

Medicinal Plants of Siberia as a Source of Natural Flavor Supplements

Natalia V. Fadeeva, Ludmila P. Rubchevskaya, Stepan M. Repyakh

Siberian State Technological University, 82, Mira street, Krasnoyarsk, 660049, Russia, fax:(3912)660390

Development of complex technology for processing plant resource to produce high quality natural biologically active supplements which can be used in various branches of domestic and foreign industry: medicine, cosmetics, home chemistry, food production, needs increase of resource base.

Not only fruit but vegetative part of *Padus avium Mill* is a promising medicinal source in production of biologically active substances. Development of new low-waste technologies makes possible to utilize this resource completely. There are several stages in the scheme of the investigation.

The first stage is extraction of lipid-soluble extractive substances with liquefied carbonic acid. Carbonic acid allows us to extract substances in their native state and produce natural edible aromatic substance. The carbon dioxide residual of *Padus avium Mill* is yellow-brown ointment with very peculiar strong scent. Physical and chemical parameters of the carbon dioxide residual and its group composition were studied. The optimum production conditions were determined.

The next stage is production of alcoholic extraction from the residual. Composition of alcoholic extraction gives grounds to recommend using it in production of alcoholic and soft drinks.

The last stage is utilization of the alcoholic residual. An edible species of mushrooms *Pleorotus ostreatus Fr. Kumm.* is grown on the residual.

The presented processing method allows complete utilization of *Padus avium Mill* and increase nutrition value of the produced substances. It is possible to use them as supplement to forage for animals to have additional source of proteins. The valuable food product, edible mushroom, is produced at the final cultivation stage.