SCIENTIFIC FOUNDATION OF PRODUCING TECHNOLOGY OF NON-ALCOHOLIC DRINKS

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Abstract: *This article describes the technology of production of soft drinks, fruit purees and fruit juices without synthetic, coloring elements and preservatives, based on the results of scientific research on the technology of production of soft drinks.*

Key words: *synthetic colorants, preservatives, Uzstandard Agency, soft drinks, fruit juices, fruit nectars, concentrated semi-finished products*

Introduction

Nowadays in Asia fruits, berries, field planting and vegetables are bringing up a lot. The meals and juices, which are prepared from these products, are very healthy. That's why to produce juices from natural fruits and vegetables in Uzbekistan are better and more useful than to produce non-alcoholic drinks which are prepared from synthetic and chemical elements.

For that reason due to results of research, working with Soreign specialists of open joint-stock "MARVEL JUICE Co" which produces non-alcoholic drinks without synthetic, coloring elements and coservants

f. ex: in 2006 we developed technic conditions to produce juice and half-prepared puree from natural fruits and berries. This half – prepared-puree products were confirmed by Uzbekistan DSEN department, "Uzstandart" agency and open joint-stock "MARVEL JUICE Co" and it was put on practice in Yangikorgan district, Namangan on November 2006.

This TSh 64-15737976-25:2006 technic conditions are includes apricot, quince, cherry, pear, red currant, black currant, raspberry, peach, apple, persimmon, sweet cherry purees to add for juices, canned food, jam, candied fruit jelly and ethers.

To prepare fruity half-prepared-puree products, fruits are heated on 95^0 C and hot fruits go to scamper. To modernize producing technology there were placed 50d equipment of 3 types (10,20,30) length and to produce puree from apples, and there were carried out 4 practices:

1. control variation. 20sm length part of 95^0 C temperature heater, without additions.
2. variation. To 20sm length part of 95^0 C temperature heater add 50d pipe of 10sm length.
3. variation. To 20sm length part of 95^0 C temperature heater add 50d pipe to 10sm length.
4. variation. To 20sm length part of 95^0 C temperature heater add 50d pipe of 30sm length.

The results are shown in 1 chart.

In "MARVEL JUICE Co" to produce by TSh 64-15737976-25:2006 technic conditions the heater equipment are heated to 95^0 C then it cold to 60^0 C and hot fruits drive to scamper. To use 20sm length part of 950 C temperature heater and to take more puree there were placed 3-condition variation.

12-15% of mass from taken products are dry elements. In this method the fruitfulness of products increased to 2-3% than active methods.

Also to simplify and expand producing non-alcoholic drinks from fruit-half finished products was studied new way of processing in laboratory conditions.

By used practice way passed fruit puree through 0,6mm grater machinery was put into collective container, and added for 1t puree 35 ml pectines and amiles ferments (pectines-decompose pectin, and amiles decompose starch ferments).

The fruit puree was kelp during 1,5 hour in 50-60 temperature in container. When by quality analysis definited that pectines and starch ferments in product contents had been broken up product was hold in ultra filter (UF) machinery on 6 bar pressure to limpid it. Then limpid product was got steam on 60 bar pressure and 85^0 C temperature thoroughly in evaporator and were got consentrated fruit juice contains 70% dry supplement. To produce non-alcoholic drinks (juice and nectars) in future this consentrated half-finished product was packed up in 205kg aseptic sacks.

Non passed through grater net 20-25% wasted were gathered into the container, on 1t waste 25 ml ekrims (pectines and amiles) and were kept in $50\text{-}60^0$ C temperature during 30m. Made salvage product was passed through the grater machinery again. In result were got 3% of extra product.

If match differences between this way of producing non-alcoholic drinks with that one which is used in practice, first, capacity is decreased, in aseptic way of packing up used 375 aseptic sacks for 75.000kg puree and packed up 12990kg consentrated juice in 52 aseptic sacks.

In other words 323 aseptic sacks economized. In saving this product it requires less space and in transportation also spends less expense. It is obvious that this way is better than other.

With producing products in huge volume consumers will be protected from poor quality non-alcoholic drinks will be provided with ecological pure natural product during the whole year.

With producing qualitative ecological pure non-alcoholic drinks from natural products, will be reached huge positive results in defending consumers' rights and healthy and it will be profitable from economic view.

Also discovering individual code numbers from chemical structure for exporting and importing products and through certificating it will be possible to defend country's economy basing on science. The determination of this problem was proposed at first in world wide by uzbek professors I.R.Asqarov and T.T.Risqiev in 1997 and was included in international science chemistry classifier 02.00.22- "Certificate and classifycate products on chemistry content", based on ways of this direction and discover individualized and perfected code numbers and certificating standards, and practice it will be important.

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