

Results of the Horse Cover bedding compostability analysis

Taken from the approved and accredited environmental, toxicological and agri-food monitoring and analysis laboratory report.



Chemical analysis table :

Analysis	Result	Unit	Standard	Method
Copper (Cu)	9.6	mg/kg dry wt		Miner & AAS/ICP*
Lead (Pb)	<10	mg/kg dry wt		Miner & AAS/ICP*
Mercury (Hg)	< 0.1	mg/kg dry wt		Miner & AAS*
Nickel (Ni)	< 8	mg/kg dry wt		Miner & AAS*
Potassium (K ₂ O)	0.5	% gross		Miner & AAS/ICP*
Calcium (CaO)	0.6	% gross		Miner & AAS/ICP*
Magnesium (MgO)	0.1	% gross		Miner & AAS/ICP*
Zinc (Zn)	35	mg/kg dry wt		Miner & ICP*
Cadmium (Cd)	< 0.5	mg/kg dry wt		Miner & AAS/ICP*
Chromium (Cr)	1.5	mg/kg dry wt		Miner & AAS/ICP*
Organic matter	41.8	% gross	>or=16%	NBN EN 13039*
Total phosphorus (P ₂ O ₅)	0.388	% P205 gross		NBN EN 13650* +CMA/2/IV/C.14*
Total nitrogen (N)	0.42	% gross		Calculated*
Organic nitrogen	0.33	% N gross		Calculated*
Organic carbon	21.5	% gross		VLAM*
Kjeldahl nitrogen (N)	0.42	% gross		NBN EN 13342*
Nitric nitrogen (N-NO ₃)	0.0015	% N gross		CMA/2/IV/C.7*
Ammonium nitrogen (N-NH ₄)	0.095	% N gross		CMA/2/IV/C.7*
C/N ratio	65.15			Calculated*
pH at 20% (water)	6.9		6.5 to 9	Electrochemical*

Uncertainties regarding the bacteriological results :

The uncertainty on the germ count is estimated with a probability >95%.

For the estimated number of germs (<150), the notion of uncertainty is taken into account in the statistical estimate made on the basis of the counts (according to amendment A1 of ISO-7218 and XPV08-102 for foodstuffs, and ISO 8199 for water).

Uncertainties on chemical analysis results (confidence limit >or =95 %) :

*Water: pH +/- 0.05U; suspended solids: +/- 9%; conductivity: +/- 1.5%; chlorides: +/- 2%; dissolved oxygen: +/- 6%; total phosphorus: +/- 8%; hardness: +/- 8%; calcium: +/-6%; magnesium: +/-8 %; sodium: +/- 6% potassium: +/- 5%; COD: +/- 8%; manganese: +/- 7%; Iron: +/-8% ; ammonium nitrogen: +/- 8 %; BOD5: +/-10 %; nitrates: +/-4%; nitrites: +/-9%.

*Foodstuffs: pH +/- 0.05U; humidity: +/- 1.5%; ash: +/- 2%; free fats: +/- 2% ; hydroxyproline: +/- 6%; nitrites: +/- 7 %; nitrates +/- 7%; nitrogen +/- 4 %; phosphorus: +/- 9% ; NaCl: +/-6%; Sodium: +/-5%

Conclusion of the environmental, toxicological and agri-food monitoring and analysis laboratory compostability study :

- Low heavy metal content (no compost contamination problem).
- Low levels of K₂O, P₂O₅ and MgO.
- Neutral pH.
- This bedding can be used, as is, as an organic amendment (addition of humus and soil structuring effect) together with a nitrogenous supplement on meadowland, for example. When composted or biomethanised, mixed with organic matter, it provides additional carbon that can be missing from the organic matter (such as kitchen waste).

