

FICHE NUTRITIONNELLE

RASPBERRY



Apport calorique

49,20 kcal pour 100 g

86,80 g Eau

4,30 g Fibres

5,83 g Glucides

0,44 mg Manganèse

38,10 µg Vitamine B9

Raw product



DESCRIPTION

- The raspberry bush (*Rubus idaeus*) belongs to the Rosaceae family.

PHYSICAL AND ORGANOLEPTIC CHARACTERISTICS

- Fruits of *Rubus* species are known to be **rich in antioxidant components**, especially **vitamin C, carotenoids and polyphenols** (anthocyanins, flavonols, flavan-3-ols, phenolic acids, tannins, etc.) ([Kaume, 2012](#); [Rao, 2010](#); [Szajdek, 2008](#)).
- Raspberries range in colour from dark purple to yellow ([Rafique, 2016](#)).
- **Anthocyanins** and **carotenoids** are considered to be the **main pigments involved in raspberry colouration** ([Rafique, 2016](#)).
- While red raspberries owe their colour to anthocyanins, mainly cyanidin derivatives ([Melo, 2000](#); [Snyder, 2012](#); [Szajdek, 2008](#)), yellow varieties owe their colour to carotenoids, mostly lutein, but especially to the absence of anthocyanins ([Carvalho, 2013](#)).
- The composition of carotenoids, chlorophyll derivatives, and tocopherols has been studied in raspberries. The results indicate a **radical change in the pigment profile during ripening**, with a very significant reduction in β -carotene and chlorophyll derivatives, while lutein (xanthophyll) decreases but to a lesser extent. On the other hand, esterified lutein increases. This composition may vary depending on variety and other factors such as environmental conditions ([Carvalho, 2013](#)).
- The raspberry is also known to be a fragrant and tart berry. Among the main volatile aroma compounds of raspberry, there are mainly C6 compounds ((Z)-hexenol, hexenal, (E)-2-hexenal, etc.), lactones, (δ -octalactone, δ -decalactone, etc.) and terpene derivatives (geraniol, α -ionone, β -ionone, terpinen-4-ol, etc.) ([Hansen, 2016](#)).
- Ketone compounds have also been identified. Among them, 4-(4-hydroxyphenyl)butan-2-one, better known as raspberry ketone, is believed to be the source of the characteristic aroma of this fruit ([Koeduka, 2011](#)). This compound is also designated as a synthetic flavouring agent by the US Food and Drug Administration ([Kshatriya, 2019](#)).

COMPOSITION CHARACTERISTICS (EXCLUDING MACRONUTRIENTS, VITAMINS AND MINERALS)

- Red raspberry is **rich in anthocyanins**, whose **potential effects on obesity, chemoprevention, inflammation and immune regulation** have been demonstrated by several scientific works ([Teng, 2017](#); [Wu, 2018](#)).
- Following raspberry consumption, **two novel triterpenoids**, described to have **potential anticancer activities**, have been found in ileal fluids, indicating their availability to the colon in vivo ([McDougall, 2017](#)).
- Researchers have shown for the first time that raspberry metabolites present in the gastrointestinal fraction appear to protect neuronal and microglial cells against oxidative stress and inflammation. The authors attribute these effects to raspberry polyphenols, which are thought to present a dietary pathway towards delaying or ameliorating neurodegenerative dysfunction ([Garcia, 2017](#)).

COMPOSITION ET ANALYSE NUTRITIONNELLE

RAW

The following values are approximate and depend on variety, season, ripeness, cultivation conditions, etc. The raspberry provides an average of **49.20 calories (kcal)** per 100 g, i.e. **206 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 raspberries.

