

MODERN ASPECTS OF BEER PRODUCTION

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For a long time beer is a valuable product, third most popular in the world (after water and tea), and the most popular among alcoholic beverages. Beer - low alcoholic drink obtained by an alcohol fermentation of the malt worth (usually based on barley) using brewer's yeast with the addition of hops. Beer is common in many countries of the world and is popular because of its taste and aroma. There are about a thousand species of beer. Taste characteristics of different types may be radically different.

One of the most important components of beer, which affects the formation of taste and odor, is hop. Brewery hops are produced from only unpollinated female inflorescences, which are soft lumps. It is in these cones substances needed to beer are concentrated in the largest number. Hops contain bitter resinous substance – lupulin which includes aromatic resins, essential oils, tannins, alkaloids, etc. Person consuming beer, to a significant extent replaces in his own body male hormone to female. The female body works more difficult and more elegant than male in it every month a hormonal background changing substantially, and invasion in the delicate mechanism of by introducing of phytoestrogens or other hormonal drugs would have serious consequences, including infertility. In connection with this, have a goal to explore the possibility of replacing it by a similar hop product properties in order to prevent pernicious influence on the body of hop. Therefore proposed to replace hops on needles. After studying the history of beer brewing, found out that the first recipe coniferous beer invented a few centuries ago, the people of Northern Europe. The fir essential oil has long been used as an expectorant for inhalation with the inflammation of the upper respiratory tract in medicine. So, modern Europeans have lost the tradition of cooking beer from the needles completely in vain. Conifer is a large, ancient group of gymnosperms. The cedar, cypress, fir, juniper, larch, spruce, pine, redwood, yew and cowries are belong to the coniferous trees. Two kinds of conifers are spruce and pine mentioned in the history of brewing. We consider them as a replacement hop. Comparing hops and pine needles on the main brewing components, we can conclude: 1) the tanning agents in the needles of 1.5% - 2% more than hops 2) bitter substances in hop more than in the needles in 4 times 3) contents of essential oil - approximately equal to (1.5%). Thus, based on literature data it can be concluded about the prospects of use for replacement of the needles in the production of beer hops.