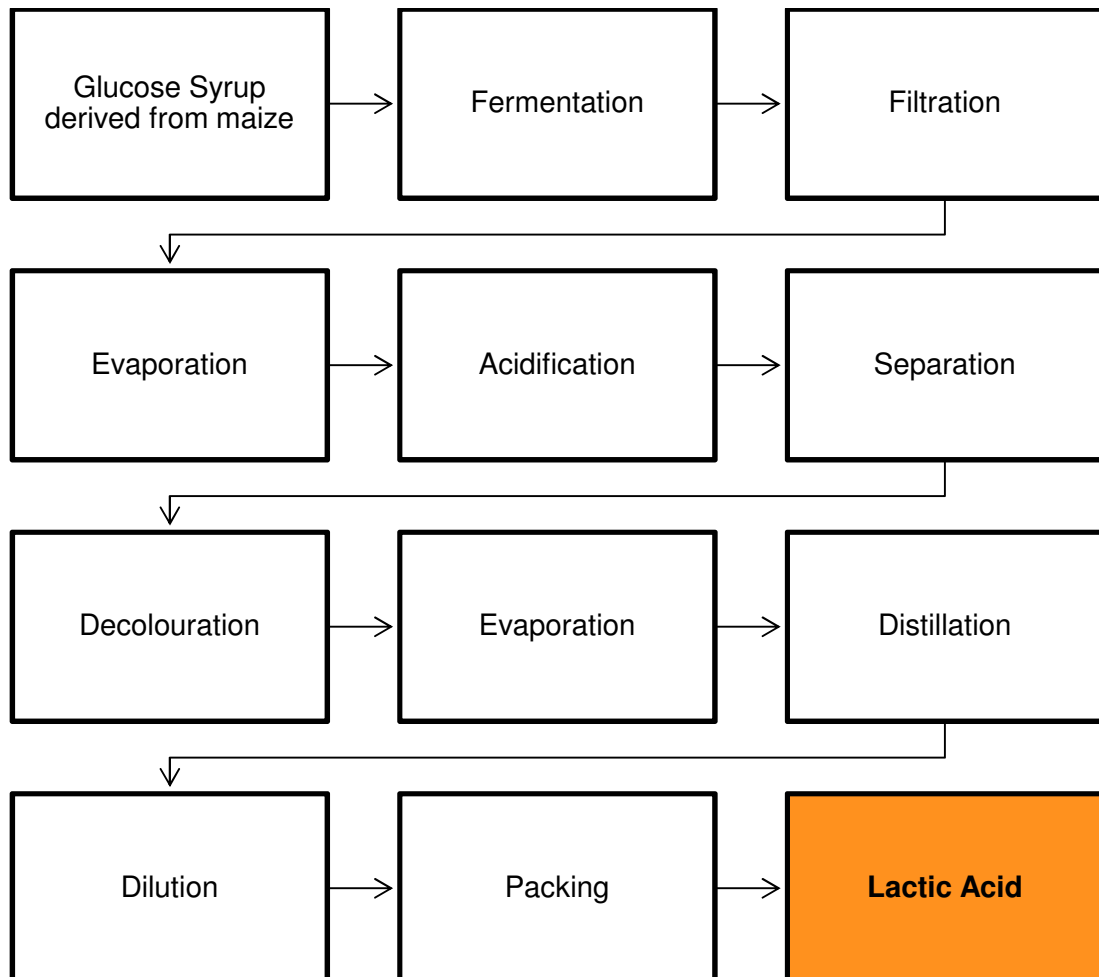


## Production Flow Chart Lactic Acid



### Fermentation Process

Lactic acid is produced by fermentation of glucose syrup out of maize by using a bacterial strain. A base is used during fermentation in order to maintain a neutral pH. No further solvents or catalysts are used during the complete process.

### Downstream Process

After the fermentation is complete, the broth is purified through filtration in order to remove the biomass. The filtrate is then concentrated through evaporation and acidified to gain pure lactic acid. Then the lactic acid is separated from the byproduct and decolourized with activated carbon. Thereafter the lactic acid concentration is increased again by evaporation. The final purification step is a distillation which leads to a high concentrated lactic acid. The last step before packing is the customisation where the acid is diluted into the final concentrations with demineralised water.