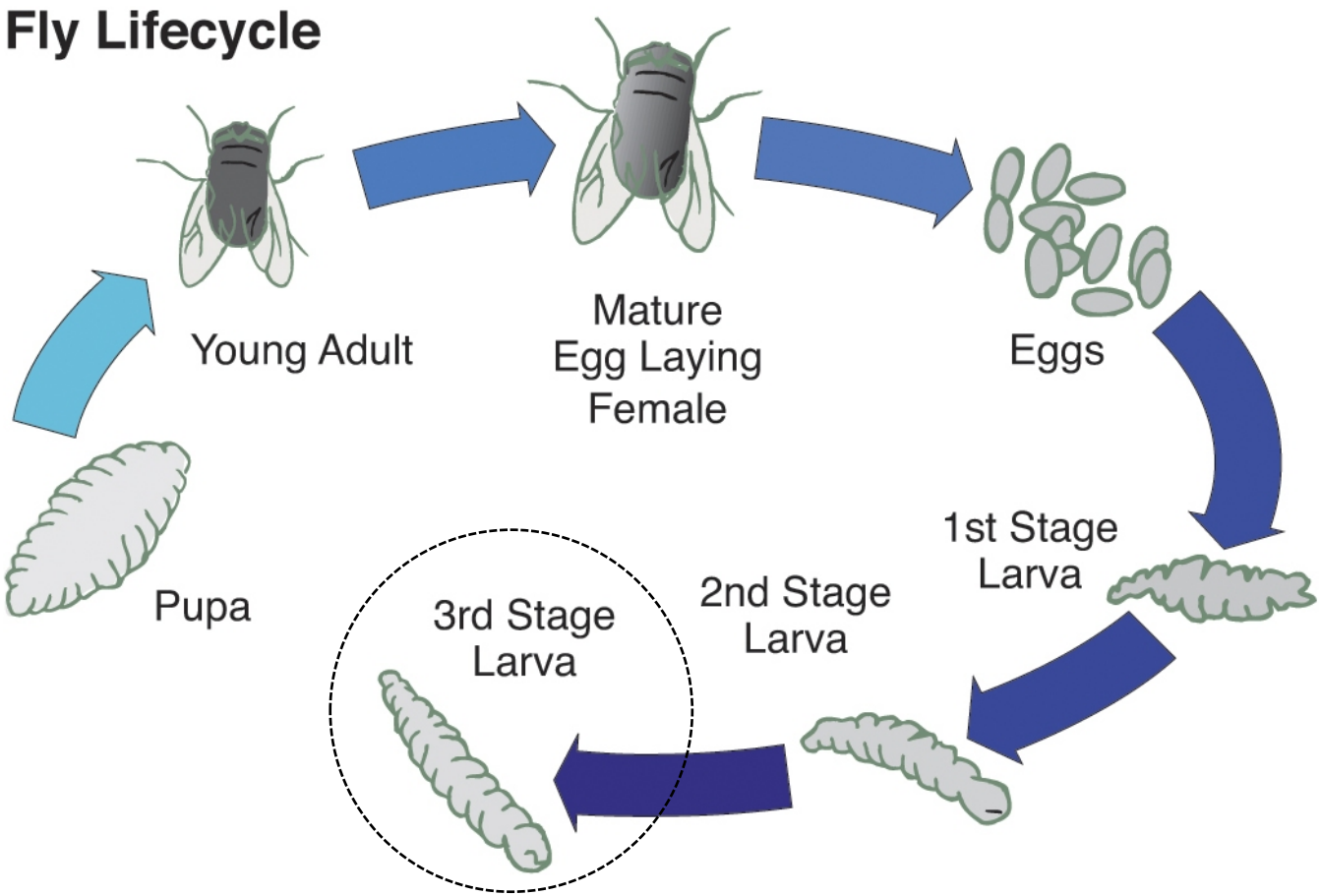

Figure 1: Life cycle of the Housefly (*Musca domestica*). LM for this study was produced from 3rd stage larvae (circled).

