Annex XIV
Humanure Composting Monitoring & Operational Evidence

1. Introduction

This annex provides a summary of operational monitoring, management observations, temperature records, photographic evidence, and capacity observations associated with the humanure composting system operating at Oak Court Farm between July 2025 and June 2026.

The purpose of this annex is to demonstrate the practical operation, monitoring, management, and observed performance of the system over an extended period of use.

2. Monitoring Period

Humanure Bay #1 was established on 12 July 2025.

Monitoring records contained within this annex cover the period from July 2025 to June 2026 and include:

- routine operational observations;
- condition monitoring;
- odour observations;
- pest observations;
- temperature monitoring;
- management interventions;
- photographic records; and
- capacity observations.

3. Operational Summary

Over the monitoring period the system remained operational and actively managed.

Recorded observations demonstrate:

- ongoing decomposition activity;
- progressive reduction in material volume;
- continued biological activity throughout the year;
- routine covering of fresh inputs;
- routine monitoring and inspection;
- responsive management interventions where required;
- absence of significant odour issues;
- absence of significant pest issues;
- absence of sustained animal disturbance; and
- continued operational capacity throughout the monitoring period.

4. Temperature Monitoring Summary

Temperature monitoring was undertaken periodically throughout the monitoring period.

Recorded temperatures demonstrated continued biological activity across the composting system, including during winter months.

Observed temperatures generally exceeded ambient conditions and were frequently accompanied by evidence of ongoing decomposition activity, including volume reduction, fungal activity, moisture absorption, and occasional visible steam generation.

Selected recorded temperatures are summarised below.

1/8/25	~70°F	3/2/26	20°C	22/3/26	20°C	29/4/26	20°C	31/5/26	27°C
28/8/25	~65°F	19/2/26	16°C	26/3/26	18°C	3/5/26	22°C	2/6/26	28°C
25/9/25	~65°F	23/2/26	16°C	30/3/26	16°C	7/5/26	24°C	5/6/26	26°C
19/10/25	~65°F	25/2/26	22°C	3/4/26	20°C	11/5/26	22°C	11/6/26	22°C
22/11/25	~62°F	7/3/26	22°C	7/4/26	20°C	15/5/26	20°C	16/6/26	24°C
11/12/25	~62°F	10/3/26	24°C	11/4/26	20°C	19/5/26	24°C		
30/12/25	19°C - 23°C	14/3/26	18°C	15/4/26	20°C	23/5/26	24°C		
20/1/26	12°C	18/3/26	16°C	23/4/26	20°C	30/5/26	27°C		

5. Management Interventions

Monitoring records demonstrate a responsive management approach rather than a passive disposal system.

Examples include:

- adjustment of cover materials;
- routine application of straw cover;
- periodic aeration using hazel poles;
- replacement and improvement of monitoring equipment;
- effective protection against animal disturbance;
- balancing of carbon-rich materials;
- adaptation following severe weather events; and
- routine capacity monitoring.

6. Capacity & Operational Longevity

Humanure Bay #1 was established in July 2025 and remained operational throughout the monitoring period.

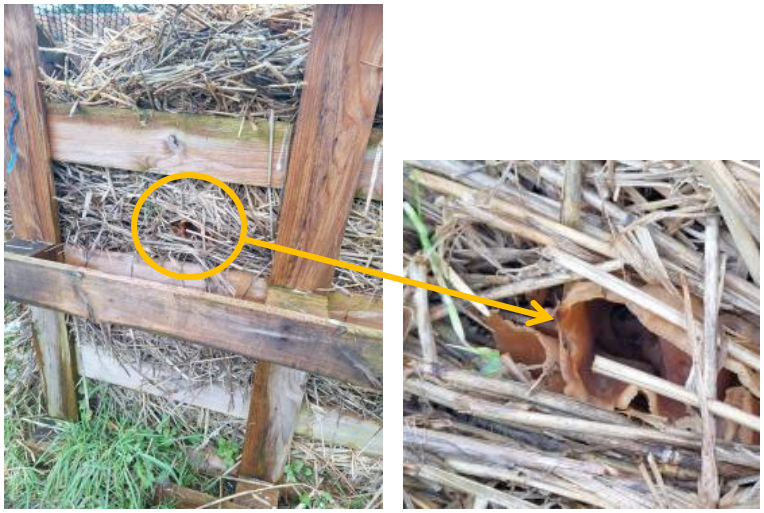
The monitoring records demonstrate that a single composting bay has successfully accommodated and processed approximately one year of humanure inputs arising from occupation by four adults while maintaining operational functionality and ongoing decomposition.

