



# Nutritive value of Sugarcane juice

## Table of contents

1. [Composition of sugarcane juice \(Saccharum officinarum\)](#)
  - i. [Proximate principles and dietary fibre](#)
  - ii. [Amino Acid Profile](#)
  - iii. [Water soluble vitamins](#)
  - iv. [Fat Soluble vitamins](#)
  - v. [Carotenoids](#)
  - vi. [Minerals and Trace Elements](#)
  - vii. [Starch and individual sugars](#)
  - viii. [Fatty Acid Profile](#)
  - ix. [Organic Acids](#)
  - x. [Polyphenols](#)
  - xi. [Oligosaccharides](#)
2. [Medicinal effects of sugarcane juice](#)

## Composition of sugarcane juice (Saccharum officinarum)

### Proximate principles and dietary fibre

1. Moisture (Water) -  $85.54 \pm 0.99$  g
2. Protein (PROTCNT) -  $0.16 \pm 0.03$  g
3. Ash -  $0.23 \pm 0.02$  g
4. Total fat (FATCE) -  $0.40 \pm 0.05$  g
5. Dietary fibre
  - Total -  $0.56 \pm 0.09$  g
  - Insoluble -  $0.40 \pm 0.05$  g
  - Soluble -  $0.16 \pm 0.05$  g
6. Carbohydrate -  $13.11 \pm 0.93$  g
7. Energy -  $242 \pm 18$  KJ

### Amino Acid Profile

1. Histidine -  $1.79 \pm 0.17$  g
2. Isoleucine -  $3.81 \pm 0.15$  g
3. Leucine -  $3.55 \pm 0.08$  g

3. Leucine -  $3.55 \pm 0.08$  g
4. Lysine -  $2.53 \pm 0.29$  g
5. Methionine -  $0.40 \pm 0.06$  g
6. Cystine -  $0.52 \pm 0.14$  g
7. Phenylalanine -  $5.11 \pm 0.29$  g
8. Threonine -  $3.02 \pm 0.10$  g
9. Tryptophan -  $0.75 \pm 0.16$  g
10. Valine -  $4.19 \pm 0.27$  g
11. Alanine -  $5.22 \pm 0.36$  g
12. Arginine -  $3.43 \pm 0.16$  g
13. Aspartic Acid -  $30.49 \pm 1.15$  g
14. Glutamic Acid -  $11.60 \pm 0.54$  g
15. Glycine -  $2.70 \pm 0.22$  g
16. Proline -  $2.46 \pm 0.25$  g
17. Serine -  $3.55 \pm 0.31$  g
18. Tyrosine -  $2.35 \pm 0.19$  g

### Water soluble vitamins

1. Thiamine (B1) -  $0.03 \pm 0.003$  mg
2. Riboflavin (B2) -  $0.04 \pm 0.004$  mg
3. Niacin (B3) -  $0.14 \pm 0.02$  mg
4. Pantothenic Acid (B5) -  $0.07 \pm 0.01$  mg
5. Total B6 -  $0.40 \pm 0.089$  mg
6. Biotin (B7) -  $0.59 \pm 0.06$   $\mu$ g
7. Total Folates (B9) -  $44.53 \pm 4.14$   $\mu$ g
8. Total Ascorbic Acid -  $6.73 \pm 1.56$  mg

### Fat Soluble vitamins

1. Ergocalciferol (D2) -  $0.41 \pm 0.01$   $\mu$ g
2. Tocopherols
  - Alpha -  $0.02 \pm 0.01$  mg
3.  $\alpha$ -Tocopherol Equivalent -  $0.02 \pm 0.01$  mg

### Carotenoids

1. Lutein -  $8.36 \pm 2.40$   $\mu$ g
2.  $\beta$  - Carotene -  $7.87 \pm 0.37$   $\mu$ g
3. Total Carotenoids -  $41.23 \pm 4.16$   $\mu$ g

