

List of Figures

Figure No	Title	Page No
2.1	Acid tolerance test at different time intervals of (a) <i>L. plantarum</i> at pH 1.5, (b) <i>L. rhamnosus</i> at pH 1.5, and (c) <i>L. acidophilus</i> at pH 3.0.	49
2.2	Bile tolerance (0.3% Oxgall) of (a) <i>L. plantarum</i> (b) <i>L. rhamnosus</i> and (c) <i>L. acidophilus</i>	51
2.3	Changes in total soluble sugars and titrable acidity of probiotic juices: (a) litchi, (b) pineapple, (c) orange and (d) guava during storage at refrigerated condition ($4 \pm 1^\circ\text{C}$)	57
2.4	Probiotic juice with <i>Lactobacillus plantarum</i> at 0 day and after 6 weeks at refrigerated condition ($4 \pm 1^\circ\text{C}$)	58
2.5	Sensory score for probiotic fruit juices juice inoculated with <i>L. plantarum</i> during 6 weeks of storage	61
2.6	Sensory score for probiotic fruit juices juice inoculated with <i>L. rhamnosus</i> during 6 weeks of storage	62
2.7	Sensory score for probiotic fruit juices juice inoculated with <i>L. acidophilus</i> during 6 weeks of storage	63
3.1	Changes in ferric reducing antioxidant property (FRAP) and DPPH radical scavenging activity of the probiotic litchi juice during storage at refrigerated condition ($4 \pm 1^\circ\text{C}$)	76
3.2	Changes in ferric reducing antioxidant property (FRAP) and DPPH radical scavenging activity of the probiotic pineapple juice during storage at refrigerated condition ($4 \pm 1^\circ\text{C}$)	77
3.3	RP-HPLC chromatogram of the phenolic compounds in probiotic litchi juice with <i>L. plantarum</i> (Lp) and <i>L. rhamnosus</i> (Lr)	81
3.4	RP-HPLC chromatogram of the phenolic compounds in probiotic pineapple juice with <i>L. plantarum</i> (Lp) and <i>L. rhamnosus</i> (Lr)	82

4.1	Effect of response variables on (a) recovery and (b) survival in spray dried <i>Lactobacillus plantarum</i> MTCC2621 with litchi juice	97
4.2	Effect of response variables on (a) recovery (%) and (b) survival (%) in spray dried <i>Lactobacillus plantarum</i> MTCC2621 with pineapple juice	101
4.3	Effect of response variables on (a) recovery (%) and (b) survival (%) in spray fried <i>Lactobacillus plantarum</i> MTCC2621 with orange juice	105
5.1	Particle size distribution of the spray-dried <i>L. plantarum</i> -litchi-juice powders	124
5.2	DSC thermograph of the spray-dried <i>L. plantarum</i> -litchi-juice powders with carrier materials	125
5.3	Scanning electron microscopy (SEM) photographs of the spray-dried <i>L. plantarum</i> -litchi-juice powders with different carrier materials	126
5.4	MTT proliferation assay on HEK 293 cell lines of the of the spray-dried <i>L. plantarum</i> -litchi-juice powders	129
5.5	Plates of encapsulated <i>Lactobacillus plantarum</i> MTCC2621 after exposure to simulated digestive system. SGJ: simulated gastric juice; SIJ: simulated intestinal juice	129
6.1	Plates of encapsulated <i>Lactobacillus plantarum</i> MTCC2621 after exposure to simulated digestive system. SGJ: simulated gastric juice; SIJ: simulated intestinal juice	139