Table 1: Nutritional comparison of Housefly Larva Meal with common aquaculture feed ingredients.

	Larva Meal[a]	Soy Protein Concentrate[b]	Fishmeal[b]
Dry Matter (%)	91.5	94.3	93.7
Crude Protein (%)	56.39	67.4	67.8
Fat (%)	16.78	2.1	9.0
Digestible Energy (Mcal/lb)	1.66	2.23	2.27
Calcium (%)	0.68	0.4	5.4
Phosphorus (%)	1.08	0.8	1.5
[a]This study: analysis performed by Brookside Labs (New Bremen, OH), [b](Barrows et. al 2015)			

Table 2: Diet Design for this study

Ingredients	Control Diet	5% Larva Meal	30% Larva Meal
Fish meal	10	10	10
Larva meal	**0**	**5**	**30**
Soy protein concentrate	20.7	**15.8**	**0**
Corn gluten meal	20.7	20.7	**12.29**
Wheat gluten	5	5	5
Wheat flour	25.4	26.1	29.7
Fish oil	11	11	11
Soybean Oil	5.8	**4.9**	**0.5**
Mineral/Vitamin Mix	1.5	1.5	1.5
***Formulated using WinFeed 2.8 software**			

Table 3: Proximate Analysis of Experimental Diets

Diet	**Fat (%)**	**Crude Protein (%)**	**Calcium (%)**	**Phosphorous (%)**	**Potassium (%)**	**Magnesium (%)**	**Sodium (%)**	**Iron (ppm)**	**Manganese (ppm)**	**Copper (ppm)**	**Zinc (ppm)**
Control	21.03 ± 0.77	41.2 ± 0.60	0.589 ± 0.021	0.705 ± 0.025	0.753 ± 0.023	0.145 ± 0.0035	0.101 ± 0.0038	169.7 ± 8.33	91.6 ± 2.45	61.9 ± 0.92	96.1 ± 8.60
5% LM	19.5 ± 0.70	42.1 ± 1.20	0.734 ± 0.071	0.796 ± 0.030	0.745 ± 0.025	0.139 ± 0.0031	0.136 ± 0.0050	222.0 ± 8.66	100.8 ± 6.37	63.1 ± 1.44	98.0 ± 1.76
30% LM	19.4 ± 0.15	41.1 ± 0.86	0.743 ± 0.054	0.871 ± 0.020	0.776 ± 0.015	0.136 ± 0.0026	0.278 ± 0.0036	515.7 ± 20.55	166.3 ± 4.73	69.6 ± 0.67	147.7 ± 3.79

Figure 2: Schematic depiction of treatment groups

	Week							
	1	2	3	4	5	6	7	8
Group 1	**Standard diet**							
Group 2	**5% LM diet**							
Group 3	**30% LM diet**							
Group 4	**Standard diet**						**5% LM diet**	
Group 5	**Standard diet**						**30% LM diet**	
n	**6 aquaria per group, 14 fish per aquaria, 84 fish per group**							

Figure 3: Survival curve for the growth trial phase of the experiment. Higher mortality was observed in the 5% LM diet group, particularly during the first two weeks of feeding.

