

Fruit wine – Specification

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TANZANIA BUREAU OF STANDARDS

0 Foreword

Wines are alcoholic beverages, traditionally known to be produced from grape fruits. However recently research and product development, wine can now be commercially produced from other fruits, like pawpaw, pineapples, bananas and citrus fruits. Wine production and consumption is increasing in Tanzania. In spite of the growing local market, potential for export does exist and thus could significantly contribute to the country's economy and people's income.

This Tanzania Standard was prepared in order to ensure that fruit wines manufactured locally or imported are safe and of good quality.

In the preparation of this Tanzania Standard considerable assistance was drawn from local manufacturers and KS 05-611: 1993, *Specification for fruit wines*, published by Kenya Bureau Standards.

In reporting the results of a test or analysis made in accordance with this Tanzania Standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2)

1 SCOPE

This Tanzania Standard specifies the requirements and methods of sampling and test for fruit wines for human consumption. This standard do not cover wine produced from grape fruits.

2 REFERENCES

The following referenced standards are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standard (including any amendments) applies

TZS 59, Water – Distilled quality – Specification

TZS 109, Code of hygiene for food processing units-General

TZS 115, Permissible food additives and levels of use – Schedule

TZS 470, Tables for alcoholometry

TZS 471 Methods of sampling and tests for alcoholic beverages

TZS 538, Packaging, and labelling of foods

TZS 4, Rounding off numerical values

3 TERMS AND DEFINITIONS

For the purpose of this Tanzania Standard, the following definitions shall apply:

3.1 fruit wines

beverages obtained by the alcoholic fermentation of fruits, (except grapes) or juice thereof with an alcohol content amounting to between 6.5 – 14% by volume. Fruit wines shall be prepared from an edible fruit such as pawpaw, banana, pineapple, citrus etc.

3.2 alcohol

means ethyl alcohol.

3.3 dry wines

fruit wines in which practically all the sugar has been converted by fermentation into alcohol to a maximum of residual reducing sugar content of 5.5 g/l.

3.4 sweet fruit wines

fruit wines which contain some unfermented sugar to a maximum level of 110 g/l as residual reducing sugar content.

3.5 red fruit wines

wines obtained by fermentation, during which the skins and or other tissues of the fruit are present during fermentation in order to impart a colouration arising from the pigments, of the fruits.

3.6 rose fruit wine

Fruit wines produced by normal alcoholic fermentation of the fruit juice, in which the skins and/or other tissues are removed before fermentation, yet retaining the typical colouration of the wine.

3.7 white fruit wine

Fruit wines produced by normal alcoholic fermentation of either red, white or other coloured fruit juices without pigment extraction; thus imparting to the wine a white or golden pale colouration.

4 TYPES

This Tanzania Standard covers the following types of fruit wines:

- a) dry white fruit wine;
- b) sweet white fruit wine;
- c) dry red fruit wine;
- d) sweet red fruit wine;
- e) dry rose fruit wine and
- f) sweet rose fruit wine.

5 REQUIREMENTS

5.1 General requirements

5.1.1 Description

Fruit wines shall be products of fermentation of hexose sugars of the expressed edible fruit juice by wine yeast cells to form ethyl alcohol and carbon dioxide. The fruits used in the alcoholic fermentation shall be ripe, fresh and shall possess the varietal characteristic.

5.1.2 Optional ingredients

Sugar (sucrose) shall be the only optional ingredient to be added in fruit wine.

5.1.3 Physical and organoleptic requirements

5.1.3.1 Fruit table wine shall possess the characteristics taste, colour and bouquet associated with the type of wine.

5.1.3.2 Fruit wines shall be free from foreign odour, taste, suspension, sediments and shall be clear

5.2 Specific requirements

When tested, fruit wine shall conform to the requirements given in Table 1.

Table 1 – Chemical requirements for fruit wine

S/No	Characteristic	Requirements		
		Dry fruit wines (white, red and rose)	Sweet fruit wines (white, red and rose)	Methods of test (see clause 2)
1	Alcohol, % by Volume.	6.5 – 14	6.5 – 14	TZS 471
2	Total acidity as citric acid, g/l, <i>max.</i>	4 – 8	4 – 8	
3	Volatile acidity as acetic acid, g/l.	1.3	1.3	
4	Methanol, %, <i>max.</i>	0.4	0.4	
5	Reducing residual sugar, g/l, <i>max.</i>	5.5	110	
6	Total sulphur dioxide, mg/l, <i>max.</i>	200	300	
7	Free sulphur dioxide, mg/l, <i>max.</i>	50	35	

5.3 Permitted food additives

Fruit wine may contain food additives which are prescribed in Codex Stan 192 (see clause 2). Fruit table wine shall also be free from any ingredients that can be injurious to health. No colour shall be added to give or amplify the colour of fruit wines.

6. CONTAMINANTS

Fruit wine when tested for contaminants shall not exceed the levels prescribed in Table 2

Table 2: Metal Contaminants Requirement

S/No	Characteristic	Requirements		
		Dry fruit wines (white, red and rose)	Sweet fruit wines (white, red and rose)	Methods of test (see clause 2)
1	Iron, mg/l, <i>max.</i>	8	8	TZS 471
2	Copper, mg/l, <i>max.</i>	2	2	
3	Lead, mg/l, <i>max.</i>	0.1	0.1	

7 HYGIENE

7.1 Fruit wines shall be manufactured in premises and maintained under hygienic conditions as prescribed in TZS 109 (see clause 2).

7.2 Fruit wines shall be free from spoilage microorganisms, coliform and or other pathogenic microorganisms.

8 SAMPLING AND TEST

The method of sampling and test shall be in accordance to TZS 471 (see clause 2)

9 PACKAGING, MARKING AND LABELLING

9.1 Packaging

Fruit wine shall be packed in a clean and sound food grade containers conforming to the requirements specified and use (see clause 2).

The containers shall be properly sealed to prevent any leakage of the content or contamination, adulteration and shall not affect the quality of the fruit wine.

9.1.2 Plastic sachets shall not be used in packing fruit wines

9.1.2 The net volume of the fruit wine content shall be the volume indicated on the container, subject to the tolerance of ± 1 percent on individual container, measured at room temperature.

7.2 Marking and labelling

7.2.1 Containers of fruit wine intended for sale or distribution for human consumption shall be legibly and indelibly marked with the following information:

- a) type of wine;
- b) the alcohol content, in percent by volume;
- c) the net content by volume in milliliters or litres;
- d) the name of the product and fruit used e.g. orange wine, pineapple wine, banana wine, pawpaw wine etc;
- e) name and address of the manufacturer;
- f) batch or code number;
- g) vintage;
- h) country of origin;
- i) list of ingredients and
- j) brand or trade name.

j) **9.2.2** The language on the label shall be "Kiswahili" or Kiswahili and English. A second language may be used depending on the designated market.

9.3 Containers may also be marked with the TBS Standards Mark of Quality

NOTE – The TBS Standard Mark of Quality may be used by manufacturers only under licence from TBS. Particulars of conditions under which the licences are granted may be obtained from TBS

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