A second composting bay has been prepared to allow implementation of the planned rotational management approach.

This arrangement will allow Bay #1 to remain undisturbed for an extended maturation period following closure before any future use of the resulting compost material.

7. Photographic Evidence

Representative photographs documenting the operation, condition, monitoring, and management of the composting system are provided below.



Fungal growth occurring approximately halfway down humanure bay #1. Photograph taken 19/2/26.



1. Blue line indicates bottom of bay #1.



2. Side view of bay #1.



3. Top of bay, with temperature probe holding mesh in place.



4. Surface of bay after mesh removed, with slightly visible melon rind circled in blue.



5. Temperature probe showing 20°C.



6. Bay #1 after inputs added.



7. Central straw cover bay with rain cover pulled back.



8. Application of straw over fresh inputs.



9. Bay #1 after straw cover applied.



10. Top of bay with animal mesh reapplied and secured with temperature probe.

8. Monitoring Record Extracts

Selected extracts from the operational monitoring log are reproduced below.

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
12/07/2025	11am	Bay #1 established (with DD).	N/A	Wet	None	4 x buckets, with mixed cover materials including: brush, shredded cardboard, cat litter (wooden pellets), straw.	New biological system initated. First inputs well covered with additional straw, and bay protected with animal-resistant wire.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Confirm system operating as intended after initial period.	KP	30/09/2025	Completed		25/09/2025	

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
20/07/2025	11.30am	Bay #1 additional inputs.	Temperature probes ordered.	Wet, Compacted	Ammonia, Faecal, Flies Observed	4 x buckets, with mixed cover	Odours were only slight, with only one or two flies observed. No sign of rodent or animal disturbance.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Careful monitoring in these early establishment stages, to ensure proper biological activity occurring.	KP	20/08/2025	Completed		01/08/2025	Improved cover materials balance expected to improve biological activity. Routine ongoing monitoring anyway.

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
01/08/2025	2.30pm	Bay #1 additional inputs.	Temperature probes not correct length, but provided a nearer-surface reading showing some heat being generated (approx 70F).	Wet, Compacted	Ammonia, Faecal, Flies Observed	4 buckets, with predominantly cat litter (wooden pellets) cover.	Odours still only slight, and only few flies. No sign of rodent or animal disturbance. Aerated using hazel stick, then recovered with straw. (Weather very hot.)

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Improve cover materials to achieve better balance for biological activity to improve.	KP	24/08/2025	Completed		25/09/2025	

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
22/11/2025	11.35am	Bay #1 additional inputs.	Short temp probe rose quickly to 62F.	Optimal	Earthy/Neutral	8 x buckets input, plus toilet bucket emptied.	Notable height drop. Animal screen unaffected by recent high winds. Straw cover still intact. Readily absorbing water from inputs and washout. Insufficient depth for probe, so any increase implies considerably higher temp deeper into the pile. Ambient temp: 10C day, 6C night. No frost/freeze. Wind 7 gusting 14 SW/WSW. Rain light first thing; not raining during inputs and monitoring.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Need to buy longer probe for more accurate readings, and preferably in C, not F.	KP	22/12/2025	Completed		22/12/2025	Probes ordered on 20/12/25, and delivered on 22/12/25.

