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Table 1: Inhibitory effect of potential probiotic strains measured by mm. *Candida famata* (C), *Leuconostoc mesenteroides* (L27), *Lactobacillus paraplantarum* (L20), *Lactobacillus plantarum* (L3)

Strains	L3	L20	L27	C
<i>Vibrio alginolyticus</i> ATCC17749	13.5±0.70	13±1.41	14±00	12.5±0.5
<i>Salmonella typhimurium</i> ATCC1408	12.5±0.70	13±00	13±1.41	12±00
<i>Escherchia coli</i> ATCC35218	14±00	11.5±0.70	11.5±0.70	13.5±0.98
<i>Pseudomonas aeruginosa</i> ATCC 27853	15.5±1.41	17±00	16.5±0.70	15±0.98

Table 2: Biochemical identification of the strains studied and semi quantitative study of adhesion.

Strains	Adhesion to polystyrene DO (595±SD)
<i>Lactobacillus plantarum</i>	0.234±0.19
<i>Lactobacillus paraplantarum</i>	0.189±0.22
<i>Leuconostoc mesenteroides</i>	0.216±0.13
<i>Candida famata</i>	0.603±0.15

Table 3: Number of culturable bacteria by fish and water (day12) growing and MRS and TCBS media

Treatment	In the water			Larvae		
	MRS	SABAURAUD	TCBS	MRS	SABAURAUD	TCBS
L+V	N.D	N.D	1.10 ⁶	N.D	N.D	310 ²
L+V+L3	5.10 ¹ ±	N.D	2.10 ⁵	5.10 ²	N.D	2.10 ²
L+V+L20	1.10 ¹ ±	N.D	3.10 ⁵	1.10 ²	N.D	2.10 ²
L+V+L27	2.10 ¹ ±	N.D	4.10 ⁶	2.10 ²	N.D	1.10 ²
L+V+C	N.D	3.10 ¹	6.10 ⁶	N.D	5.10 ²	4.10 ²
L+V+K	4.10 ¹ ±	N.D	5.10 ⁵	4.10 ²	N.D	1.10 ²
L+L3	5.10 ¹ ±	N.D	N.D	5.10 ³	N.D	N.D
L+L20	5.10 ¹ ±	N.D	N.D	5.10 ³	N.D	N.D
L+L27	3.10 ¹ ±	N.D	N.D	3.10 ³	N.D	N.D
L+K	4.10 ¹ ±	N.D	N.D	4.10 ³	N.D	N.D
L+C	N.D	6.10 ²	N.D	N.D	6.10 ³	N.D

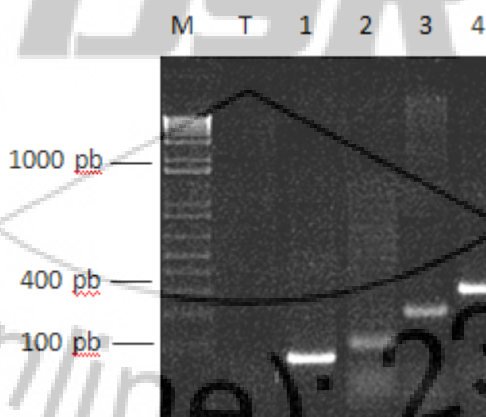


Figure 1. Overview of the patterns obtained after PCR agarose gel electrophoresis (1.5%), Lane 1 *Candida famata* (C), Lane 2 *Leuconostoc mesenteroides* (L27), Lane 3 *Lactobacillus paraplantarum* (L20), Lane 4 *Lactobacillus plantarum* (L3) , M : molecular size marker (100 bp to 1500 bp). T: negative control.