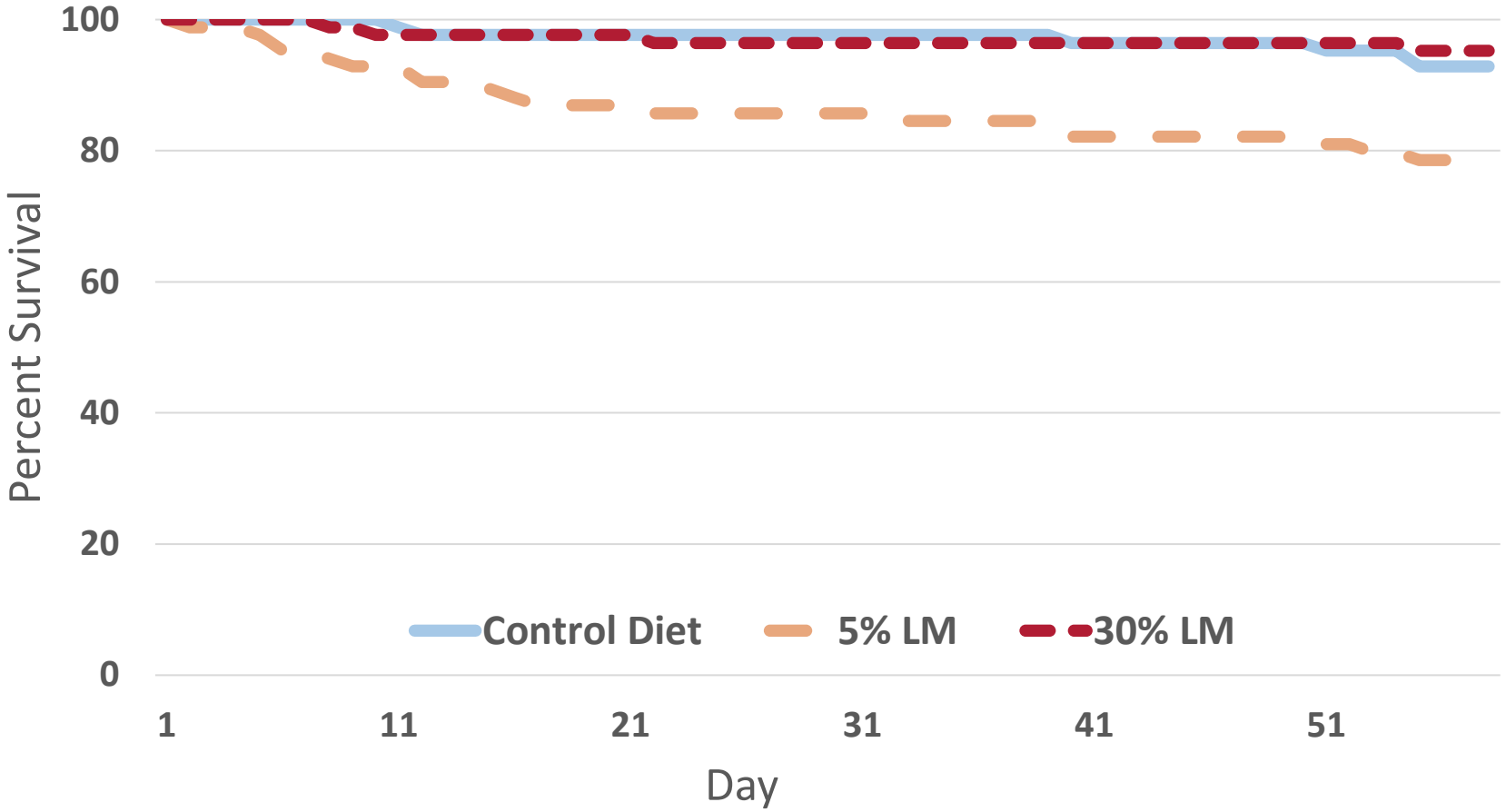

Figure 4: Average growth over the course of the feeding trial. The 30% LM diet performed best, followed by the 5% diet. However, due to high mortality in the 5% diet group, care should be taken in interpreting growth results, as these represent only surviving fish.

