

THE
GATEWAY
BREWING CŌ

HOME BREWING FOR THE ENTHUSIASTIC AMATEUR



WHY HOMEBREW?

- You can make any kind of beer: Ale, Lager etc.
- You can tweak the beer to suit your taste.
- Make any flavor you want: sweet, bitter, fruity, floral, dark, light etc.
- It's like cooking: you can add whatever you want: fruits, spices, chocolate, coffee etc.
- A great hobby that doesn't cost much
- Save money! Show off!! **Get Women!!!**





IS IT REALLY THAT EASY?

YES

- Basic steps to make decent beer are easy
- Requires an investment of only Rs.15,000 to start with. Out of this, Rs.7000 is for the fridge
- No sophisticated equipment required
- You can decide how deep you want to go

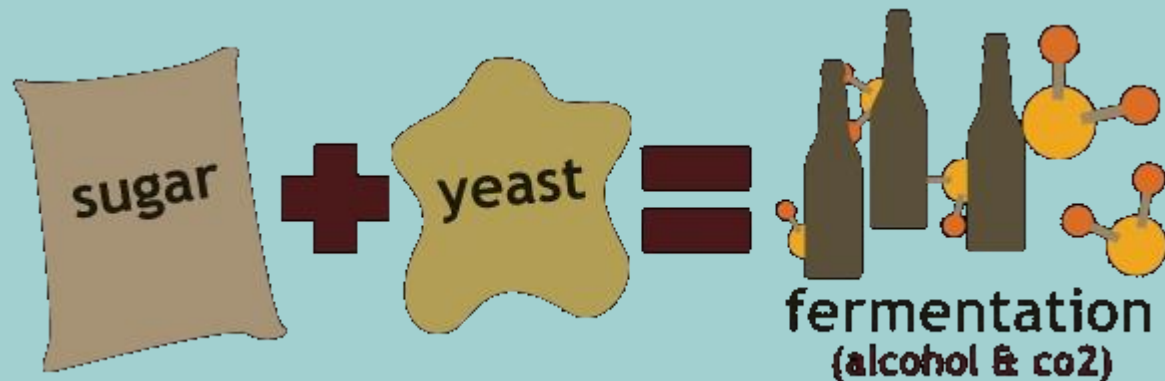
NO



- You must want to learn
- Control & patience is key to great beer
- Good quality ingredients are required
- You will need to source ingredients

WHAT IS BEER?

- Beer is an alcoholic beverage made from malted grains, hops, yeast, and water
- The grain is usually barley or wheat, but corn and rice are used as well
- Fruit, herbs, and spices may also be used for special styles.



TYPES OF BEER

ALES

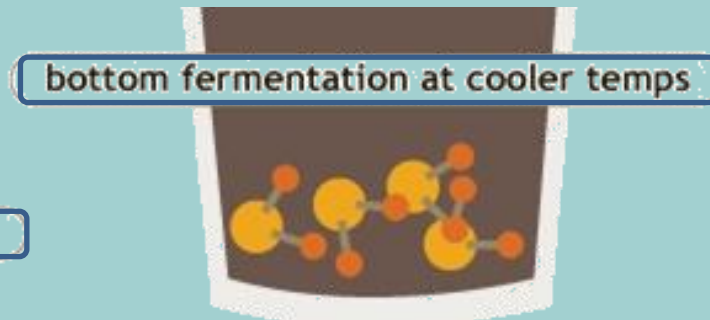
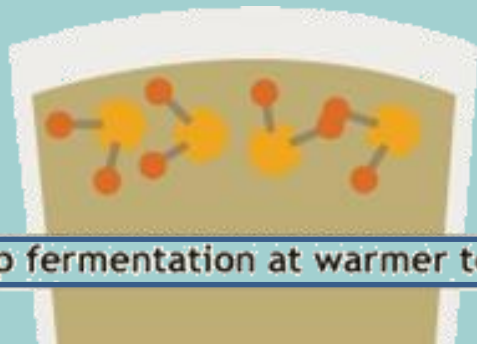
- Made with top fermenting yeast:
Saccharomyces cerevisiae
- Fermented at 18–24 C
- Fruity & aromatic

LAGERS

- Made with bottom fermenting yeast:
Saccharomyces pastorianus
- Fermented at 8–10 C
- Malt flavors

SPONTANEOUSLY FERMENTED

- Made with wild yeast
- Various flavors including sourness, tastes & aromas



WORLD BEER STYLES

UNITED KINGDOM

Bitters
Pale Ales
Mild Ales
Brown Ales (Porter &
Stout)
Barley wine
India Pale Ale

BELGIUM

Single
Double (Dubbel)
Triple (Trippel)
Special
Lambics (Spontaneously
fermented)

GERMANY / EASTERN EUROPE

Lagers
Vienna
Marzen
Oktoberfest
Alt
Hefeweizen
Dunkel
Wiess

USA

California
Common
Amber Ale
American Blonde
Ale
American Wheat
etc.



