

FICHE NUTRITIONNELLE

DANDELION



Apport calorique

48,70 kcal pour 100 g

85,30 g Eau

2,70 g Fibres

6,10 g Glucides

37,50 mg Vitamine C

778 µg Vitamine K1

Raw product



DESCRIPTION

- Dandelion (*Taraxacum officinale*) belongs to the **Asteraceae** family.
- It is a native European plant, widely distributed in the warm temperate zones of the northern hemisphere ([Gonzales-Castejon, 2012](#)).

PHYSICAL AND ORGANOLEPTIC CHARACTERISTICS

- Dandelion is a plant that can grow up to 0.6 m high. The toothed leaves, which vary in shape by the depth of the teeth, are arranged in a rosette at the base of the aerial part. All parts are **edible**: roots, leaves and flowers ([Abbara, 2016](#); [Grauso, 2019](#)).
- The **flower**, as it is called, is actually a set of **ligulate florets** that make up a bright yellow flower head ([Abbara, 2016](#)).
- The petiole of the « Garnet Stem » variety is red, due to the presence of **anthocyanins** (polyphenols of the flavonoid family): Cyanidin-3-glucoside, Cyanidin-3-(« -malonyl)-glucoside (I-1) and (I-2) and Peonidin-3-(6 «-malonyl)-glucoside ([Gomez, 2018](#)).
- The leaves contain a **high content of chlorophyll a and b**, giving them their green colour ([Gomez, 2018](#)).

COMPOSITION CHARACTERISTICS (EXCLUDING MACRONUTRIENTS, VITAMINS AND MINERALS)

- One study found several **polyphenols** in dandelion flowers, including gallic acid (44.14 µg/g dry matter), rutin (18.66 µg/g dry matter), resveratrol (274.92 µg/g dry matter), vanillic acid (82.88 µg/g dry matter) and sinapic acid (593.04 µg/g dry matter) ([Lopez-Garcia, 2013](#)). **Flavones** are also found: luteolin and chrysoeriol ([Milek, 2019](#)).
- Taraxasterol (triterpene) has also been isolated from dandelion ([Liu, 2013](#)). This is reported to have **anti-inflammatory** and **antioxidant** effects, which may notably allow it to be beneficial in certain conditions such as alcohol-damaged liver, high-fat diet ([Xu, 2018](#); [Li, 2020](#)), **stomach cancer** ([Chen, 2020](#)) and **colon inflammation** ([Che, 2019](#); [Chen, 2019](#)).
- Dandelion leaves contain **organic acids** including, from most to least abundant: malic acid, malonic acid, tartaric acid, citric acid, quinic acid, succinic acid, acetic acid and formic acid ([Grauso, 2019](#)).
- Like the flowers, the leaves also contain **polyphenols** such as flavonoids (luteolin and derivatives, quercetin derivatives) and phenolic acids (caffeic acid and caffeoyl derivatives, chicoric acid) ([Flores-Oceloti, 2018](#); [Grauso, 2019](#); [Milek, 2019](#)).
- The leaves also contain **carotenoids**, such as β -carotene, lutein and violaxanthin. On the other hand, the chlorophyll and carotenoid content depends on the variety and location of the crop ([Gomez, 2018](#)).
- The presence of polyphenols and carotenoids gives dandelion **antioxidant activity** ([Gomez, 2018](#); [Aremu, 2019](#)), which is greater in leaves than in flowers ([Milek, 2019](#)).
- Luteolin and derivatives of caffeic and caffeoylquinic acid have shown an **antiviral effect** ([Flores-Oceloti, 2018](#)).
- Luteolin is also thought to be an **anti-diabetic** by inhibiting α -glucosidase, which prevents the digestion of carbohydrates ([Choi, 2018](#)).
- In addition, chicoric acid, taxasterol, chlorogenic acid, and lactone sesquiterpenes contained in dandelion also help **fight type 2 diabetes**. Lactone sesquiterpenes are usually extracted from the roots, but are also contained in the leaves of dandelion, such as taraxinic acid and β -D glucopyranoside ([Wirngo, 2016](#)).
- The main components identified in a hexane extract of dandelion leaves are phytol, lupeol, taraxasteryl acetate, β -sitosterol, α -amyrin, β -amyrin and cycloartenol acetate ([Ivanov, 2018](#)). This fraction also exhibits **antioxidant and antimicrobial activity** ([Ivanov, 2018](#)).

COMPOSITION ET ANALYSE NUTRITIONNELLE

RAW

The following values are approximate and depend on variety, season, ripeness, cultivation conditions, etc.
Dandelion provides an average of **48.70 calories (kcal)** per 100 g, i.e. **204 kJ**.

COMPOSITION TABLES

For each nutrient, the tables provide information on the content, the minimum and maximum values, as well as the percentage of the Dietary Reference Values (DRVs) for 100 g net of raw dandelions.

