



DRAFT TANZANIA STANDARD

Fresh dandelion greens — Specification

DRAFT FOR PUBLIC COMMENTS ONLY

TANZANIA BUREAU OF STANDARD

0. Foreword

Dandelion greens are leafy vegetables that grow from the hollow stemmed dandelion plant. They have a slightly to strong bitter taste depending on the variety and growth stage. They are versatile vegetables that can be used in a variety of ways as raw or cooked, preferably blanched. Dandelions are nutritious and high in vitamins (A, C and K) and minerals.

This Tanzania Standard was prepared in order to provide guidance to producers and traders of fresh dandelion greens as well as regulators and to act as a means for ensuring the safety and quality of the produces.

In the preparation of this Tanzania Standard considerable assistance was derived from:

United States Standards for Grades of Dandelion Greens, Effective February 4, 1955 (*Reprinted - January 1997*).

In reporting the results of a test or analysis made in accordance with this 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 standard specifies the requirements, methods of sampling and test of dandelion greens consisting of either plants or cut leaves of varieties (cultivars) grown from *Taraxacum officinale* F.H. Wigg. to be supplied fresh to the consumer; dandelion greens for industrial processing being excluded.

2. Normative 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 standards (including any amendments) applies.

- a) TZS 4 *Rounding off numerical values*
- b) TZS 109 *General principles of food hygiene - Code of practice*
- c) TZS 122 *Foodstuffs - Microbial examination for Salmonella spp*
- d) TZS 538 *Pre - packaged food labeling - general requirements*
- e) TZS 552 *Code of Hygienic Practices for Fresh Leafy Vegetables*

- f) TZS 729 *Microbiology of food and animal feeding stuffs -Horizontal method for the enumeration of coliforms - Colony count technique*
- g) TZS 730-2 *Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of b-glucuronidase-positive Escheria coli - Part 2 - Colony-count technique at 44 °C using 5-bromo-4-chloro-3-indolyl-b-D-glucuronide*
- h) TZS 852-1 *Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of Listeria monocytogenes - Part 1 - Detection method*
- i) TZS 1002 *Fresh fruits and vegetables - Sampling.*
- j) TZS 1003 *Guide to the prepacking of fruits and vegetables*
- k) *Codex stan 193 General Standard for Contaminants and Toxins in Food and Feed*
- l) *Codex pesticide residues in food online data base*

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply;

3.1 similar varietal characteristics

same general colour and character of growth

3.2 fresh

greens are not more than slightly wilted

3.3 fairly tender

greens are not old, tough, or excessively fibrous

3.4 clean

the appearance of the greens is not materially affected by the presence of mud, dirt, or other foreign material

3.5 well-trimmed

cut at the crown of the root or cut so that the roots do not extend more than approximately one and one-half inches below the crown

3.6 damage

any defect which materially affects the appearance, or the edible or shipping quality of the individual unit, or the lot as a whole.

3.7 seedstem

stem not more than one –fourth the length of the longest leaf

3.8 intact

no part(s) removed and have not suffered any damage

3.9 sound

not affected by rotting or deterioration such as to make it unfit for consumption

3.10 turgescence

crisp and not wilted

4 Requirements

4.1 General requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the dandelion greens shall be:

- a) Intact;
- b) Sound;
- c) clean and trimmed;
- d) fresh in appearance;
- e) practically free from pests and damage caused by them;
- f) turgescence;
- g) not running to seed;
- h) free of abnormal external moisture and
- i) free of any foreign smell and/or taste.

4.1.2 The produce shall be of normal development. The development and condition of the produce shall be such as to enable it:

- a) withstand transportation and handling; and
- b) arrive in a satisfactory condition at the place of destination

4.2 Specific requirements

4.2.1 Classification

The produce is classified as defined below:

4.2.1.1 Class I

Class I consists of dandelion greens of similar varietal characteristics which are fresh, fairly tender, clean, well-trimmed, and which are free from decay and free from damage caused by seedstems, discoloration, freezing, foreign material, disease, insects, mechanical or other means.

4.2.1.2 Unclassified

Unclassified consists of dandelion greens which have not been classified in accordance with the foregoing grade. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

4.2.2 Size requirements

Sizing is not used in this produce.

5 Tolerances

Tolerances in respect of quality and size shall be allowed in each package or each unpackaged bundle for produce not satisfying the requirements of the class indicated.

5.1 Quality tolerances

5.1.1 Tolerance for defects

In order to allow variations incident to proper grading and handling other than for mixtures of plants and cut leaves, not more than a total of 10 percent by weight of the units in any lot may fail to meet the requirements of the grade provided that not more than one-half of this amount, or 5 percent, shall be allowed for serious damage by any cause, and including therein not more than 2 percent for decay.

5.1.2 Tolerances for mixtures of plants and leaves

Not more than 5 percent, by weight, of the dandelion greens packed as plants, in any lot, may consist of cut leaves or when packed as cut leaves may consist of plants.

6 Presentation

6.1 The contents of each package shall be uniform and contain only dandelion greens of the same origin, quality, colour and size.

The visible part of the contents of the package shall be representative of the entire contents.

7 Contaminants

7.1 Heavy metal contaminants

Fresh dandelion greens shall comply with those maximum metal contaminants established by the Codex Stan 193.

7.2 Pesticide residues

Fresh dandelion greens shall comply with those maximum residue limits established in the Codex pesticide residues in food online data base.

8 Hygiene

8.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with TZS 109 and TZS 552 (see clause 2).

8.2 Fresh dandelion greens shall be free from worms or their eggs

8.3 Fresh dandelion greens shall also comply with the microbial requirements prescribed in Table 1.

Table 1. Microbiological requirements for fresh dandelion greens

Characteristic	Requirement	Test method
Coliforms, cfu/g	10 ²	TZS 729
<i>Escherichia coli</i> , cfu/g	Absent	TZS 730-2
<i>Salmonella</i> spp, /25 g	Absent	TZS 122
<i>Listeria monocytogenes</i> , /25g	Absent	TZS 852-1

9. Sampling and Tests

9.1 Sampling

Representative samples of the fresh dandelion greens shall be drawn as prescribed in TZS 1002 (see clause 2).

9.2 Tests

Tests shall be done in accordance with the methods prescribed in this standard.

10 Packaging, marking and labelling

10.1 Packaging

10.1.1. Dandelion greens shall be packed in such a way as to protect the produce properly. The materials used inside the package shall be new, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

10.1.2 The bulk/shipping containers shall meet the quality, hygiene, ventilation and resistance characteristics that shall ensure suitable handling, shipping and

preserving fresh dandelion greens. Packages shall be free of foreign matter and objectionable smell.

10.1.3 The use of any substance tending to modify the natural characteristics of the produce, especially form, texture and taste shall be prohibited.

10.1.4 In addition to the provisions covered by this standard, fresh dandelion greens shall also be packed in accordance with TZS 538 and TZS 1003 (See clause 2).

10.2 Marking and labelling

10.2.1 Each package shall legibly and indelibly bear the following information:

- a) Name of the produce " Dandelion greens";
- b) Name, physical and postal address of the packer and/ or dispatcher;
- c) Country of origin;
- d) Net weight;
- e) Commercial specifications;
 - class
 - nature expressed by "bunched dandelion greens"
 - number of bunches
- f) Brand or trade mark, if any;
- g) Storage condition;
- h) Pack date;

10.2.2 Certification mark – Each container may also be marked with TBS certification mark.

NOTE: The use of TBS certification mark is governed by provisions of the Standards Act, 2009. Details of the conditions under which a license for the use of TBS certification mark may be granted to manufacturers or producers, may be obtained from TBS.