# Bio-Composting: Spent Wash Absorbed by Press Mud

Spent wash a press mud composting yard can absorb in a season from the press mud available and the spent-wash-to-press-mud ratio, the balance left and the yard area.

**Method:** Mass balance; ratio and area from consent conditions (CPCB guidance values as user inputs)

## Input parameters

Unit system: SI

| Parameter | Value | Unit |
|---|---|---|
| Press mud for the season | 25,000 | t |
| Spent wash per tonne of press mud | 2.5000 | $m^3/t$ |
| Spent wash to dispose of in the season | 90,000 | $m^3$ |
| Yard area per tonne of press mud ($m^2$ per t) | 0.60000 | |

## Calculated results

| Parameter | Value | Unit |
|---|---|---|
| Spent wash absorbed | 62,500 | $m^3$ |
| Spent wash left for other treatment | 27,500 | $m^3$ |
| Composting yard area | 15,000 | $m^2$ |

**Notes for this case**

- The ratio and yard area are set by the consent conditions and the composting practice: use your approved figures.

## Formula and method

$$V_a = \min(V_{sw}, M_{pm} r), \quad A = \frac{M_{pm}}{1000\ \text{kg/t}}\, a$$

### Variables

| | | |
|---|---|---|
| $M_{pm}$ | Press mud for the season | kg |
| $r$ | Spent wash per tonne of press mud | $m^3/kg$ |
| $V_{sw}$ | Spent wash to dispose of in the season | $m^3$ |
| $a$ | Yard area per tonne of press mud | $m^2$ per t (entered as a number) |
| $V_a$ | Spent wash absorbed | $m^3$ |
| $V_x$ | Spent wash left for other treatment | $m^3$ |
| $A$ | Composting yard area | $m^2$ |

### Method and standards

Mass balance.

### Assumptions and limits

- Season totals.

### References

- Mass balance; ratio and area from consent conditions (CPCB guidance values as user inputs)

## Report details

| | |
|---|---|
| Report reference | FCC-XRVF-XTRJ (the same inputs always give the same reference) |
| Generated | 17 November 2026, 19:37 UTC |
| Calculator | Bio-Composting: Spent Wash Absorbed by Press Mud |
| 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/spent-wash-zld/compost-press-mud-spent-wash

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.