MACRONUTRIMENTS

Valeurs

Constituant (g)	Teneur moyenne	Min-Max pour 100 g	% VNR
Eau	85,30	85 - 85,60	-
Fibres	2,70	1,20 - 3,50	-
Glucides	6,10	-	2,35
<i>dont Sucres</i>	0,71	-	0,79
Lipides	0,85	0,70 - 1	1,21
<i>dont Acides Gras Saturés</i>	0,17	-	0,85
Protéines	2,91	2,70 - 3,13	5,82

Sources

Constituant (g)	Quantité	Min-Max	% VNR
Eau	Ciquel 2020	-	-
Fibres	Ciquel 2020	-	-
Glucides	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
<i>dont Sucres</i>	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Lipides	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011

Constituant (g)	Quantité	Min-Max	% VNR
dont Acides Gras Saturés	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Protéines	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011

Zoom on carbohydrates

- Dandelion contains a quantity of carbohydrates (6.10 g per 100 g), higher than the average quantity present in raw vegetables (4.45 g per 100 g).
- Dandelion is **low in sugar*** (0.71 g per 100 g) as it contains no more than 5 g per 100 g.

Zoom on fibres

- Dandelion provides a significant amount of fibre: 2.70 g per 100 g.
- This amount is higher than the average quantity of fibre found in raw vegetables (2.43 g per 100 g).

Zoom on proteins

- The protein content (2.91 g per 100 g) is higher than the average amount found in raw vegetables (1.87 g per 100 g).

Zoom on lipids

- The fat content of dandelion (0.85 g per 100 g) is higher than the average amount of this macronutrient found in raw vegetables (0.56 g per 100 g).
- Dandelion **is low in fat*** as it contains no more than 3 g per 100 g.

*Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods.

MINÉRAUX ET OLIGO-ÉLÉMENTS

Valeurs

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Calcium (mg)	62,30	19,50 - 187	7,79
Chlorure (mg)	-	-	-
Cuivre (mg)	0,067	0,055 - 0,17	6,70
Fer (mg)	3,10	-	22,14
Iode (µg)	0,40	-	0,27

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Magnésium (mg)	13,20	9,50 - 36	3,52
Manganèse (mg)	0,16	0,091 - 0,34	8
Phosphore (mg)	66	-	9,43
Potassium (mg)	397	-	19,85
Sélénium (µg)	< 2,20	-	-
Sodium (mg)	87,80	76 - NC	-
Zinc (mg)	0,21	NC - 0,41	2,10

Sources

Constituant	Quantité	Min-Max	% VNR
Calcium (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Chlorure (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Cuivre (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Fer (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Iode (µg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Magnésium (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Manganèse (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011

Constituant	Quantité	Min-Max	% VNR
Phosphore (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Potassium (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Sélénium (µg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Sodium (mg)	Ciqua 2020	-	-
Zinc (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011

Zoom on minerals and trace elements

- Dandelion is a **source of**:
 - **iron** as it provides the equivalent of 22.14% of DRVs, i.e. 3.10 mg per 100 g;
 - **potassium** as it provides the equivalent of 19.85% of DRVs, i.e. 397 mg per 100 g.
- It also provides the equivalent of:
 - 9.43% of DRVs for phosphorus, i.e. 66 mg per 100 g;
 - 8% of DRVs for manganese, i.e. 0.16 mg per 100 g;
 - 7.79% of DRVs for calcium, i.e. 62.30 mg per 100 g;
 - 6.70% of DRVs for copper, i.e. 0.067 mg per 100 g.
- The other minerals and trace elements represent less than 4% of DRVs.

VITAMINES

Valeurs

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Provitamine A Béta-carotène (µg)	5 850	-	-
Équivalent Vitamine A (µg)	975	-	121,88
Vitamine B1 (mg)	0,19	-	17,27
Vitamine B2 (mg)	0,20	0,14 - 0,26	14,29

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Vitamine B3 (mg)	0,80	NC - 0,81	5
Vitamine B5 (mg)	0,084	-	1,40
Vitamine B6 (mg)	0,25	-	17,86
Vitamine B9 (µg)	27	-	13,50
Vitamine C (mg)	37,50	35 - 40	46,88
Vitamine E (mg)	3,44	-	28,67
Vitamine K1 (µg)	778	-	1 037,33

Sources

Constituant	Quantité	Min-Max	% VNR
Provitamine A Béta-carotène (µg)	Ciquel 2020	-	-
Équivalent Vitamine A (µg)	Calcul à partir de la valeur Provitamine A Béta-carotène*	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine B1 (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine B2 (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine B3 (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine B5 (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine B6 (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011

Constituant	Quantité	Min-Max	% VNR
Vitamine B9 (µg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine C (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine E (mg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011
Vitamine K1 (µg)	Ciquel 2020	-	Règlement (UE) N°1169/2011 du parlement Européen, et du conseil du 25 octobre 2011