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
11/12/2025	1.55pm	Bay #1 additional inputs.	Short temp probe rose quickly to 62F.	Optimal	Earthy/Neutral	2/8 buckets input.	Only 2/8 buckets was necessary workload adjustment following Storm Bram, and with no vehicle access / impassable track. KP/DD discussed using blue trolley to move buckets, but DD pointed out routine food transport use (shopping). Sacktrucks used instead. DD/KP.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
06/01/2026		Straw not available for toilet cover recently, so toilet buckets imbalanced (due to whole team sickness - caught from cousins over Christmas).				Rejected hay recovered from sheep added to toilet holding buckets, to assist with balance. Plan to add extra straw when inputting to humanure bay.	

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Add extra straw when inputs go into bay next.	KP	20/01/2026	Completed		20/01/2026	Additional hay added before and after toilet bucket input, then extra straw on top.

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
20/01/2026	10am	Bay #1 additional inputs.	12C	Compacted	Earthy/Neutral	Aerated with hazel stick. 2 x buckets, plus toilet emptied, with additional hay before and after, then extra straw on top.	Felt less compacted when hazel stick pushed in deep. No recent straw cover due to illness, so hay added to buckets, too. New inputs comprising puppy waste, e.g. faeces, wipes and kitchen towel.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Check temperature next time to see if activated again. If not, add more extra hay/straw to achieve correct balance.	KP	05/02/2026	Completed		03/02/2026	

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
03/02/2026	3.30pm	Bay #1 additional inputs.	20C	Optimal	Earthy/Neutral	Toilet bucket only, plus cover.	Temperature clicked up quickly to 20C.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
23/02/2026	1pm	Bay #1 additional inputs.	16C	Compacted	Earthy/Neutral, Animal Disturbance, Flies Observed	Toilet bucket only. Included melon and pineapple rinds, cucmber and potato peelings.	Fruit flies only. Noted animal-resistant cover not in place. Temp still relatively low, so will need leaving for full year to ensure pathogen destruction. Still needs aeration.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Remind DD to put animal-resistant cover over bay after inputs.	KP	23/02/2026	Completed		23/02/2026	

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Peste	Interventions / Inputs	Observations / Notes
25/02/2026	4pm	Bay #1 aeration (no inputs)	22C	Compacted	Earthy/Neutral	Aerated in grid of 9 holes, to approx 80cm deep across central 'input' zone of bay. At fullest depth, hazel stick rotated to open air pockets.	Ambient air temp 11C. Slight fruit smell from melon and pineapple peelings. Temp checked after adjustments at various locations around bay, including down sides, ranging between 16 and 18C, but with one notable 20C at top front, near most recent inputs, but to previous input's depth.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Reassess and re-aerate as part of routine, if required. NB: Will need new hazel stick.	KP	15/03/2026	Completed		30/03/2026	

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Peste	Interventions / Inputs	Observations / Notes
18/03/2026	12pm	Bay #1 additional inputs.	16C	Optimal	Earthy/Neutral, Flies Observed	Toilet bucket only.	Slight increase in flies. No rodent disturbance.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Aerate with hazel stick. NB: Humanure bay #2 may be needed soon.	KP	31/03/2026	Completed		30/03/2026	Aerated using hazel stick. 9 holes in grid to approx. 70cm deep.