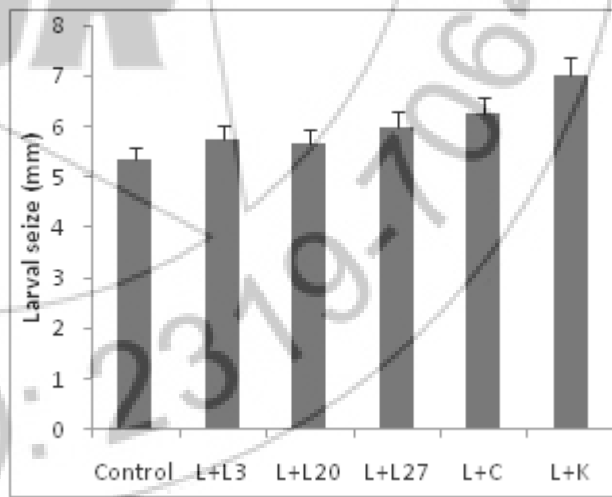
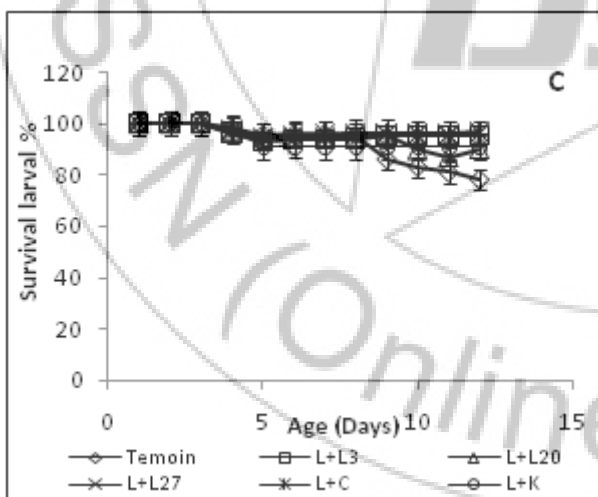
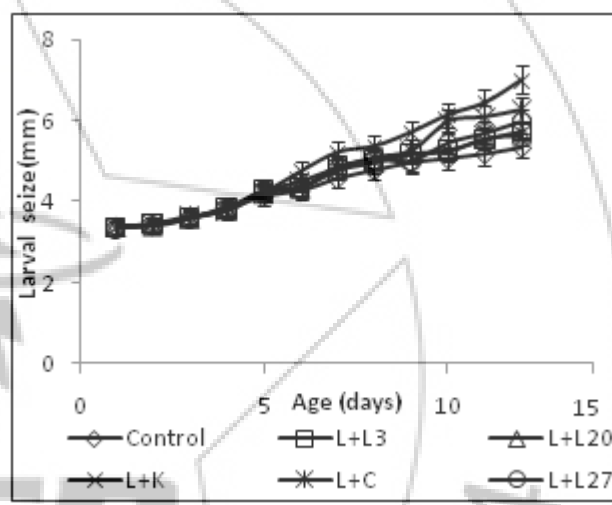
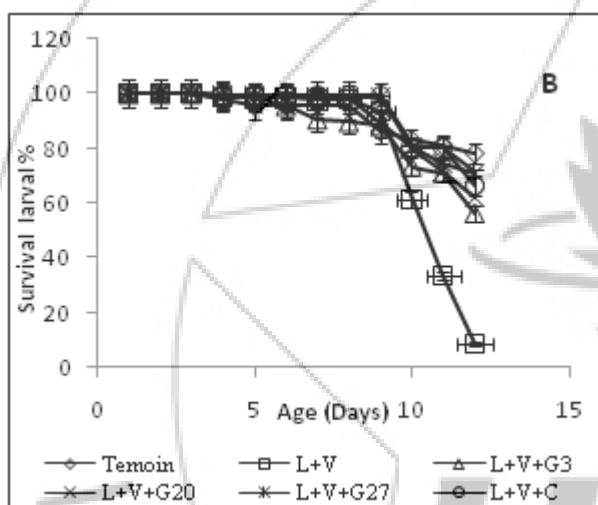
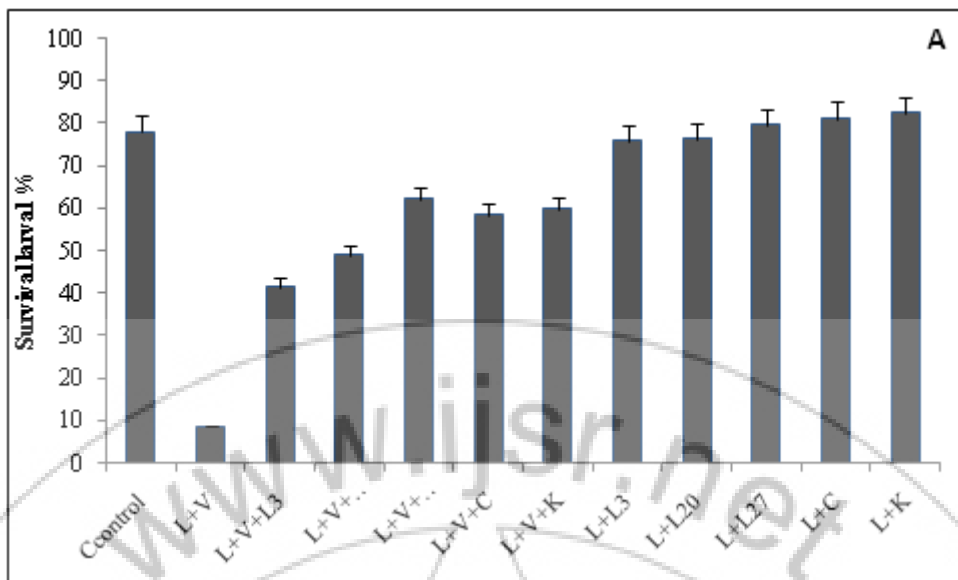


