Supplementary Material

Table S1. Sensory analysis of control and functional breast fillets from light, medium and heavy broilers at 24 h post-mortem and after freeze storage for 30 days (raw state). For every market class, data are reported in terms of mean ± standard deviation of *n*=28 tastings of breast meat from broilers receiving standard (*n*=14) and experimental (*n*=14) feeding, both at 24h post-mortem (*n*=14) and following freeze storage (*n*=14). For the dietary treatment, data are expressed as mean ± standard deviation of *n*=42 tastings of meat from light (*n*=14), medium (*n*=14) and heavy (*n*=14) broilers, both in fresh status (*n*=21) and after freeze storage (*n*=21). For fresh or freeze stored samples, data are expressed as mean ± standard deviation of *n*=42 tastings of meat from light (*n*=14), medium (*n*=14) and heavy (*n*=14) broilers receiving both standard (*n*=21) and functional (*n*=21) feed.

Attribute	Market Class			Dietary Treatment		Storage		Source of Variation			
	Light Broiler	Medium Broiler	Heavy Broiler	Standard	Enriched	No Storage (Fresh Meat)	Freeze Storage (30d)	Market Class	Diet	Storage	Interaction
Raw products											
Appearance	4.83±1.10	5.26±0.62	4.93±0.92	4.87±1.01	4.86±1.03	5.84±0.28^{a}	3.89±0.17^{b}	NS	NS	*	NS
Tackiness/ slickness	4.99±0.44	5.36±0.59	5.41±0.53	5.73±0.60	5.22±0.55	5.71±0.37^{a}	4.74±0.21^{b}	NS	NS	*	NS
Odour	5.57±0.85	6.01±0.25	5.58±0.54	5.59±0.74	5.46±0.63	6.14±0.32^{a}	4.91±0.20^{b}	NS	NS	*	* (M×D)
Cooked products											
Appearance	6.49±0.94^{a}	6.83±0.45^{a}	7.30±0.23^{b}	6.69±0.67	6.87±0.64	7.31±0.16^{a}	6.24±0.53^{b}	*	*	*	* (M×D)
Flavour	6.40±0.23^{a}	6.42±0.19	6.95±0.44	6.52±0.22	6.46±0.22	6.52±0.17	6.45±0.26	NS	NS	NS	* (M×D)
Taste	6.53±0.19	6.56±0.20	7.00±0.47	6.68±0.32	6.71±0.39	6.83±0.36	6.54±0.19	NS	NS	NS	* (M×D)
Juiciness	5.68±0.25^{a}	6.30±0.61^{a}	7.14±0.31^{b}	6.15±0.68	6.59±0.71	6.71±0.30^{a}	6.03±0.44^{b}	*	*	*	NS
Tenderness	5.49±0.36^{a}	5.85±0.43^{b}	6.93±0.46^{c}	5.88±0.72	6.30±0.71	6.33±0.78	5.80±0.57	*	NS	NS	* (M×D)
Chewing rest	5.57±0.69^{a}	6.35±0.53^{b}	6.43±0.23^{b,c}	5.96±0.58^{a}	6.32±0.69^{b}	6.44±0.38^{a}	5.81±0.73^{b}	*	*	*	* (M×D)

*Statistically significant ($p<0.05$) and NS=non-significant by a multiple linear model. When significant relationships with fixed factor(s) and/or their interaction were found: different letters (a,b,c) in the same row indicate significantly different values among breast muscles from different market classes and/or diets ($p < 0.05$, by One-way ANOVA followed by post hoc Tukey's HSD test or by t-test).