Let's Eat: Exploring food science

Root Beer Lab

How does biology play a role in making root beer?

Do NOT taste unless aseptic techniques are used or food safety protocols are followed.

1. Define and explain how the terms below are related to making root beer.

	Fermentation	Carbonation	Yeast
Definition			
Effect on Root Beer			

Materials
2 Liter Pop Bottle
Funnel
Measuring Spoons
1 C Sugar
1 T Root Beer Extract
¼ t Baker's or Brewer's Yeast
about 2 L (low chlorine) Water

Procedure:

1. Add 1 cup of sugar to the 2L bottle through the funnel.
2. Add ¼ teaspoon of yeast and lightly shake to evenly distribute yeast and sugar.
3. Using the funnel again, add 1 tablespoon of root beer extract.
4. Fill the rest of the bottle with cool tap or bottled water.
5. Leave for 3-4 days at room temperature.
6. When bottle feels hard when squeezed, chill and serve!

Conclusion

1. Besides taste and flavor, why is sugar necessary in the recipe?

2. Water with a low amount of chlorine is preferred. What is your hypothesis as to why?

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3. What is the living organism that helped to make this beverage?

4. Why will the bottle be hard when finished?

5. What would happen if you used a different extract in the recipe?

6. Could an additive be used to act as a preservative so the liquid didn't continue to ferment? What might be a suggestion for one?

7. What would happen if different amounts of yeast and sugar are used? Propose an experiment to test your hypothesis.