

The Role of Temperature

- 1) What happens if malt germination occurs at a too-high temperature?
a) less enzyme formation in malt
b) more enzyme formation in malt
c) darker, higher SRM malt produced
d) protein content of malt is reduced
- 2) In which of the following steps is temperature least important?
a) malt germination
b) malt kilning
c) milling
d) boiling
- 3) Which of the below is true regarding higher mashing temperatures?
a) favors maltose production
b) favors dextrin production
c) both a) & b)
d) neither a) nor b)
- 4) Which of the below was used to control mash temperature in the past?
a) hand dunked in wort
b) observation of reflection on wort surface
c) decoction mashing
d) all of the above
- 5) Which of the below are reasons for boiling the wort?
a) Sterilizes the wort
b) Develops wort flavor via oxidation
c) Promote enzyme action
d) both a) & b)
- 6) What is the purpose of rapidly cooling the wort after the boil?
a) To precipitate cold-break and prepare wort for aeration
b) To increase oxygen content of the wort
c) To sterilize the wort
d) To dissolve fermentable sugars
- 7) Increased equilibrium oxygen solubility in wort is favored by....
a) warmer temperature
b) cooler temperature
c) not affected by temperature
d) both a) & c)
- 8) What is the optimal temperature range for fermentation of most Ales?
a) 39 - 54 °F
b) 45 - 60 °F
c) 59 - 68 °F
d) 68 - 78 °F
- 9) What is the optimal temperature range for fermentation of most Lagers?
a) 39 - 54 °F
b) 45 - 60 °F
c) 59 - 68 °F
d) 68 - 78 °F

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10) What is the typical temperature range for secondary fermentation (lagering) of lagers?

- a) 25 - 28 °F
- b) 30 - 33 °F
- c) 38 - 43 °F
- d) 45 - 55 °F

11) How does temperature affect equilibrium CO₂ solubility?

- a) increasing temperature decreases CO₂ solubility
- b) increasing temperature increases CO₂ solubility
- c) temperature does not affect equilibrium CO₂ solubility
- d) increasing temperature reduces water activity coefficient

12) Why is it bad to store beer at a too-warm temperature?

- a) increased oxidation and decreased shelf life
- b) decreased oxidation and increased shelf life
- c) increased oxidation and increased shelf life
- d) decreased oxidation and decreased shelf life

13) What is the best temperature range for serving of most ales?

- a) 31 - 33 °F
- b) 41 - 45 °F
- c) 75 - 85 °F
- d) 50 - 60 °F

14) In which of the below does temperature play a role?

- a) Rate of chemical reactions
- b) Solubility of compounds in beer
- c) Beer physical properties
- d) All of the above

15) How does temperature affect perception of beer flavor?

- a) Higher consumption temperature generally means more flavor & aroma
- b) Higher consumption temperature generally means less flavor & aroma
- c) Higher consumption temperature generally means slower rate of CO₂ release
- d) Temperature does not affect perception of beer flavor