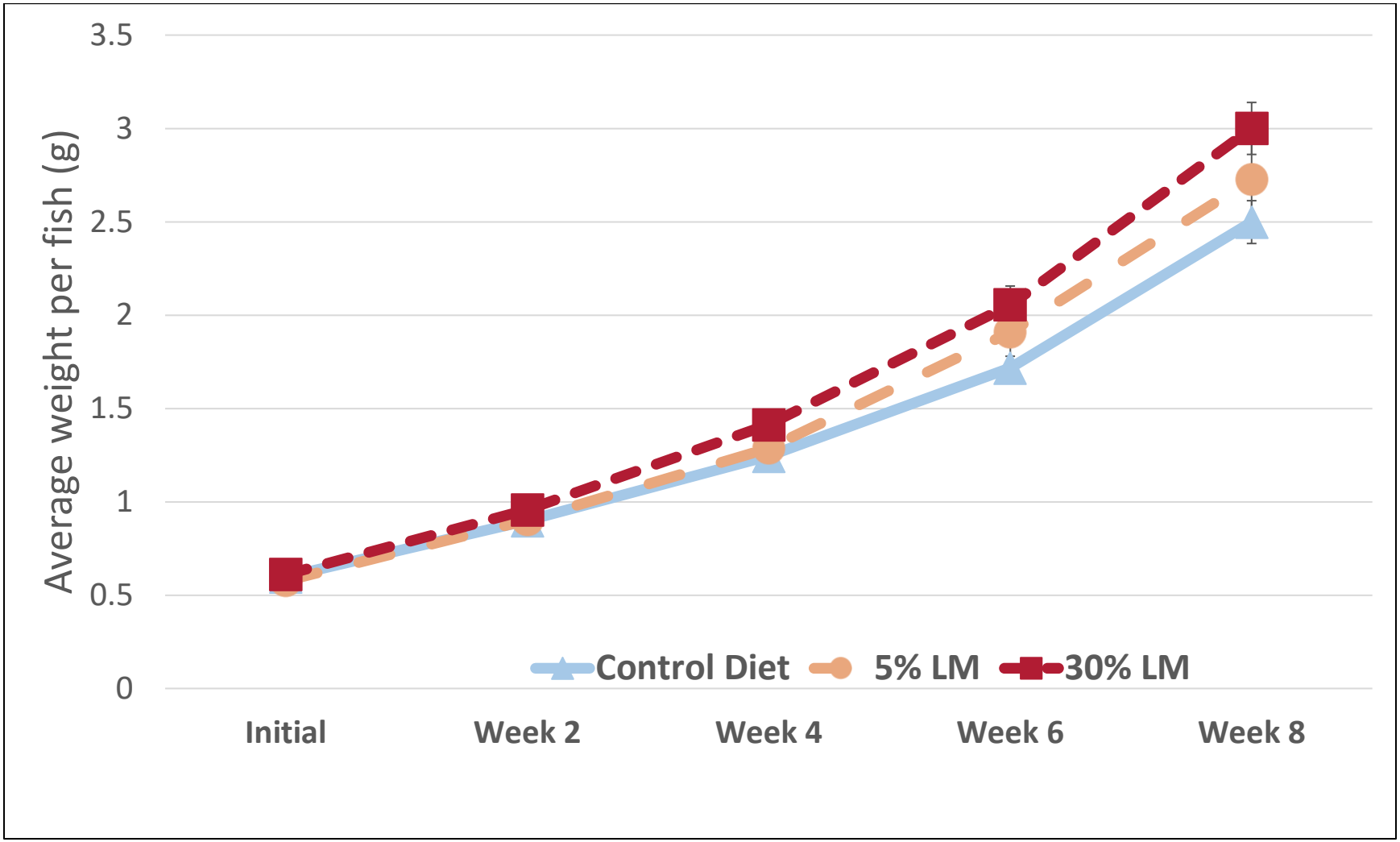

Table 4: Feed Conversion ratio over the course of the feeding trial. High mortality in the 5% LM diet group reduced FCR.

Diet Group	Feed Intake per tank (g)	Total Weight Gain per tank (g)	Feed Conversion Ratio (FCR)
Control	36.12	23.28	**1.55**
5% LM	36.12	21.32	**1.69**
30% LM	36.12	31.32	**1.15**

Figure 5: Serum lysozyme activity. Activity was elevated in fish fed LM diets for 2 weeks.

