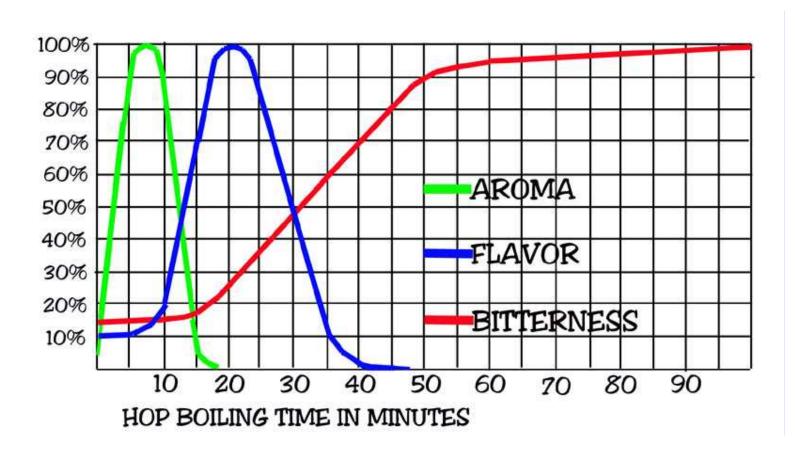
Hop Characteristics Derived from Boiling Times



As you can see, peak AROMA is about 7 minutes after the start of the boil. Peak FLAVOR is about 20 minutes into the boil and peak BITTERNESS is arrived at about 60 minutes.

Hops boiled for 20 minutes yield maximum flavour but all the aroma has dissipated. By 40 minutes, all the flavour has dissipated.