HOW'S IT MADE

INGREDIENTS

WATER



- Clean
- Odorless
- Chemical free

Minerals like calcium, magnesium etc., are essential for yeast

MALT



Barely is allowed to germinate to a certain extent and then dried. This activates enzymes required to convert starch into sugar.

HOPS



A climbing plant that can grow to a height of over 20 feet.

Hop cones contain a wealth of resins & essential oils, which give the beer its distinctive bitterness & hop flavor.

YEAST



A microscopic member of the fungus family. Yeast grows on sugar producing alcohol and carbon dioxide in a process called **fermentation**.

Yeast also produces a vast array of flavor compounds & much of the subtlety of beer flavor comes from the yeast strain and the fermentation conditions.



WHAT WOULD YOU LIKE TO MAKE ?

CHOOSE THE STYLE

- Pale Ale
- Brown Ale
- Stout / Porter
- Or, create your own



GRAINS

- Base Malt
- Crystal Malt
- Chocolate / Black Malt

HOPS

- Bitterness level
- Flavor & Aroma



YEAST

- Neutral
- Fruity
- Phenolic & Complex

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HOW'S IT MADE PROCESS

MILL

MASH

LAUTER

BOIL

COOL

FERMENT

- Weigh the malt as per the recipe
- Borrow your wife's blender (without telling her why)
- Crush should not be like flour—Just enough to crack open the grain
- Ready to dough in



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HOW'S IT MADE PROCESS

MILL

MASH

LAUTER

BOIL

COOL

FERMENT

- Measure the mash water in the ratio 2.5 litres per kilo of crushed malt.
- Heat up the water to about 80 C
- Dough in the grain with water.
- Mash strike temp between 65 C to 70 C. (temperature can vary to suit the beer style)
- Once temperature is achieved, rest it for an hour.



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HOW'S IT MADE PROCESS

MILL

MASH

LAUTER

BOIL

COOL

FERMENT

- Drain out the sweet liquid (wort) from the grain bed.
- Efficiency is achieved when maximum sugars have been rinsed out from the malt, and there are various ways to do this.
 - Batch sparge
 - Fly sparge
- Should be done slowly and patiently.
- Extraction is aided by the natural filter formed by the grains over the false bottom.
- Check the Brix.



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HOW'S IT MADE PROCESS

MILL

MASH

LAUTER

BOIL

COOL

FERMENT

- Boil the extracted wort for 60 to 90 mins.
- Once the boil is achieved, add the measured hops. This will depend on the style of beer your'e making.
- Boiling the wort does the following
 - Sterilizes
 - Coagulates the protein
 - Drives away undesirable compounds



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HOW'S IT MADE PROCESS

MILL

MASH

LAUTER

BOIL

COOL

FERMENT

- Once the boil is done place the vessel in an ice bath.
- The wort is rapidly cooled to the pitching temperature
 - 18-20 C for ales, and
 - 8-10 C for lagers.
- Rapid cooling:
 - Minimizes contamination
 - Minimizes Oxidation
 - Precipitates protein and cold trub



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HOW'S IT MADE PROCESS

MILL

MASH

LAUTER

BOIL

COOL

FERMENT

- The pitched wort is then placed in a temperature controlled environment for 7 to 10 days.
- During fermentation, the yeast multiply by feeding on sugar and oxygen present in the wort and produce CO₂ and alcohol as by products.
- Once the fermentation is done, you get green beer and its ready for bottling and conditioning.



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HOW'S IT MADE PROCESS

BOTTLING

- Measure the quantity of sugar required.
- Dissolve it in 2 times boiling water and set to cool
- Add this solution with the beer in a clean vessel without aerating too much.
- Siphon this solution into bottles and cap.