### Minerals and Trace Elements

1. Aluminium (Al) -  $0.14 \pm 0.12$  mg
2. Calcium (Ca) -  $18 \pm 4.07$  mg
3. Chromium (Cr) -  $0.002 \pm 0.000$  mg

3. Chromium (Cr) -  $0.002 \pm 0.000$  mg
4. Cobalt (Co) -  $0.001 \pm 0.000$  mg
5. Copper (Cu) -  $0.03 \pm 0.01$  mg
6. Iron (Fe) -  $1.12 \pm 0.27$  mg
7. Lead (Pb) -  $0.001 \pm 0.001$  mg
8. Lithium (Li) -  $0.001 \pm 0.000$  mg
9. Magnesium (Mg) -  $13.03 \pm 6.37$  mg
10. Manganese (Mn) -  $0.33 \pm 0.23$  mg
11. Nickel (Ni) -  $0.002 \pm 0.000$  mg
12. Phosphorus (P) -  $22.08 \pm 5.08$  mg
13. Potassium (K) -  $22.08 \pm 5.08$  mg
14. Sodium (Na) -  $1.16 \pm 0.28$  mg
15. Zinc (Zn) -  $0.14 \pm 0.07$  mg

### Starch and individual sugars

1. Total Available CHO -  $12.85 \pm 0.80$  g
2. Fructose -  $0.55 \pm 0.22$  g
3. Glucose -  $2.27 \pm 0.49$  g
4. Sucrose -  $10.03 \pm 0.33$  g
5. Total Free Sugars -  $12.85 \pm 0.80$  g

### Fatty Acid Profile

1. Palmitic (C16:0) -  $119 \pm 4.4$  mg
2. Stearic (C18:0) -  $20.80 \pm 2.38$  mg
3. Oleic (C18:1n9) -  $29.70 \pm 2.99$  mg
4. Linoleic (C18:2n6) -  $14.5 \pm 12.5$  mg
5.  $\alpha$  - Linolenic (C18:3n3) -  $28.34 \pm 4.27$  mg
6. Total Saturated Fatty Acids (TSFA) -  $140 \pm 3.1$  mg
7. Total Mono Unsaturated Fatty Acids (TMUFA) -  $29.70 \pm 2.99$  mg
8. Total Poly Unsaturated Fatty Acids (TPUFA) -  $173 \pm 16.1$  mg

### Organic Acids

1. Citric Acid -  $3.55 \pm 1.01$  mg
2. Mallic Acid -  $2.04 \pm 0.49$  mg
3. Quinic Acid -  $132 \pm 6.2$  mg
4. Succinic Acid -  $459 \pm 5.4$  mg

### Polyphenols

1. Ferulic acid -  $0.31 \pm 0.08$  mg
2. Total poly phenols -  $5.25 \pm 1.27$  mg

### Oligosaccharides

## Oligosaccharides

1. Raffinose -  $0.03 \pm 0.011$  g

Source : [Indian Food Composition Tables, 2017 by National Institute of Nutrition](#)

### Medicinal effects of sugarcane juice

- Sugarcane juice cures a sore throat, cold and flu.
- It has no simple sugars. People having Diabetics can therefore enjoy it without worrying about soaring blood sugar levels (those with type 2 diabetes should still have limited sugarcane juice).
- It provides glucose to the body, burned by the muscles to provide the body natural energy. It re-hydrates the human body fatigued from heat and physical activity. It's known to boost performance in athletes and manual laborers.
- It's recommended for fevers which cause great protein loss from the body. Liberal consumption of sugarcane juice provides the body with protein during febrile disorders. It also brings down high body temperatures during fevers.
- It's an ideal thirst quencher and cooling drink during summers. It keeps the body hydrated.
- The easily digestible sugar in sugarcane juice helps in speedy recovery from jaundice. The steep fall in glucose levels during jaundice; may be replenished by having 3 to 4 glasses of sugarcane juice daily.
- It's good for the digestive system and also helps with constipation because of its high potassium content.
- It has a wide range of compounds in addition to sucrose which bestows it with wound healing properties and strengthens the immune system.
- Regular intake of sugarcane juice strengthens the stomach, kidneys, heart, eyes, brain and sex organs.
- It lowers body cholesterol - both LDL and triglycerides.

---

Source: <https://data.vikaspedia.in/short/lc?k=gVYtpQKf3wDAwkF80fsDag>

