
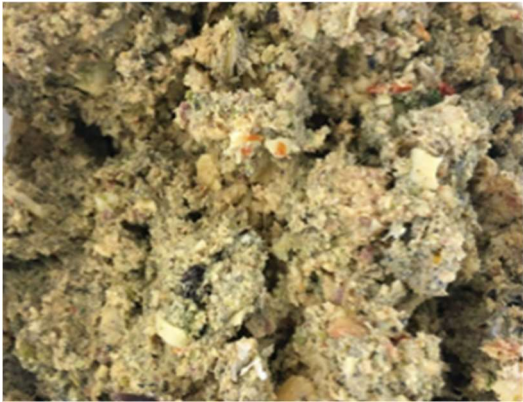


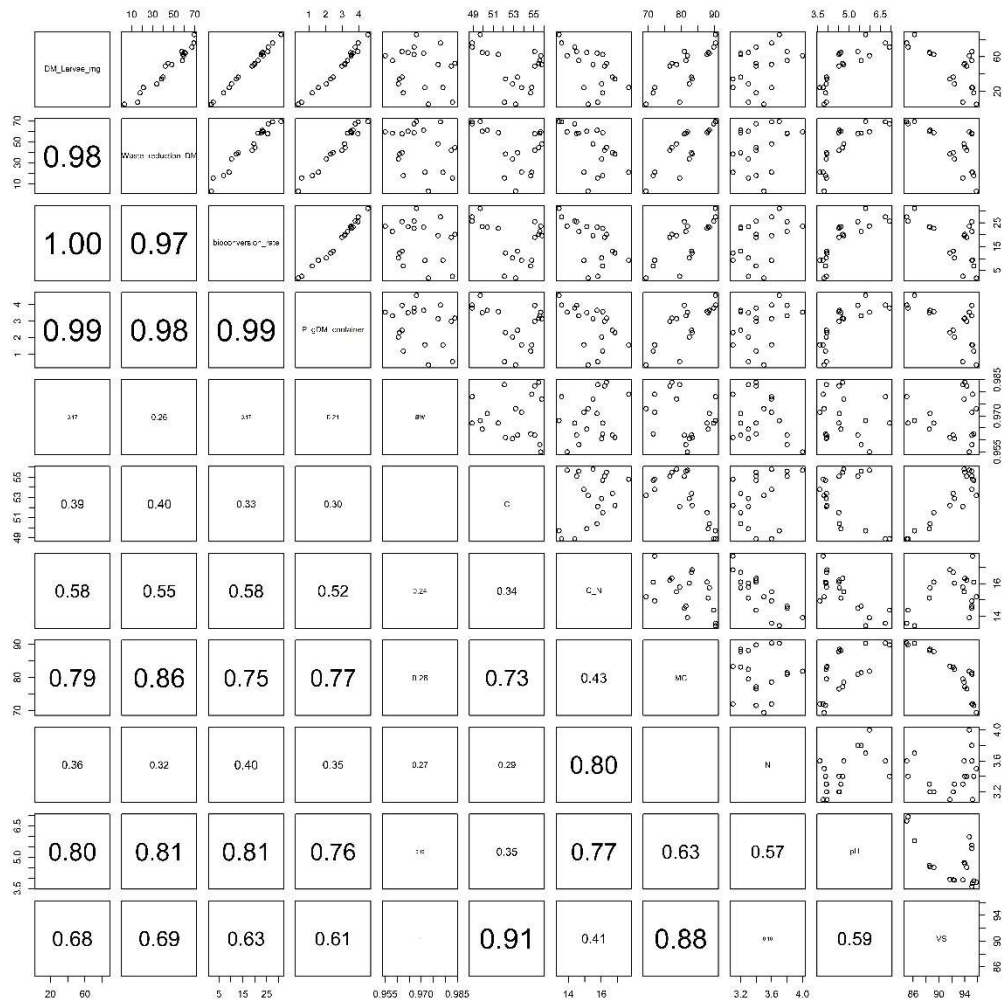


Identification of Bacteria in Two Food Waste Black Soldier Fly Larvae Rearing Residues

