Value of Sugar Losses per Day and Season

Sugar lost per day in bagasse, filter cake, molasses and undetermined losses from losses % cane and the crush, and its value per day and per season at a sugar price.

Method: Definitions of factory losses (pol balance, ISSCT); valuation at the sugar price

Input parameters

Unit system: SI

Parameter	Value	Unit
Cane crushed per day	5,000.0	t/d
Pol lost in bagasse % cane	0.60000	%
Pol lost in filter cake % cane	0.070000	%
Pol lost in final molasses % cane	1.6000	%
Undetermined losses % cane	0.30000	%
Pol of the sugar made	99.500	%
Sugar price per tonne	35,000	
Crushing days in the season	150.00	

Calculated results

Parameter	Value	Unit
Total pol lost % cane	2.5700	%
Sugar equivalent lost per day	129.15	t/d
Value lost per day	4,520,101	
Value lost per season	6.7802e+08	
Value of the undetermined losses per season	7.9146e+07	

Notes for this case

- Prices are in any currency per tonne; values follow in the same currency. Molasses still has value as distillery feed, which this does not credit.

Formula and method

$$\dot{m}_L = C_d \frac{\Sigma L}{Pol_s}, \quad V_d = \dot{m}_L p, \quad V_s = V_d N$$

Variables

C_d	Cane crushed per day	kg/s
L_B	Pol lost in bagasse % cane	-
L_C	Pol lost in filter cake % cane	-
L_M	Pol lost in final molasses % cane	-
L_U	Undetermined losses % cane	-
Pol_s	Pol of the sugar made	-
p	Sugar price per tonne	-
N	Crushing days in the season	-
ΣL	Total pol lost % cane	-
$\dot{m}_L$	Sugar equivalent lost per day	kg/s
V_d	Value lost per day	-
V_s	Value lost per season	-

V_U	Value of the undetermined losses per season	-

Method and standards

Loss accounting.

Assumptions and limits

- Steady crush over the season.
- All lost pol is valued at the full sugar price, including the pol that unavoidably stays in final molasses; the molasses credit is not deducted, so the figure overstates the recoverable value.

References

- Definitions of factory losses (pol balance, ISSCT); valuation at the sugar price

Report details

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Method last reviewed	13 November 2026
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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/sugar-loss-value

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.