MACRONUTRIMENTS

Valeurs

Constituant (g)	Teneur moyenne	Min-Max pour 100 g	% VNR
Eau	86,80	81,80 - 88,50	-
Fibres	4,30	4,10 - 8,20	-
Glucides	5,83	4,66 - 11,20	2,24
<i>dont Sucres</i>	5,40	3,60 - 9,70	6
Lipides	0,80	0,07 - 1,68	1,14
<i>dont Acides Gras Saturés</i>	0,13	-	0,65
Protéines	1,19	0,92 - 1,70	2,38

Sources

Constituant (g)	Quantité	Min-Max	% VNR
Eau	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	-
Fibres	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	-
Glucides	Ciqual 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
<i>dont Sucres</i>	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Lipides	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
<i>dont Acides Gras Saturés</i>	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Constituant (g)	Quantité	Min-Max	% VNR
Protéines	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Zoom on carbohydrates

- Raspberries contain a quantity of carbohydrates (5.83 g per 100 g) which is well below the average content found in fresh fruit: approximately 11.31 g per 100 g.
- These are mainly fructose (2.80 g per 100 g), glucose (2.10 g per 100 g) and sucrose (0.50 g per 100 g).

Zoom on fibres

- Raspberries are a **source of fibre*** as they contain more than 3 g of fibre per 100 g of fruit, i.e. 4.30 g per 100 g.
- They contain more than the average content found in fresh fruit (2.77 g per 100 g).

Zoom on proteins

- The protein content of raspberries (1.19 g per 100 g) is higher than the average amount found in fresh fruit: 0.93 g per 100 g.

Zoom on lipids

- The fat content of raspberries (0.80 g per 100 g) is higher than the average amount found in fresh fruit: 0.56 g per 100 g.
- Raspberries are **low in fat*** as they contain 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)	16	NC - 32	2
Chlorure (mg)	< 20	-	-
Cuivre (mg)	0,04	0,032 - 0,16	4
Fer (mg)	0,40	NC - 1,08	2,86
Iode (µg)	< 20	-	-
Magnésium (mg)	20	13 - 32	5,33
Manganèse (mg)	0,44	0,32 - 1,81	22

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Phosphore (mg)	29	21 - 37	4,14
Potassium (mg)	170	93 - 206	8,50
Sélénium (µg)	< 20	-	-
Sodium (mg)	< 5	0 - NC	-
Zinc (mg)	0,24	NC - 0,79	2,40

Sources

Constituant	Quantité	Min-Max	% VNR
Calcium (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2017)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Chlorure (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Cuivre (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Fer (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Iode (µg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Magnésium (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Manganèse (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Phosphore (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Constituant	Quantité	Min-Max	% VNR
Potassium (mg)	Ciqua 2020 (valeur issue des analyses Ciqua-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Sélénium (µg)	Ciqua 2020 (valeur issue des analyses Ciqua-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Sodium (mg)	Ciqua 2020 (valeur issue des analyses Ciqua-Aprifel 2018)	-	-
Zinc (mg)	Ciqua 2020 (valeur issue des analyses Ciqua-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Zoom on minerals and trace elements

- Raspberry is a **source of manganese** as it provides the equivalent of 22% of DRVs, i.e. 0.44 mg per 100 g.
- It also contains a potassium content equivalent to 8.50 % of DRVs, i.e. 170 mg per 100 g.
- The other minerals and trace elements are present in quantities representing less than 6% of DRVs.

VITAMINES

Valeurs

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Provitamine A Béta-carotène (µg)	100	0 - NC	-
Équivalent Vitamine A (µg)	16,67	0 - NC	2,08
Vitamine B1 (mg)	< 0,015	0,012 - 0,063	-
Vitamine B2 (mg)	0,02	NC - 0,06	1,43
Vitamine B3 (mg)	0,35	NC - 0,92	2,19
Vitamine B5 (mg)	0,85	0,20 - NC	14,17
Vitamine B6 (mg)	0,032	NC - 0,074	2,29
Vitamine B9 (µg)	38,10	7 - 41	19,05

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Vitamine C (mg)	18,70	11,20 - 37	23,38
Vitamine E (mg)	0,88	0,48 - NC	7,33
Vitamine K1 (µg)	5,02	NC - 9,90	6,69

