



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
FAO/WHO COORDINATING COMMITTEE FOR AFRICA**

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**DISCUSSION PAPER ON THE DEVELOPMENT OF A REGIONAL CODEX STANDARD FOR
FERMENTED NON-ALCOHOLIC CEREAL BASED DRINK (MAGEU)**

(Submitted by Eswatini)

1. Introduction

1.1 *Mageu* is a traditional fermented and non-alcoholic drink made from mealie maize and sorghum. It is a popular sour maize/sorghum beverage in most Southern African countries like Botswana, Lesotho, Malawi, Mozambique, Eswatini, South Africa and Zimbabwe. The term *Mageu* is synonymous with *emahewu* (Siswati), *amahewu* (Zulu), *amaRhewu* (Xhosa), *mageu* (Shona, Setswana, and Sotho), *motogo* (Pedi). It can be used both as a drink (to quenches thirst) and as food.

1.2 Home production of *emahewu* is still practiced in the Southern African countries and it is also commercially brewed in food factories for sale in food retailers and wholesalers. The commercial and factory produced *emahewu* are available in 2 types; - plain and flavoured.

1.3 The most common flavours for *emahewu* are banana, strawberry, cream, pineapples etc. *Emahewu* are popular with workers in large plantations and mines because of its rare characteristics of providing energy and quenches thirst.

1.4 Its taste is derived mainly from the lactic acid that is produced during fermentation. Commercial *mageu* can be flavoured and sweetened in the same way like other products such as yogurt, carbonated/fizzy drinks etc.

1.5 *Mageu* is the commonly used word for this popular traditional brew in Southern Africa more particularly in the Southern African Development Community (SADC) region. Researchers of this product had used *mageu* in their studies and it is recommended that the name of the product should be maintained as *mageu* as it is a commonly used term in the Southern Africa Region. However, other parts of the CCAfrica region may have different local names and these would be taken into account.

2. General composition

2.1 General Composition (Ingredients) of *Mageu* and other similar products

The main ingredients of *emahewu* are follows:

- Mealie maize or sorghum
- Water
- Sugar
- Wheat flour

3. Production practices of *Mageu* and other similar products

3.1 *Mageu* is prepared by:

- First mixing cold water with mealie maize/maize flour or sorghum flour to make slurry which is then poured or added to boiling water;
- The mealie maize or sorghum slurry is then added to the boiling water is carefully stirred and brought to a boiling point without forming slumps;
- The slurry is further boiled (and/or cooked) and brought into a thin porridge, then cooled at room temperature and wheat flour is added, which serves as an inoculum of lactate-acid producing bacteria; and

- The mixture is left to ferment at room temperature and a final acidity of about 4-5% (lactic acid) develops within 1-2 days. The final product of traditionally brewed *emahewu* has a pH of about 3.5. Pasteurization is done in commercial operations to extend shelf-life.

4. Status of *Mageu* in the African Region

4.1 *Mageu* is largely consumed by people in the Southern African countries as a drink which provides energy and quenches thirst as an alternative to alcoholic drinks. *Mageu* can be used as a traditional weaning food for infants and for welcoming visitors as an alternative to tea or snacks.

4.2 The Governments in all countries are concerned about alcohol consumption, which results in difficult situations in the families and society at large. The WHO has also recommended policy measures for reducing consumption of alcohol. *Mageu* has the potential to be consumed in different African countries and this will help to reduce alcohol consumption in the African countries and support the society at large.

4.3 The Kingdom of Eswatini has set a national standard for *mageu* and other countries are also likely to develop national standards for this product. In case the standards differ, it may result into unnecessary trade restrictions. It is, therefore, appropriate that a regional Codex standard for *mageu* is developed so that its trade can be facilitated. This will fulfil the objectives of Codex, which aim at protecting consumers' health and ensuring fair practices in the food trade.

4.4 A proposal for new work in the prescribed format for development of a Regional Standard for *Mageu* is attached as Appendix I. The FAO/WHO Coordinating Committee for Africa (CCAFRICA) is requested to consider this proposal for setting the regional standard for *Mageu*.

PROJECT DOCUMENT

**PROPOSAL FOR NEW WORK FOR DEVELOPMENT OF A REGIONAL STANDARD FOR FERMENTED
NON-ALCOHOLIC CEREAL BASED DRINKS (MAGEU)**

1. The purposes and the scope of the standard

The purpose of this work is to develop a Regional Codex standard for fermented non-alcoholic cereal based drinks commonly known as Mageu. The standard will cover the essential quality safety characteristics of *mageu* that is packaged and sold mainly in carton packs of 250ml, 1000ml and 2000ml destined for the regional market.

2. Relevance and timeliness:

Trade in *mageu* is picking up in the region as more and more consumers are consuming the product because of its inherent quality of being used as an alternative to alcohol, carbonated drinks and snacks in between major meals. It is seen by Governments and consumers as a means to dissuade them consuming alcohol, carbonated drinks and unhealthy snacks. This proposal also contributes to the implementation of the WHO Global Strategy to reduce harmful use of alcohol, adopted at the 63rd World Health Assembly in 2010.

Mageu is predominantly consumed in several Southern African countries and has the potential to be consumed in other African countries. Different countries in the regional have different quality requirements. It is, therefore, time that a regional standard for *Mageu* is set so that its trade can be facilitated. This will fulfil the objectives of Codex, which aim at protecting consumers' health and ensuring fair practices in the food trade.