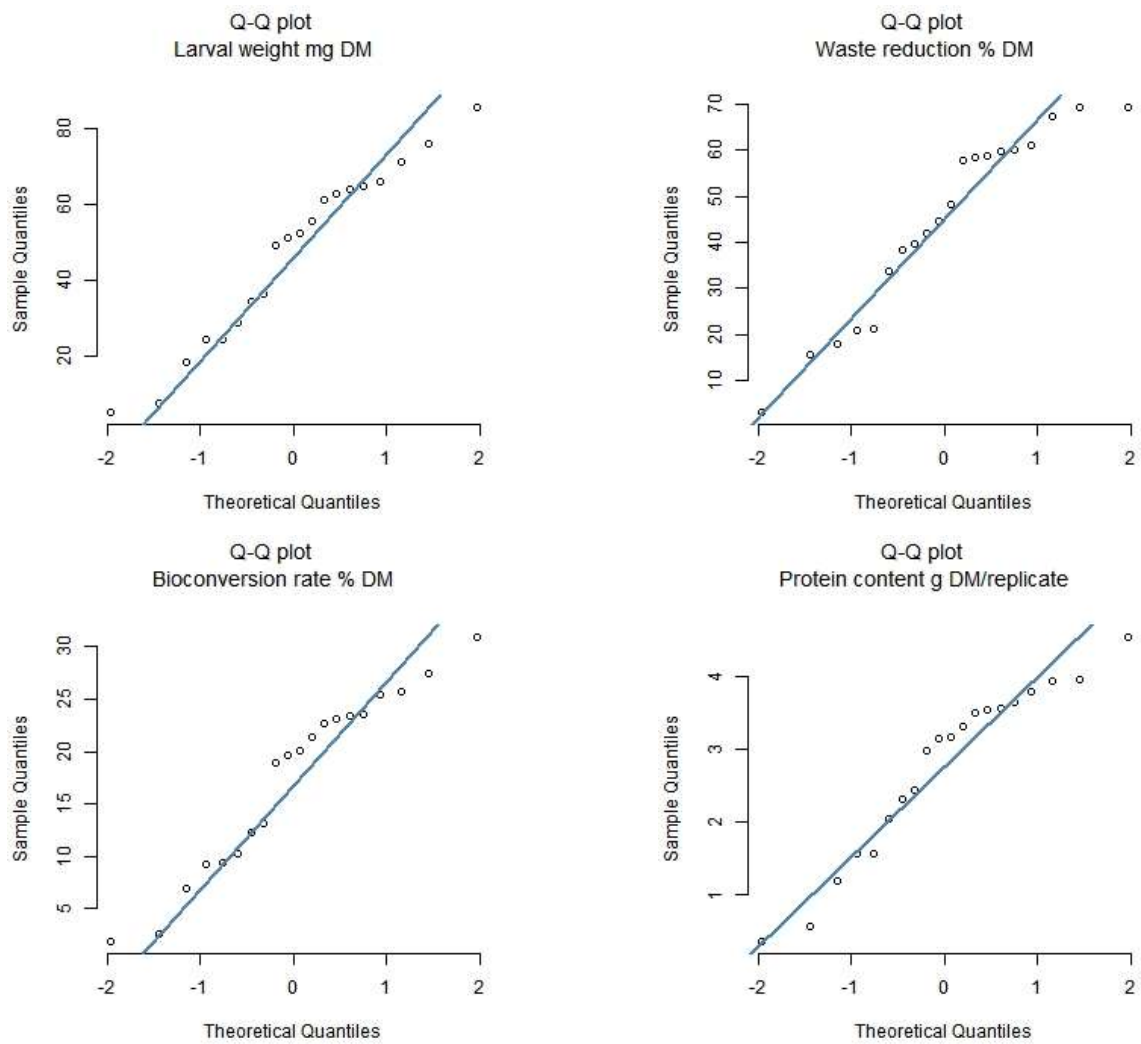
Supplementary Material

Supplementary Table 1: Pictures of the fresh and homogenized food waste substrates used for BSFL rearing.