Sources

Constituant	Quantité	Min-Max	% VNR
Provitamine A Béta-carotène (µg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	-
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)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B2 (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B3 (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B5 (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B6 (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B9 (µg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine C (mg)	Ciqual 2020 (valeur issue des analyses Ciqual-Aprifel 2017)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Constituant	Quantité	Min-Max	% VNR
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 (valeur issue des analyses Ciquel-Aprifel 2018)	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Zoom on vitamins

- Raspberry is a **source of**:
 - vitamin C**, as it provides the equivalent of 23.38% of DRVs, i.e. 18.70 mg per 100 g;
 - vitamin B9**, as it provides the equivalent of 19.05 % of DRVs, i.e. 38.10 µg per 100 g.
- As for other vitamins, raspberries also contain a significant amount of **vitamin B5**, as they represent 14.17% of DRVs, i.e. 0.85 mg per 100 g. Moreover, according to the Ciquel 2020 table, raspberries are the fruit that contains the most vitamin B5.
- The other vitamins are present in quantities representing less than 8% of DRVs.

*Calculation made: Beta Carotene / 6 + retinol

POLYPHÉNOLS

Valeurs

Constituant (g)	Teneur moyenne	Min-Max pour 100 g
Flavonoïdes (mg)	48,44	-
<i>dont Flavanols (mg)</i>	17,12	-
<i>dont Anthocyanes (mg)</i>	31,32	-
Acides Phénoliques (mg)	11,78	-
<i>dont Acides Hydroxybenzoïques (mg)</i>	11,78	-
Polyphénols totaux	60,22	-

Sources

Constituant (g)	Quantité	Min-Max
Flavonoïdes	Etude CTIFL-Aprifel 2017-2018 Méthode utilisée : Chromatographie	-

Constituant (g)	Quantité	Min-Max
<i>dont Flavanols</i>	Etude CTIFL-Aprifel 2017-2018 Méthode utilisée : Chromatographie	-
<i>dont Anthocyanes</i>	Etude CTIFL-Aprifel 2017-2018 Méthode utilisée : Chromatographie	-
Acides Phénoliques	Etude CTIFL-Aprifel 2017-2018 Méthode utilisée : Chromatographie	-
<i>dont Acides Hydroxybenzoïques</i>	Etude CTIFL-Aprifel 2017-2018 Méthode utilisée : Chromatographie	-
Polyphénols totaux	Etude CTIFL-Aprifel 2017-2018 Méthode utilisée : Chromatographie	-

Zoom on polyphenols

- Polyphenols are substances with an antioxidant effect.
- Raspberries have a notable quantity of polyphenols, 80% of which are flavonoids.
- Among these flavonoids, **anthocyanins** represent 52% of total polyphenols.

ALLÉGATIONS NUTRITIONNELLES ET DE SANTÉ

ALLÉGATIONS NUTRITIONNELLES ET DE SANTÉ RAW

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

NUTRITION CLAIMS OF RASPBERRIES

- **Low in fat** (100 g of raspberries contain less than 3 g of fat)
- **Source of vitamin C** (100 g of raspberries provide the equivalent of more than 15% of DRVs)
- **Source of manganese** (100 g of raspberries provide the equivalent of more than 15% of DRVs)
- **Source of vitamin B9** (100 g of raspberries provide the equivalent of more than 15% of DRVs)
- **Source of fibre** (100 g of raspberries provide more than 3 g of fibre).

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

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.

Manganese

- Manganese contributes to:
 - normal energy-yielding metabolism,
 - maintenance of normal bones,
 - normal formation of connective tissues,
 - protection of cells from oxidative stress.

Folates or vitamin B9

- Folates contribute to:
 - maternal tissue growth during pregnancy,
 - normal amino acid synthesis,
 - normal blood formation,
 - normal homocysteine metabolism,
 - normal psychological function,
 - normal function of the immune system,
 - reduction of tiredness and fatigue.
- Folates have a role in the process of cell division.

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