Figure 2: A: Survival of larval *Dicentrarchus labrax* at the end of treatment (Day 12), figure 2.B and fig.2.C: percentage of daily survival of larvae in the presence and absence of pathogenic L: larva *Dicentrarchus labrax*; V: *Vibrio alginolyticus*; L3: *Lactobacillus plantarum*; L20: *Lactobacillus paraplantarum*; L27: *Leuconostoc mesenteroides*; C: *Candida famta* and K : L3 + L20 + L27.

Figure 3: Linear growth of *Dicentrarchus labrax* larvae (day 1 to day 12); B: Linear growth of larval *Dicentrarchus labrax* at the end of treatment (Day 12); L: larva *Dicentrarchus labrax*; V: *Vibrio alginolyticus*; L3: *Lactobacillus plantarum*; L20: *Lactobacillus paraplantarum*; L27: *Leuconostoc mesenteroides*; C: *Candida famta* and K : L3 + L20 + L27. Mean \pm error deviation (n = 30)

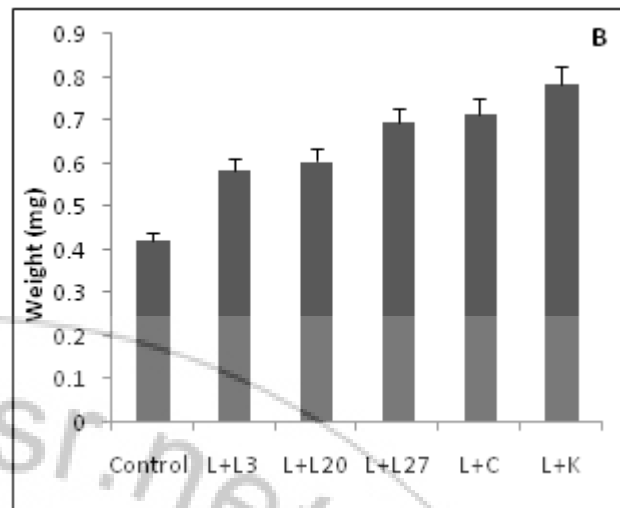
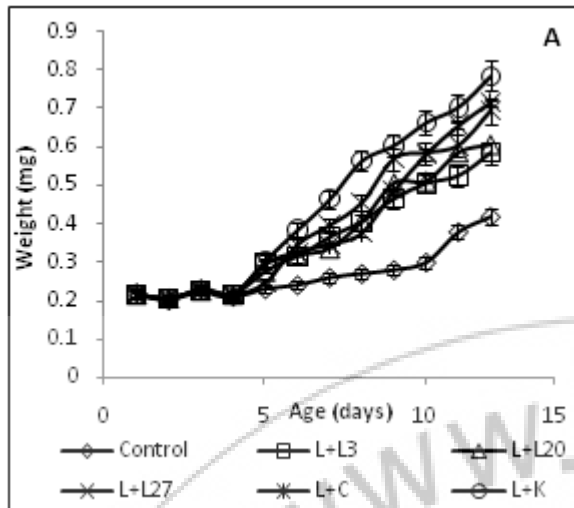


Figure 4 (A): Daily weight growth of *Dicentrarchus labrax* larvae (day 1 to day 12);

Figure 4 (B): Growth of larval weight of *Dicentrarchus labrax* at the end of treatment (Day 12); L: larval; V: *Vibrio alginolyticus*; L3: *Lactobacillus plantarum*; L20: *Lactobacillus paraplantarum*; L27: *Leuconostoc mesenteroides*; C: *Candida famta* and K: L3 + L20 + L27. Mean \pm error deviation (n = 30)

