

FICHE NUTRITIONNELLE

COMMON BEAN



Apport calorique

32,20 kcal pour 100 g

90,40 g Eau

2,85 g Fibres

4,14 g Glucides

0,23 mg Manganèse

224 mg Potassium

Raw product



DESCRIPTION

- The common bean (*Phaseolus vulgaris* L. cv. Top Crop) belongs to the Fabaceae family.
- It is one of the oldest crops in the world ([Pereira, 2014](#)).

PHYSICAL AND ORGANOLEPTIC CHARACTERISTICS

- Green bean pods can be harvested before they are ripe and are consumed cooked ([Campa, 2018](#)).
- **Linoleic and linolenic acids** are thought to be the main volatile compounds in green beans ([Feng, 2018](#)).
- Linalool, from the terpenoid family, 1-octen-3-ol and 3-hexen-1-ol, derivatives of fatty acid metabolism, are thought to be the volatile compounds responsible for the aroma of green beans ([Wallace, 2018](#)).

COMPOSITION CHARACTERISTICS (EXCLUDING MACRONUTRIENTS, VITAMINS AND MINERALS)

- Common beans contain significant amounts of plant protein. They also provide minerals, fibre, thiamine, folic acid and phytochemicals with **analgesic** and neuroprotective **properties** ([Castro-Guerrero, 2016](#)).
- They contains significant amounts of **polyphenols** that present antioxidant properties that enable the prevention of degenerative diseases such as cancers or metabolic syndromes ([Ganesan, 2017](#)).
- Other vitamins and carotenoids found in green beans include **vitamin C**, **β-carotene**, **lutein**, **zeaxanthin**, **α-tocopherol** and **phyloquinone** ([Myers, 2019](#)).
- Seventy-two phenolic compounds have been identified including 10 phenolic acids and 59 flavonoids. Among them, **quercetin**, **kaempferol**, **catechin**, **epicatechin**, **chlorogenic acids** and **procyanidins** are present ([Myers, 2019](#)).

COMPOSITION ET ANALYSE NUTRITIONNELLE

RAW

The following values are approximate and depend on variety, season, ripeness, cultivation conditions, etc. Raw green beans **are low in energy*** as they provide an average of **32.20 calories (kcal)** per 100 g, i.e. **135 kJ**.

COMPOSITION TABLES

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

*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.

MACRONUTRIMENTS

Valeurs

Constituant (g)	Teneur moyenne	Min-Max pour 100 g	% VNR
Eau	90,4	89,3 - 93,10	-
Fibres	2,85	2,20 - 3,80	-
Glucides	4,14	0 - NC	1,59

Constituant (g)	Teneur moyenne	Min-Max pour 100 g	% VNR
<i>dont Sucres</i>	3,26	2,61 - 3,66	3,62
Lipides	0,21	0 - 0,61	0,30
<i>dont Acides Gras Saturés</i>	0,06	0,05 - 0,069	0,30
Protéines	1,85	1,25 - 2,50	3,70

Sources

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

Zoom on carbohydrates

- The carbohydrate content of raw green beans (4.14 g per 100 g) is slightly lower than the average amount found in raw vegetables (4.45 g per 100 g). Cooked green beans **are low in sugar*** as they contain no more than 5 g per 100 g.
- Their carbohydrates are mainly fructose (1.04 g per 100 g), glucose (0.99 g per 100 g) and sucrose (0.45 g per 100 g).

Zoom on fibres

- The fibre content of raw green beans (2.85 g per 100 g) is significant. It is also higher than the average amount found in raw vegetables (2.43 g per 100 g).

Zoom on proteins

- The protein content of raw green beans (1.85 g per 100 g) is almost equivalent to the average amount found in raw vegetables (1.87 g per 100 g).

Zoom on lipids

- Raw green beans **are fat-free*** as they contain less than 0.5 g per 100 g.

MINÉRAUX ET OLIGO-ÉLÉMENTS

Valeurs

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Calcium (mg)	48,50	37 - 73	6,06
Chlorure (mg)	16	9 - 23	2
Cuivre (mg)	0,063	0,026 - 0,10	6,30
Fer (mg)	1,02	0,61 - 1,57	7,29
Iode (µg)	0,80	0,60 - 1,30	0,53
Magnésium (mg)	21	15,60 - 28	5,60
Manganèse (mg)	0,23	0,10 - 0,39	11,50
Phosphore (mg)	38,50	36 - 45	5,50
Potassium (mg)	224	209 - 300	11,20
Sélénium (µg)	0,30	NC - 1	0,55
Sodium (mg)	3,85	1,50 - 8	-
Zinc (mg)	0,32	0,24 - 0,60	3,20

Sources

Constituant	Quantité	Min-Max	% VNR
Calcium (mg)	Ciqual 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

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

- Raw green beans contain significant amounts of **manganese** and **potassium**. In fact, they provide the equivalent of:
 - 11.50% of DRVs for manganese, i.e. 0.23 mg per 100 g,
 - 11.20% of DRVs for potassium, i.e. 224 mg per 100 g.
- The other minerals and trace elements are present in quantities representing less than 8% of DRVs.