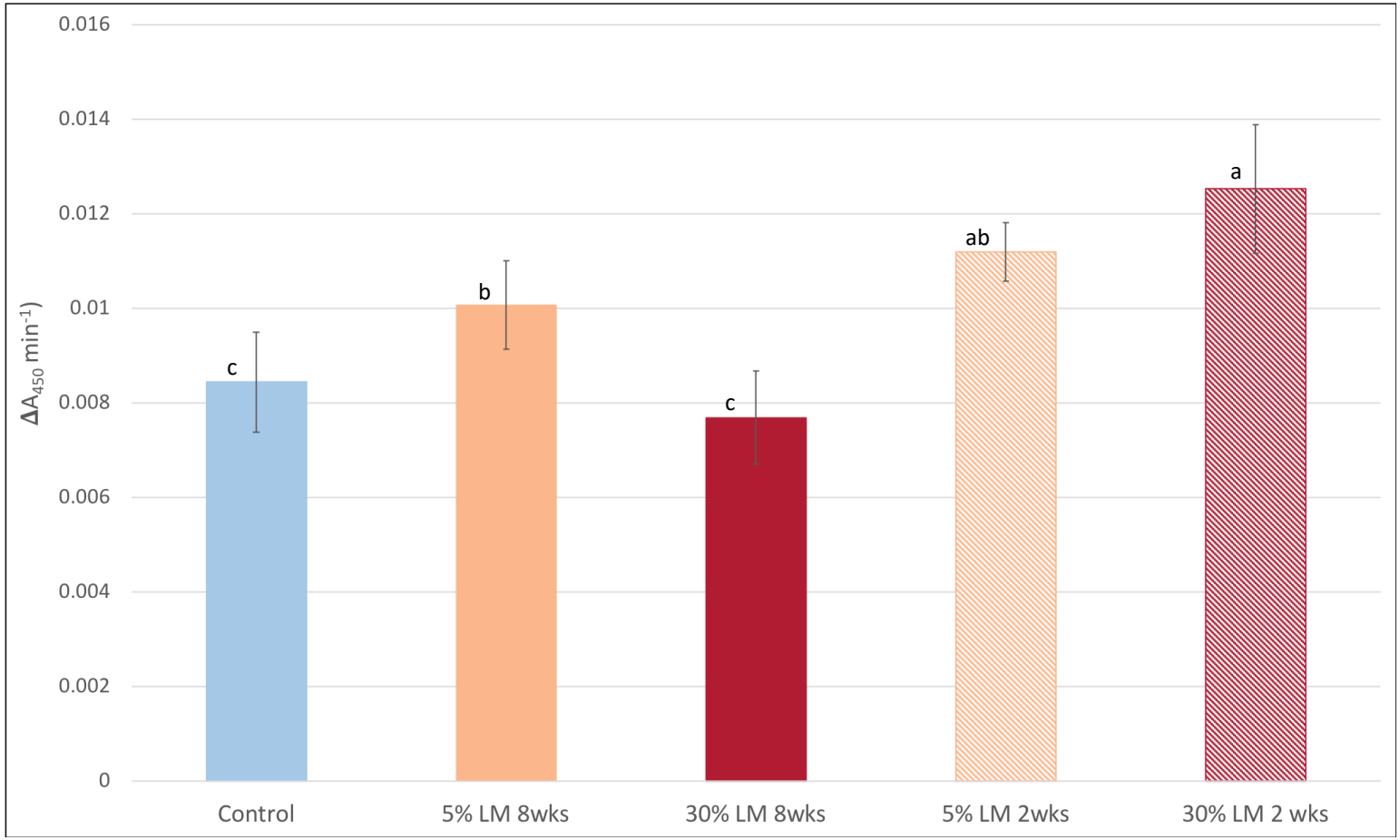

Figure 6: Survival curve for the infection challenge. Low mortality across all treatments was observed, making it impossible to draw conclusions about the presence of absence of a protective effect of LM.