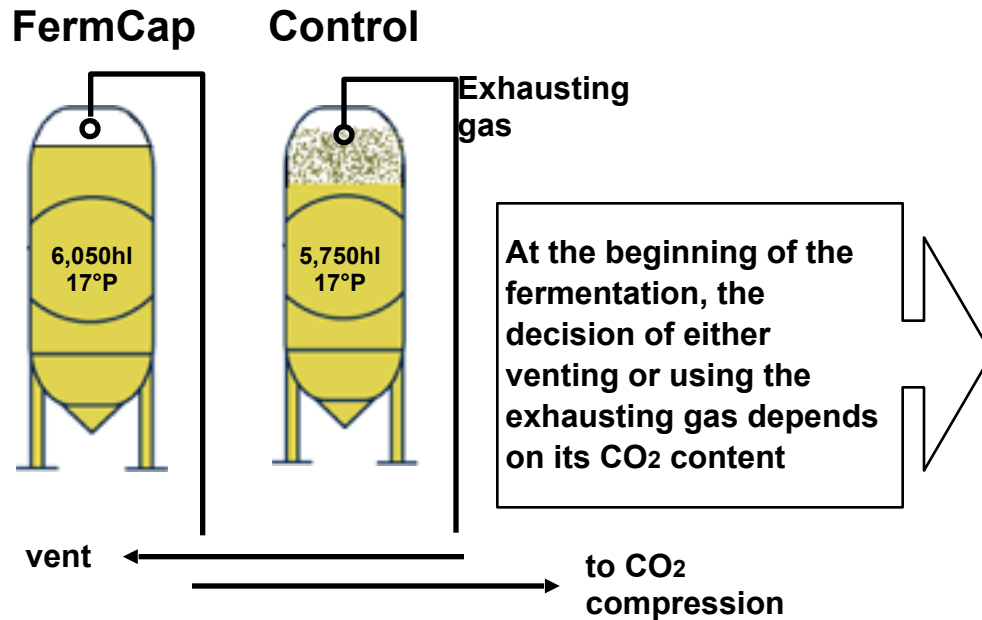
# FermCap – Repitching experiments

	Control	Fermcap treated
1 <sup>st</sup> Pitching	111 114	126 128
2 <sup>nd</sup> Pitching	90 87	102 103
3 <sup>rd</sup> Pitching	110 112	124 121
4 <sup>th</sup> Pitching	94 91	106 105

Following removal of the yeast for repeated pitching, the fully fermented beers were decanted, filtered through a horizontal leaf filter and checked for foam stability.

**Head retention values/foam collapse time = Rudin(secs)**

# FermCap benefits: earlier CO<sub>2</sub> recovery



The desired CO<sub>2</sub> purity is reached earlier in the fermentations using FermCap:

- there is no entrapped air in the foam (because there is virtually no foam !)
- the headspace represents a smaller volume and is faster to replace it by the pure CO<sub>2</sub> produced by the yeast

# Determination of residual polydimethylsiloxane (PDMS) in Fermcap treated beer and yeast:

- Nuclear magnetic resonance spectroscopy was used for the quantitative determination of PDMS in beer and yeast samples.
  - 60ppm (6g/hl) of Fermcap is equivalent to 12ppm of PDMS
  - A small amount of PDMS (0.18ppm) was detected in the supernatant of the Fermcap treated beer, whereas a larger amount was present in the yeast (5.82ppm).
  - The remaining PDMS (6ppm) was therefore adsorbed onto the vessel walls.
  - Following filtration the residual PDMS that was present in the supernatant is completely removed.

# Determination of residual polydimethylsiloxane (PDMS) in Fermcap treated beer and yeast:

- Conclusions:

- Fermcap S is classified as a "Process Aid" because of its novel feature of being completely removed from the beer under normal processing conditions.
- These studies show that Fermcap is adsorbed onto the surface of the yeast, vessel walls and filter media.
- The use of NMR accurate to 0.02ppm PDMS cannot detect Fermcap S in finished beer.

- **KBS has a complete range of products for the brewer**
- **Products are fully Kosher approved and GRAS/Food approved.**
- **Packaging from 25kg –1000kg(liquids). Also possibility of customised packaging & tap fittings on IBCs.**
- **KBS provides full tech support on products (lab and brewery optimisation). NB based on extensive global experience.**
- **Fermcap range compatible with cross flow filtration (ceramic membranes).**
- **Use the Kerry Bioscience ‘Fermcap- cost saving calculator’ to see the full benefits in process.**