Daily Sugar Production, Bags and Molasses

Sugar made per day and per hour, bags filled and molasses made per day from the daily crush, recovery % cane and molasses % cane.

Method: Definitions

Input parameters

Unit system: SI

Parameter	Value	Unit
Cane crushed per day	5,000.0	t/d
Recovery (sugar % cane)	11.000	%
Final molasses % cane	4.5000	%
Bag mass	50.000	kg

Calculated results

Parameter	Value	Unit
Sugar per day	550.00	t/d
Sugar per hour (day average)	22.917	t/h
Bags per day	11,000	
Molasses per day	225.00	t/d

Formula and method

$$\dot{m}_S = TCD\,R, \quad N_b = \frac{\dot{m}_S}{m_b}, \quad \dot{m}_M = TCD\,FM$$

Variables

TCD	Cane crushed per day	kg/s
R	Recovery (sugar % cane)	-
FM	Final molasses % cane	-
m_b	Bag mass	kg
$\dot{m}_S$	Sugar per day	kg/s
$\dot{m}_{S,h}$	Sugar per hour (day average)	kg/s
N_b	Bags per day	-
$\dot{m}_M$	Molasses per day	kg/s

Method and standards

Definitions.

Assumptions and limits

- Average day: sugar per hour is the daily figure over 24 h. With stoppages the hourly rate while crushing is higher (divide by the hours actually crushed).

References

- Definitions

Report details

Report reference	FCC-5VY4-RMJW (the same inputs always give the same reference)
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Calculator	Daily Sugar Production, Bags and Molasses
Method last reviewed	13 November 2026
Software release	FireCAD Calc, release of 17 November 2026
Release checks	2 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/sugar-ethanol/chemical-control/daily-sugar-production

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.