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
30/03/2026	9.45am	Bay #1 additional inputs.	16C		Earthy/Neutral, Flies Observed, Animal Disturbance	Toilet bucket only.	?Minor animal disturbance. Mesh cover over straw bay. Possibly wind, but scat observed (?fox) next to hum bay #1, and minor scatter of tissue and eggshell.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
03/04/2026	4.30pm	Bay #1 additional inputs.	20C		Earthy/Neutral, Flies Observed	Toilet bucket only.	More flies, plus midges, but not excessive. No signs of animal disturbance.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
23/04/2026	9am	Bay #1 additional inputs.	20C	Optimal	Earthy/Neutral, Flies Observed	Toilet bucket only.	Minimal flies. No animal disturbance. Pulled back straw from back corner closest to cover bay. Steam rising. Excellent breakdown. Added input here, to spread.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Target close of bay #1 July 2026, for use from July 2027.	KP	15/07/2026	In Progress			

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
07/05/2026	10am	Bay #1 additional inputs.	24C	Optimal	Earthy/Neutral, Flies Observed	Toilet bucket only.	Fruit flies only. No animal disturbance. Level not increasing too much; breakdown clearly happening. Should make it to July, for one full year.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Clear nettles and free access to straw bay in centre.	KP	07/05/2026	Completed		07/05/2026	Nettles cleared and access to straw bay opened.

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
23/05/2026	7.35pm	Bay #1 additional inputs.	24C	Optimal	Earthy/Neutral, Flies Observed	Toilet bucket only.	Slight fruit smell - melon rinds. Fruit flies, and a few midges, but no significant pest load. Reasonably good breakdown. Topped up front left corner (from field view), to balance height.

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
05/06/2026	8pm	Bay #1 additional inputs.	26C	Optimal	Earthy/Neutral	Toilet bucket only.	

Follow-up Require	Follow-up Action	Follow-up Owne	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
11/06/2026	9.30am	Bay #1 additional inputs.	22C	Optimal	Earthy/Neutral	Toilet bucket only.	Draining well in heavy, prolonged rain over several days.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
13/06/2026	5.30pm	Bay #1 additional inputs.			Earthy/Neutral	Toilet bucket only.	

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
16/06/2026	1.45pm	Bay #1 additional inputs.	24C	Optimal	Earthy/Neutral	Toilet bucket only.	Multitudes of very small insects observed. Normal part of biological system for breaking down.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
Yes	Nettles need strimming for access to all sides of bay again.	KP	23/06/2026	Open			

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
18/06/2026	5.15pm	Bay #1 additional inputs.			Earthy/Neutral	Toilet bucket only.	

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

Date	Time	Event / What Happened?	Measurement / Check Resu	Moisture / Condition	Odour / Pest	Interventions / Inputs	Observations / Notes
21/06/2026	11.30am	Bay #1 additional inputs.	28C	Optimal	Earthy/Neutral	Toilet bucket only.	Lots of fly activity in nearby hedgerow and grassland, but no pest issue in humanure bay #1.

Follow-up Require	Follow-up Action	Follow-up Owner	Follow-up Due Da	Follow-up Status	Status Icon	Completed Date	Closure Notes
No							

9. Key Findings from Monitoring

Review of the monitoring records, temperature data, photographic evidence, and observational observations collected between July 2025 and June 2026 demonstrates:

- continuous operation of the composting system throughout the monitoring period;
- successful accommodation and processing of approximately one year of humanure inputs arising from occupation by four adult residents within a single composting bay;
- continued biological activity throughout all seasons, including winter months;
- routine monitoring and management of the system;
- implementation of responsive management interventions where required, including aeration, adjustment of cover materials, and balancing of carbon-rich inputs;
- absence of significant odour issues;
- absence of significant rodent infestation or sustained animal disturbance;
- ongoing reduction in material volume consistent with active decomposition;
- continued operational capacity at the end of the monitoring period; and
- successful preparation of a successor composting bay to facilitate the planned rotational management approach.

Taken together, the monitoring evidence demonstrates that the humanure composting system has functioned as a managed and monitored biological process throughout the monitoring period without significant operational or environmental issues.

10. Summary

The monitoring evidence demonstrates that the humanure composting system operated continuously throughout the monitoring period as a managed and monitored biological process.

The records demonstrate ongoing decomposition activity, routine monitoring, responsive management intervention, continued operational capacity, and the absence of significant operational or environmental issues.