Bulletin of Insectology Supplemental Material

Title: A mobile black soldier fly farm for on-site disposal of animal dairy manure

Authors: **Antonio FRANCO, Carmen SCIEUZO, Rosanna SALVIA, Ignazio M. MANCINI, Donatella CANIANI, Salvatore MASI, Patrizia FALABELLA**

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Table S1. Main indicators of location and variability, which show that the distributions - for each group - are substantially symmetrical.

	Mean			Median			Standard deviation		
	Standard diet	Mature manure	Fresh Manure	Standard diet	Mature manure	Fresh Manure	Standard diet	Mature manure	Fresh manure
Larval starting weight	0.1555	0.1534	0.1510	0.1597	0.1530	0.1492	0.0095	0.0115	0.0079
Dry matter substrate	29.143	30.66	22.847	28.490	30.580	21.880	1.445	0.357	2.551
Dry matter larvae	33.693	30.957	35.443	34.700	31.110	35.320	1.928	0.693	0.546
Dry matter frass	38.197	50.227	53.067	38.08	50.600	52.900	0.564	0.655	0.473
Development time	13.333	20.333	25.667	13.000	20.000	26.000	0.577	0.577	0.577
Larval biomass	2.830	1.837	0.953	2.870	1.850	0.980	0.173	0.121	0.162
Bioconversion yield	0.976	0.569	0.338	0.996	0.559	0.346	0.077	0.043	0.062
Frass biomass	2.063	3.350	2.893	2.060	3.350	2.880	0.085	0.050	0.081
Substrate reduction	70.524	52.143	58.667	70.571	52.143	58.857	1.215	0.714	1.155

Table S2. Bartlett test and the modified Levene test were performed to check for the homogeneity of the variance among the three analysed groups (standard diet, mature manure, fresh manure) for each experiment. The table shows the corresponding p-values, which indicate that the null hypothesis of homogeneity of the variance between groups can be supported with good empirical evidence. The conclusion does not depend on the chosen test. The last column reports the p-values of the Shapiro-Wilk test for the verification of the hypothesis of normality. This hypothesis can be supported for all groups, with weaker evidence for the dry matter frass group.

	Bartlett	Levene	Shapiro-Wilk
Larval starting weight	0.8965	0.901	0.307
Dry matter substrate	0.114	0.511	0.05
Dry matter larvae	0.2208	0.6497	0.0791
Dry matter frass	0.9175	0.9755	0.0096
Development time	1.000	1.000	0.1056
Larval biomass	0.8931	0.9081	0.3976
Bioconversion yield	0.7634	0.8067	0.3266
Frass biomass	0.7826	0.7886	0.1146
Substrate reduction	0.7826	0.7886	0.1146

Table S3. P-values of the one-way ANOVA test, and the p-values of Tukey's *post-hoc* test for paired comparisons between groups from which it follows that, for the eight experiments, the differences are always significant at 5% level, except for the comparison between the dry matter of standard diet and mature manure, between the dry matter of mature and fresh manure and the between dry matter of larvae fed on standard and fresh manure. P-values of the non-parametric Kruskal-Wallis test applied to verify that starting larval weight did not differ among larvae used for different treatment are also reported. For larval starting weight, instead, the results indicate that the initial conditions were the same across the treatment (standard, fresh, mature).

	One way ANOVA	Standard diet Mature manure	Standard diet Fresh manure	Mature manure Fresh manure	Kruskal-Wallis
Larval starting weight	0.8560	-	-	-	0.8371
Dry matter substrate	0.0030	0.554192	0.009534	0.0033	0.051
Dry matter larvae	0.0116	0.075496	0.263249	0.009872	0.039
Dry matter frass	< 0.0001	0.000001	0	0.002119	0.027
Development time	< 0.0001	0.000014	0.000001	0.00007	0.025
Larval biomass	< 0.0001	0.000527	0.000013	0.000999	0.027
Bioconversion yield	< 0.0001	0.000493	0.000039	0.009397	0.027
Frass biomass	< 0.0001	0.000002	0.000022	0.000663	0.027
Substrate reduction	< 0.0001	0.000002	0.000022	0.000663	0.027