3. Main aspects to be covered:

The standard will cover the following main aspects;-

- a) Scope and Definitions
- b) Provisions for general quality requirements including raw materials; final products
- c) Provisions for the labeling and marking of the product in accordance with the General Standard for the labeling of Prepackaged Foods.
- d) Provisions for pesticides and contaminants with the reference to the General Standard for Contaminants and toxins in food
- e) Provisions for hygiene with the reference to the general principles of food hygiene and other relevant codes of hygiene practices.
- f) References to methods of analysis and sampling

4. Assessment against the Criteria for the establishment of work priorities:

- a) **Volume of production and consumption in individual countries: production data in tabular form for different countries and source of the data**

Months	Quantities
July 2018	396 235
August 2018	448 062
September 2018	514 464
October 2018	531 957
November 2018	570 602
December 2018	600 935
January 2019	609 448
February 2019	474 136
March 2019	676 292
April 2019	584 910
May 2019	463 636
June 2019	496 291
Total	6 366 968

(Source of data: Mandla Mahewu, Matsapha, Eswatini)

b) **Volume and pattern of trade between countries:**

Volume of *mageu* exported to *different countries* Republic of South Africa

Months	Quantities (Litres)
July 2018	178 201
August 2018	201 627
September 2018	231 508
October 2018	239 380
November 2018	256 770
December 2018	270 420
January 2019	274 251
February 2019	213 361
March 2019	304 331
April 2019	263 209
May 2019	208 636
June 2019	223 330
Total	2 865 024

(Source of data: Mandla Mahewu, Matsapha, Eswatini)

Botswana Malawi, Mozambique

Months	Quantities (Litres)
July 2018	39 623
August 2018	44 806
September 2018	51 446
October 2018	53 195
November 2018	57 060
December 2018	60 093
January 2019	60 944
February 2019	47 413
March 2019	67 629
April 2019	58 491
May 2019	46 363
June 2019	49 629
Total	636 692

- c) Diversification of national legislations and apparent resultant or potential impediments to international trade: Eswatini has set a national standard for *mageu* and other countries are also expected to consider setting national standards for this product. Once that happens, and if the standards differ, it may result into unnecessary impediments to trade. It is, therefore, appropriate that a regional Codex standard for *mageu* is developed. Similar standards for the fermented non-alcoholic cereal based drink (*Mageu*) were developed in the following countries;-
- i. Eswatini: SZNS SANS 1199: 2007, The production of *mageu*
 - ii. Malawi: MS 623 – Mahewu Specification
 - iii. South Africa: SANS 1199: 2011 Edition 2.3, The production of *mageu*
 - iv. Uganda: US 872: 2011, Fermented (non-alcoholic) cereal beverages – Specification (Draft)
- d) International or regional market potential: As can be observed from the production and trade data presented in (a) and (b) above, there is a good potential for expansion of trade in this product.
- e) Amenability of the commodity to standardisation: The general quality characteristics of fermented non-alcoholic cereal based drink including raw materials, finished products, hygiene, labelling, methods of analysis all lead to adequate parameters to standardisation of the product. There are quite similar products produced and traded in Africa, it is amenable to standardization.
- f) Coverage of the main consumer protection and trade issues by existing or proposed general standards:

- (i) *Consumer Protection issues*—By standardization of *Mageu*, it is proposed to standardize the quality and quantity of ingredients and additives as well as the limits of alcohol in the product across the African region.
- (ii) *Trade issues*—Currently, there are no major issues connected to trade in *Mageu*. However, these issues are likely to come up in the region as the volume of production and trade increases and more countries start setting national standards for this product that are different from each other.
- g) Number of commodities which would need separate standards indicating whether raw, semi-processed or processed: One standard for *Mageu* will be sufficient and there is no need for developing separate standards for raw, semi-processed or processed *Mageu*.
- h) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies): No work has been undertaken by any other international organization.

5. Relevance to the Codex strategic objectives:

The proposal fulfils the following Codex Strategic objectives of the Codex Strategic Plan 2014-19 –

- (i) Strategic Objective 1.1.1 – Consistently apply decision making and priority setting criteria across committees to ensure that the standards and work areas of highest priority are progressed in a timely manner;
- (ii) Strategic Objective 1.2.2 – Develop and revise international and regional standards as needed, in response to needs identified by members and in response to factors that affect food safety, nutrition and fair practices in the food trade;
- (iii) Strategic Objective 3.1.1 – Encourage members to develop sustainable national institutional arrangements to promote effective contribution to the Codex standard setting process;
- (iv) Strategic Objective 4.2.1 – Improve the understanding of Codex members and delegates of the importance of and approach to consensus building of Codex work.

6. Information on the relation between the proposal and other existing Codex documents

Currently, there are no other existing Codex documents that have a relation with this proposal for a regional standard for *Mageu*. However this standard will make reference to relevant standards and related texts developed by General Subject Committees as follows:

- Principles and Guidelines for the Establishment and Application of Microbiological Criteria for Foods (CXG 21-1997)
- General Principles of Food Hygiene (CXG 1-1969)
- General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995)
- General standard for the labelling of Prepackaged Foods (CXS 1-1985)

7. Identification of any requirement for and availability of expert scientific advice

None anticipated at this stage.

8. Identification of any need for technical input to the standard from external bodies

None anticipated.

9. Proposed time-line for completion of the new work:

The development of the regional standard is expected to be completed in two to three sessions of CCAFRICA depending on the agreement reached by the Committee four years as per the following timelines -

No.	Steps Proposed to be Covered	Proposed Timelines
2.	Approval of the new work	CAC43
3.	Consideration of proposed draft standard at Step 3	CCAFRICA24
4.	Adoption of the draft standard at Step 5	CAC45
5.	Consideration of proposed draft standard at Step 7	CCAFRICA25
6.	Adoption of draft standard by Commission AT Step 8	CAC47