

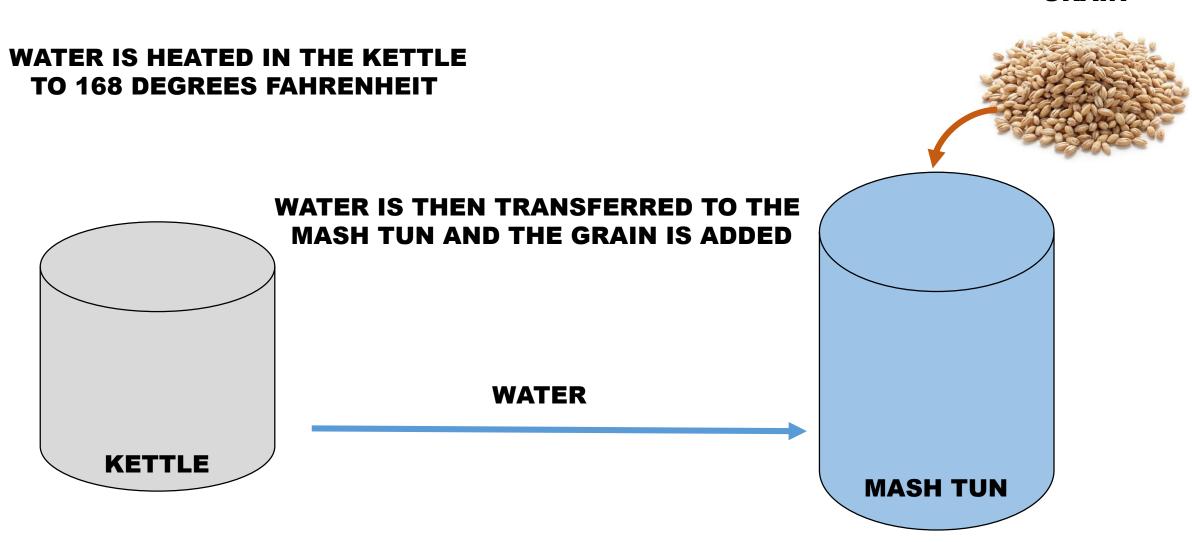
## WHAT IS BEER MADE OF?



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### THE MASH

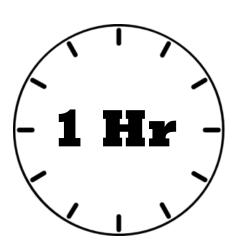
**GRAIN** 



## THE MASH

THE GRAIN IS SOAKED INSIDE OF THE MASHTUN AT 148°F - 158°F IN ORDER TO LEACH THE STARCHES (COMPLEX SUGARS) FROM THE GRAIN.



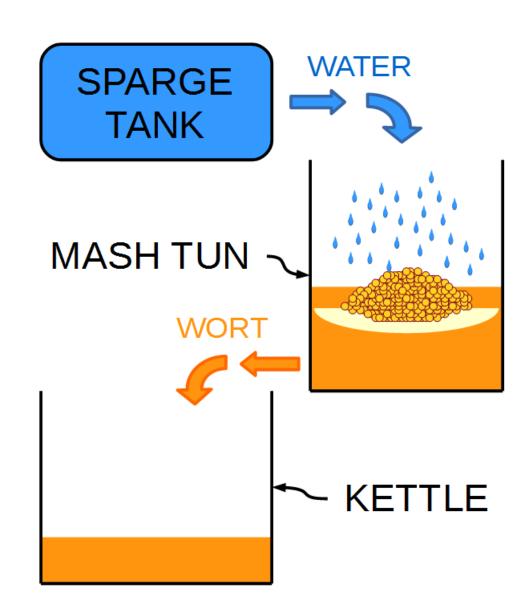


THE GRAIN SOAKS FOR ~1 HOUR

## THE SPARGE

DURING THIS STEP, THE STARCHY LIQUID (NOW CALLED WORT) BEGINS TO DRAIN INTO THE KETTLE LEAVING THE GRAIN BEHIND.

WHILE THIS HAPPENS, THE SPARGE TANK BEGINS TO EMPTY OVER THE TOP OF THE GRAINS IN ORDER TO WASH ALL OF THE RESIDUE STARCH OFF OF THE GRAIN AND INTO THE KETTLE.



# THE "BOIL"

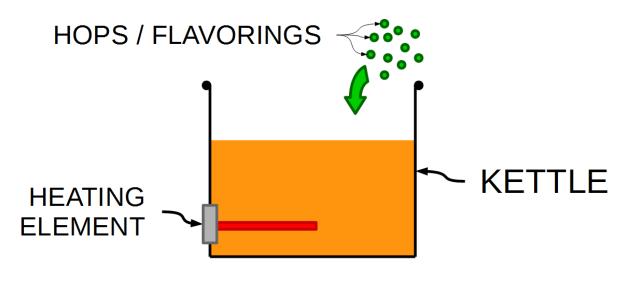
ONCE THE MAJORITY OF THE WORT HAS TRANSFERRED TO THE KETTLE, THE WORT IS HEATED TO 200°F - 212°F TO BREAK DOWN THE COMPLEX STARCHES.

DURING THE BOIL, HOPS AND OTHER FLAVORS ARE ADDED TO THE WORT. THE LENGTH OF TIME THESE ADDITIONS SPEND IN THE BOIL CAN AFFECT THE FINAL FLAVOR OF THE BEER, THEREFORE TIMING IS IMPORTANT.



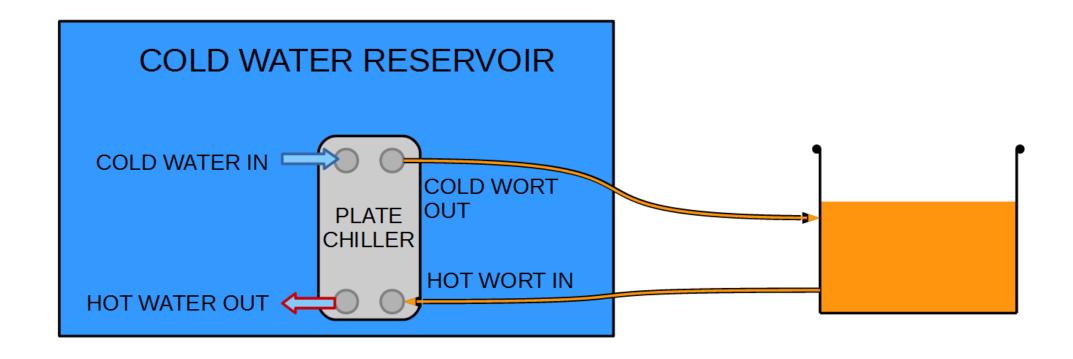
THE BOIL TYPICALLY LASTS
1-2 HOURS, BUT RECIPES VARY.





## COOLING

AFTER THE BOIL HAS COMLETED, THE WORT MUST BE COOLED TO A TEMPERATURE WHERE THE YEAST CAN THRIVE. DEPENDING ON THE STRAIN OF YEAST USED, THIS COULD BE FROM 60°F - 90°F.



## **FERMENTATION**

ONCE THE WORT IS COOLED, IT IS TRANSFERRED TO A FERMENTATION TANK OR CARBOY. THE YEAST IS THEN PITCHED IN THE WORT, STARTING THE FERMENTATION PROCESS.

#### THE RESULTANT LIQUID IS CALLED BEER.









FERMENTATION TIME VARIES BY RECIPE BUT TYPICALLY WILL TAKE BETWEEN 1-4 WEEKS.