Zoom on vitamins

- Dandelion is **high in**:
 - **vitamin K1** as it provides the equivalent of 1037.33% of DRVs, i.e. 778 µg per 100 g;
 - **vitamin A** as it provides the equivalent of 121.88% of DRVs, i.e. 975 µg per 100 g;
 - **vitamin C** as it provides the equivalent of 46.88% of DRVs, i.e. 37.50 mg per 100 g. According to the Ciquel 2020 table, dandelion is, after cooked kale, the vegetable that contains the most vitamin K1.
- It is also a **source of**:
 - **vitamin E** as it provides the equivalent of 28.67% of DRVs, i.e. 3.44 mg per 100 g;
 - **vitamin B6** as it provides the equivalent of 17.86% of DRVs, i.e. 0.25 mg per 100 g;
 - **vitamin B1** as it provides the equivalent of 17.27% of DRVs, i.e. 0.19 mg per 100 g.
- In addition, dandelion contains significant amounts of **vitamin B2** and **vitamin B9**. It provides the equivalent of:
 - 14.29% of DRVs for vitamin B2, i.e. 0.20 mg per 100 g;
 - 13.50% of DRVs for vitamin B9, i.e. 27 µg per 100 g.

■ The other vitamins are present in smaller quantities, since they cover less than 6% of DRVs.

*Calculation made: Beta Carotene / 6 + retinol

POLYPHÉNOLS

Valeurs

Constituant (g)	Teneur moyenne	Min-Max pour 100 g
Polyphénols totaux	385,55	26 - 745,10

Sources

Constituant (g)	Quantité	Min-Max
Polyphénols totaux	Phénol-Explorer version 3.6 Méthode utilisée : Dosage du folin	-

Zoom on polyphenols

- Polyphenols are substances with an antioxidant effect.
- According to the folin dosage method, dandelion contains a significant amount of polyphenols, i.e. 385.55 mg per 100 g.

ALLÉGATIONS NUTRITIONNELLES ET DE SANTÉ

ALLÉGATIONS NUTRITIONNELLES ET DE SANTÉ RAW

According to the definitions of nutrition claims as set out in Regulation (EC) No 1924/2006 on nutrition and health claims, and in view of the composition of dandelion, the following claims may be used:

NUTRITION CLAIMS OF DANDELION

- **Low in fat** (100 g of dandelion contain less than 3 g of fat)
- **Low in sugar** (100 g of dandelion contain no more than 5 g of sugar)
- **Rich in vitamin K1** (100 g of dandelion provide more than 30% of DRVs)
- **Rich in vitamin A** (100 g of dandelion provide more than 30% of DRVs)
- **Rich in vitamin C** (100 g of dandelion provide more than 30% of DRVs)
- **Source of vitamin E** (100 g of dandelion provide more than 15% of DRVs)
- **Source of iron** (100 g of dandelion provide more than 15% of DRVs)
- **Source of potassium** (100 g of dandelion provide more than 15% of DRVs)
- **Source of vitamin B6** (100 g of dandelion provide more than 15% of DRVs)
- **Source of vitamin B1** (100 g of dandelion provide more than 15% of DRVs)

HEALTH CLAIMS (FOR A CONSUMPTION OF 100 G OF DANDELION)

Vitamin K1

- Vitamin K1 contributes to:
 - maintenance of normal bones,
 - normal blood clotting.

Vitamin A

- Vitamin A has a role in the process of cell specialisation.
- Vitamin A contributes to:

- maintenance of normal skin,
- maintenance of normal mucous membranes,
- maintenance of normal vision,
- normal iron metabolism,
- normal function of the immune system.

Vitamin C

- Vitamin C contributes to:
 - normal function of the immune system during and after intense physical exercise,
 - normal collagen formation for the normal function of blood vessels,
 - normal collagen formation for the normal function of bones,
 - normal collagen formation for the normal function of cartilage,
 - normal collagen formation for the normal function of gums,
 - normal collagen formation for the normal function of skin,
 - normal collagen formation for the normal function of teeth,
 - normal energy-yielding metabolism,
 - normal functioning of the nervous system,
 - normal psychological function,
 - normal function of the immune system,
 - protection of cells from oxidative stress,
 - reduction of tiredness and fatigue,
 - regeneration of the reduced form of vitamin E.
- Vitamin C increases iron absorption.

Vitamin E

- Vitamin E contributes to the protection of cells from oxidative stress.

Iron

- Iron contributes to:
 - normal cognitive function,
 - normal energy-yielding metabolism,
 - normal formation of red blood cells and haemoglobin,
 - normal oxygen transport in the body,
 - normal function of the immune system,
 - reduction of tiredness and fatigue,
 - normal cognitive development of children.
- Iron plays a role in the process of cell division.

Potassium

- Potassium contributes to:
 - normal functioning of the nervous system,
 - normal muscle function,
 - maintenance of normal blood pressure.

Vitamin B6

- Vitamin B6 contributes to:
 - normal cysteine synthesis,
 - normal homocysteine metabolism,
 - normal energy-yielding metabolism,
 - normal functioning of the nervous system,
 - normal protein and glycogen metabolism,
 - normal psychological function,
 - normal red blood cell formation,
 - normal function of the immune system,
 - reduction of tiredness and fatigue,
 - regulation of hormonal activity.

Vitamin B1 or thiamine

- Thiamine contributes to:
 - normal energy-yielding metabolism,
 - normal functioning of the nervous system,
 - normal psychological function,
 - normal function of the heart.

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