VITAMINES

Valeurs

Constituant	Teneur moyenne	Min-Max pour 100 g	% VNR
Provitamine A Béta-carotène (µg)	379	252 - 510	-
Équivalent Vitamine A (µg)	63,17	42 - 85	7,90
Vitamine B1 (mg)	0,086	0,03 - 0,14	7,82
Vitamine B2 (mg)	0,11	0,05 - 0,14	7,86
Vitamine B3 (mg)	0,72	0,49 - 0,92	4,50
Vitamine B5 (mg)	0,14	0,05 - 0,28	2,33
Vitamine B6 (mg)	0,12	0,059 - 0,16	8,57
Vitamine B9 (µg)	48,50	19 - 64	24,25
Vitamine C (mg)	13,60	5,90 - 21	17
Vitamine E (mg)	0,36	0,30 - 0,41	3
Vitamine K1 (µg)	14,40	-	19,20

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

Constituant	Quantité	Min-Max	% VNR
Vitamine B2 (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B3 (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B5 (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B6 (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine B9 (µg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine C (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine E (mg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011
Vitamine K1 (µg)	Ciqua 2020	-	Règlement (UE) N°1169/2011 du parlement Européen et du conseil du 25 octobre 2011

Zoom on vitamins

- Raw green beans are a **source of**:
 - **vitamin B9**, as they provide the equivalent of 24.25% of DRVs, i.e. 48.50 µg per 100 g;
 - **vitamin K1**, as they provide the equivalent of 19.20% of DRVs, i.e. 14,40 µg per 100 g ;
 - **vitamin C**, as they provide the equivalent of 17% of DRVs i.e. 13.60 mg per 100 g.

- The other vitamins represent less than 9% of DRVs.

*Calculation made: Beta Carotene / 6 + retinol

POLYPHÉNOLS

Valeurs

Constituant (g)	Teneur moyenne	Min-Max pour 100 g
Flavonoïdes (mg)	7,97	1,35 - 25,38
<i>dont Flavonols (mg)</i>	5,55	1,35 - 12,15
<i>dont Flavanols (mg)</i>	2,42	0 - 13,23
Polyphénols totaux	7,97	1,35 - 25,38

Sources

Constituant (g)	Quantité	Min-Max
Flavonoïdes	Phénol-Explorer version 3.6 Méthode utilisée : chromatographie	-
<i>dont Flavonols</i>	Phénol-Explorer version 3.6 Méthode utilisée : chromatographie	-
<i>dont Flavanols</i>	Phénol-Explorer version 3.6 Méthode utilisée : chromatographie	-
Polyphénols totaux	Phénol-Explorer version 3.6 Méthode utilisée : chromatographie	-

Zoom on polyphenols

- Polyphenols are substances with an antioxidant effect.
- Raw green beans have a low content of total polyphenols. They consist of 69.64% **flavonols** and 30.36% **flavanols**, from the flavonoid family.

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 raw green beans, the following claims may be used:

NUTRITION CLAIMS OF RAW GREEN BEANS

- **Low in energy** (100 g of raw green beans provide less than 40 kcal)
- **Fat-free** (100 g of raw green beans contain less than 0.5 g of fat)
- **Low in sugar** (100 g of raw green beans contain less than 5 g of sugar)

- **Source of vitamin B9** (100 g of raw green beans provide the equivalent of more than 15% of DRVs)
- **Source of vitamin K1** (100 g of raw green beans provide the equivalent of more than 15% of DRVs)
- **Source of vitamin C** (100 g of raw green beans provide the equivalent of more than 15% of DRVs)

HEALTH CLAIMS (FOR A CONSUMPTION OF 100 G OF RAW GREEN BEANS)

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.

Vitamin K1

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

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.

ALLÉGATIONS NUTRITIONNELLES ET DE SANTÉ COOKED

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 cooked green beans, the following claims may be used:

NUTRITION CLAIMS OF COOKED GREEN BEANS

- **Low in energy** (100 g of cooked green beans provide less than 40 kcal)
- **Fat-free** (100 g of cooked green beans contain less than 0.5 g of fat)
- **Low in sugar** (100 g of cooked green beans contain less than 5 g of sugar)
- **Source of fibre** (100 g of cooked green beans provide more than 3 g of fibre)
- **Source of vitamin B9** (100 g of cooked green beans provide the equivalent of more than 15% of DRVs)

HEALTH CLAIMS (FOR A CONSUMPTION OF 100 G OF COOKED GREEN BEANS)

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.