CARBONATION & CONDITIONING

- Once the bottles have been crowned. Store them in the cabinet for about 7–10 days.
- Yeast consumes this new sugar and produces CO₂, thus naturally carbonating the beer.
- Once the beer is carbonated, store the bottles in the regular home fridge. This will help clarify the beer and smoothen the taste. (15 – 30 days)



BREWING YOUR 1ST BATCH

INGREDIENTS

- Malted Barley
From Imperial Malts, Haryana
- Speciality grains, Hops & Yeast
from US, UK, Australia or Singapore
- Ice
- Mild Bleach & Detergent

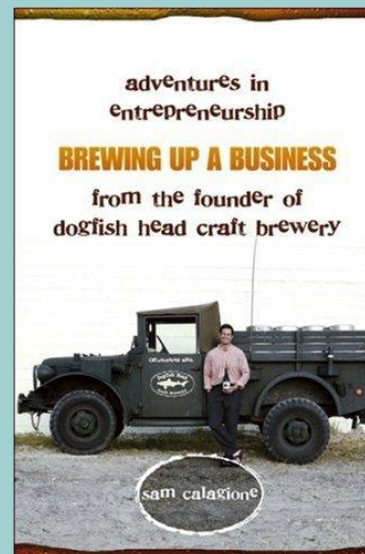
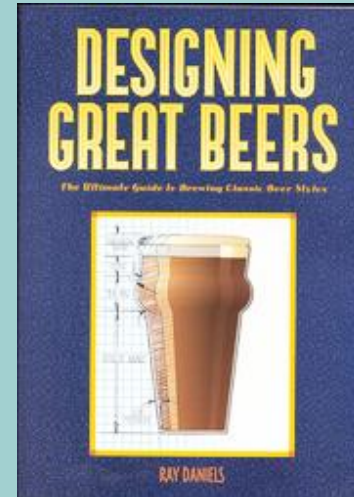
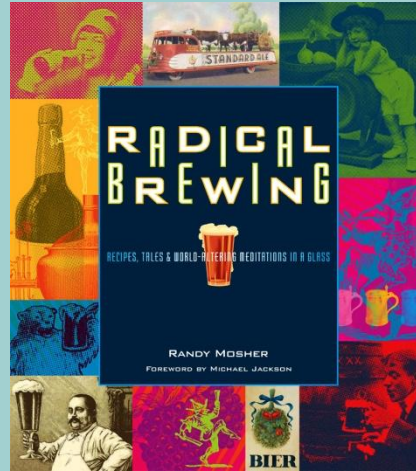
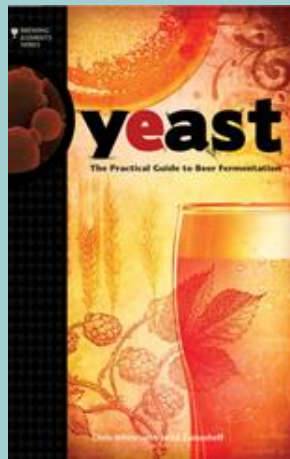
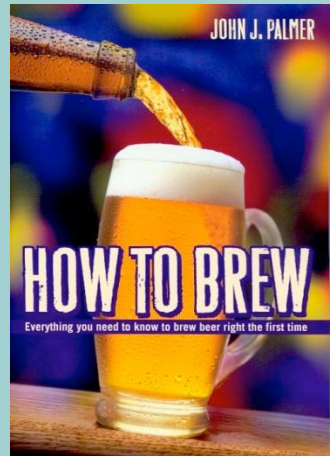
EQUIPMENT

- Refrigerator & temp. controller → • Rs. 7,000
- Accurate weighing scale (5kg) → • Rs. 1,500
- Cocaine weighing scale (100 gms) → • Rs. 1,500
- 3 Stainless steel 6 litre *topias* → • Rs. 1,000
 - 1 for mashing & lautering
 - 1 for boiling
 - 1 for fermenting
- 2 Five-litre graduated plastic mugs → • Rs. 500
- 2 Plastic beakers (500 ml) → • Rs. 300
- 1 Thermometer (0-100c) → • Rs. 150
- 1 Refractometer → • Rs. 1500
- 1 Siphon → • Rs. 100
- Bottles, crown caps & capper → • Rs. 1,500

Total: Rs. 15,000



RESOURCES



@indianbeergeek

@brewtonomy

www.gatewaybrewery.com