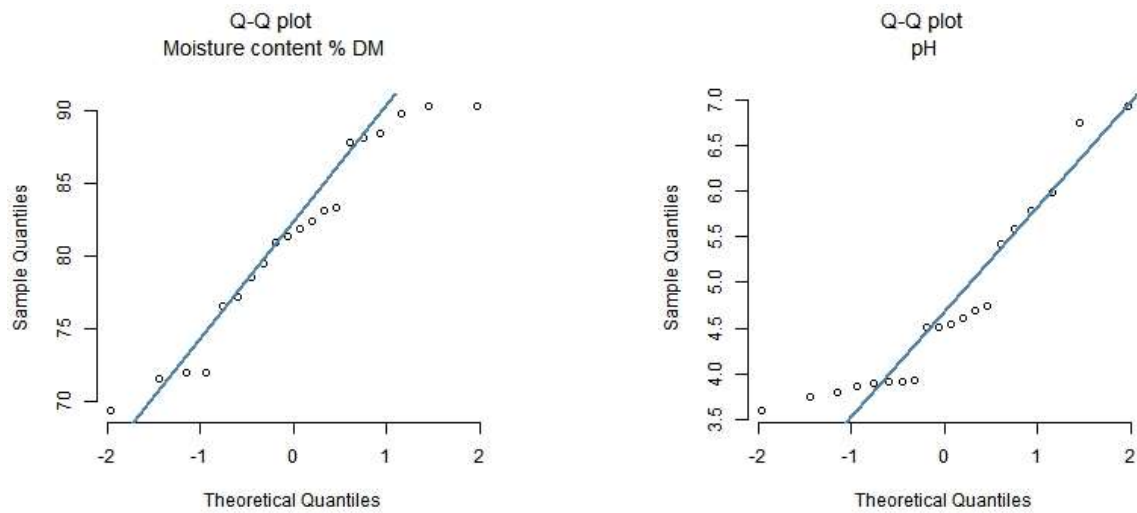
Substrate	Fresh	Homogenized
Can-teen and sterile can-teen waste		
House-hold waste		



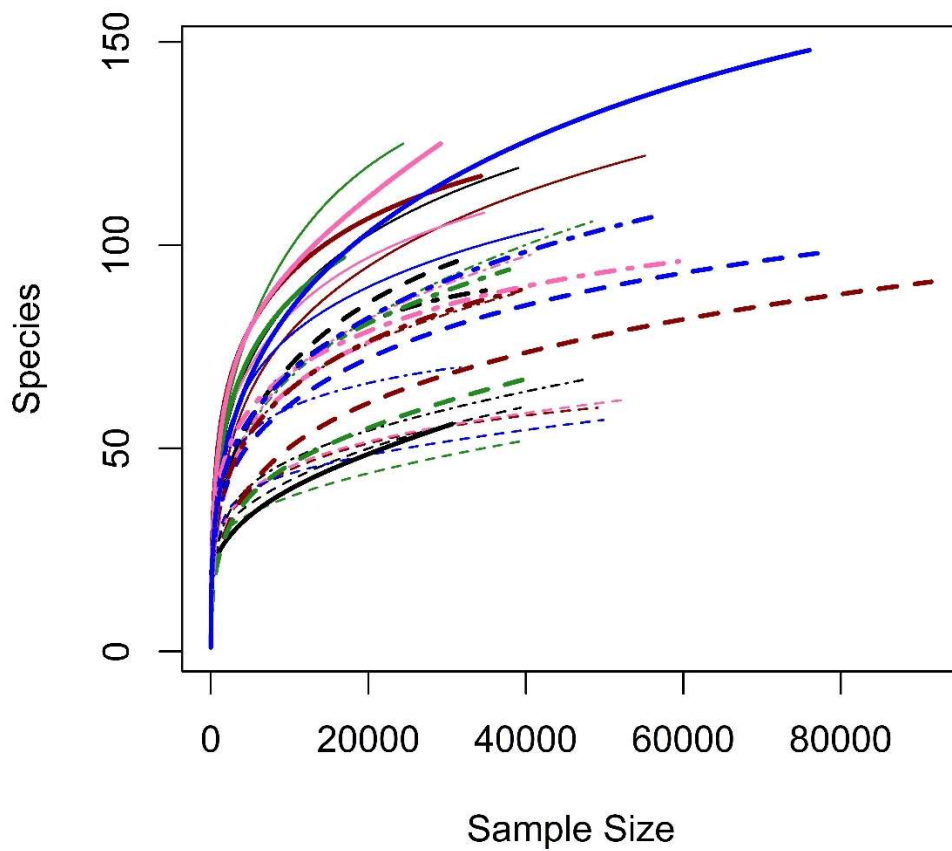
Supplementary Figure 1: Pearson correlation matrix to identify co-linearity between rearing performance metrics and physio-chemical residue composition parameters before Distance-based redundancy analysis (dbRDA). Correlation coefficients $-0.7 < r < 0.7$ indicate strong co-linearity.



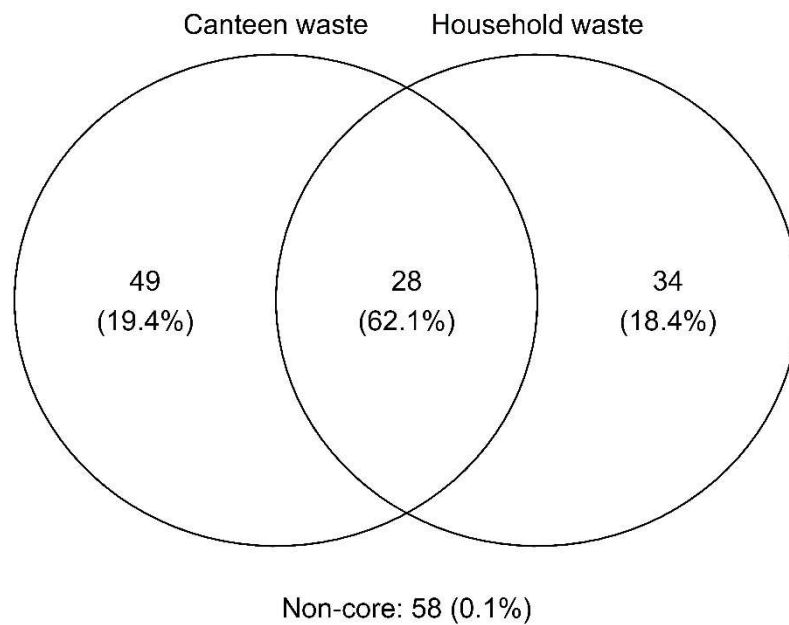
Supplementary Figure 2: Q-Q plots of performance indicators to assess normality. Larval weight (top, left), waste reduction (top, right), bioconversion rate (bottom, left) and protein content (bottom, right).



Supplementary Figure 3: Q-Q plots of physio-chemical residue composition parameters to assess normality. Moisture content (left) and pH (right) had a strong correlation with rearing performance indicators (see Pearson correlation matrix)



Supplementary Figure 4: Rarefaction curves of all substrate and residue samples. Colors and line types represent the different samples.



Supplementary Figure 5: Venn diagram showing shared ZOTUs between the canteen and household waste rearing substrates. Venn diagram was determined with the ampvis2 package (frequency cut-off >80% and abundance cut-off > 0.01%).

Supplementary Table 2: Carbon, water activity and temperature in the substrates and residues.

Substrate	Day	Carbon % DM	Water activity -	Temperature °C
<i>With BSFL</i>				
Canteen waste	0	55.9 [†]	0.98 [†]	n.a.
	3	53.4 (0.2)	0.97 (0.0)	28.1 (0.3)
	6	54.4 (0.6)	0.97 (0.0)	29.2 (0.4)
	9	55.5 (0.3)	0.98 (0.0)	29.8 (0.4)
	12	55.5 (0.3)	0.96 (0.0)	29.8 (0.4)
Sterile canteen waste	0	55.9 [†]	0.98 [†]	n.a.
	3	53.7 (0.9)	0.98 (0.0)	28.4 (0.1)
	6	54.0 (0.2)	0.96 (0.0)	28.9 (0.4)
	9	54.1 [†]	0.96 [†]	29.1 (0.1)
	12	54.5 [‡] (0.3)	0.96 [†]	29.1 (0.1)
Household waste	0	51.7 [†]	0.99 [†]	n.a.
	3	52.4 [‡] (0.3)	0.98 [‡] (0.0)	28.2 (0.2)
	6	52.8 (0.6)	0.96 (0.0)	29.4 (0.5)
	9	50.6 (0.8)	0.97 (0.0)	29.5 (0.2)
	12	49.2 (0.5)	0.97 (0.0)	29.9 (0.1)
<i>Without BSFL</i>				
Canteen waste	12	56.0 [‡] (0.3)	0.97 (0.0)	28.8 (0.0)
Sterile canteen waste	12	53.1 (0.4)	0.96 (0.0)	n.a.

In parenthesis: standard deviation for samples where $n \geq 3$, differences between analyses where $n = 2$
[†] $n=1$, [‡] $n=2$, n.a. = not analysed