

Table (1): Levels of DO, salinity, pH and total ammonia for the experimental fry (35-70) days.

Sampling time	G 1				G 2				G 3				G 4			
	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm
35 days	5.1	2.2	7.4	0.50	5.0	2.2	7.6	0.24	4.0	2.3	7.9	0.60	4.7	2.3	7.8	0.32
55 days	3.2	2.3	7.6	0.54	4.1	2.4	7.8	0.38	2.8	2.4	8.2	0.74	3.1	2.4	8	0.40
70 days	1.7	2.4	8.1	1.10	2.8	2.4	8.6	0.40	1.8	2.6	8.6	1.8	2.4	2.5	8.3	0.52

Table (2): Levels of DO, salinity, pH and total ammonia for the experimental fingerlings (110-160) days.

Sampling time	G 1				G 2				G 3				G 4			
	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm
110 days	5.8	2.6	7.5	0.58	5.4	2.5	7.4	0.50	5.1	2.7	7.6	0.60	5.3	2.5	7.4	0.62
130 days	5.2	3.2	7.7	0.75	5.1	3.1	7.6	0.72	5.3	3.1	7.9	0.82	5.4	2.9	7.8	0.83
140 days	4.5	3.8	8	1.06	4.3	3.9	8.1	1.02	4.1	3.9	8.5	1.16	4.7	3.1	8.2	1.05
150 days	3.9	4.2	8.1	1.40	3.1	4.0	8.4	1.28	3.4	4	8.6	1.44	3.8	3.9	8.4	1.20
160 days	2.8	4.3	8.5	2.01	2.6	4.2	8.6	1.36	2.1	4.5	8.9	2.6	3.4	4.1	8.8	1.39

Table (3): Levels of dissolved oxygen, salinity, pH and total ammonia for the experimental adult fish of 160-185 days.

Sampling time	G 1				G 2				G 3				G 4			
	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm	Do mg/l	Sal. ‰	pH	Amm. ppm
160 days	5.7	3.4	7.5	1.00	5.8	3.3	7.3	0.24	5.9	3.5	7.5	0.40	6.1	3.2	7.4	0.44
170 days	5.3	3.9	7.7	1.34	5.94	3.7	7.6	0.80	5.8	3.9	7.7	0.80	5.8	4.1	7.9	0.81
185 days	4.1	4.2	8.7	1.64	5.4	3.9	7.7	1.02	5.1	4.3	7.8	0.94	4.1	4.3	8.3	1.06

DO : Dissolved oxygen

Sal : water salinity

PH : water pH

Amm: ammonia concentration of aquarium.

Table (4): statistical analysis of some heavy metal residues in fry fed commercial ration (45-65) days.

Age	Cd ppm		Ni ppm		Pb ppm		Mn ppm		Cu ppm		Fe ppm	
	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1
45 days	14	20	12	20	28	82	46	162	36	48	2410	2972
55 days	18	26	60	4	36	42	70	120	28	30	176	254
65 days	10	18	12	22	14	38	14	16	32	46	80	174
Mean	14	21.33	28	15.33	26	54	43.33	99.33	32	41.33	888.6	1133.33
X2 (Chi square value)	0.24		46.84		9.85		14.23		0.74		19.09	
Significance	ns		**		**		**		ns		*	

Ni Nickel

Cd Cadmium

Mn Manganese

Pb Lead

Cu Copper

Fe Iron

Table (5): statistical analysis of some heavy metal residues in fry fed poultry sabla (45-65) days.

Age	Cd ppm		Ni ppm		Pb ppm		Mn ppm		Cu ppm		Fe ppm	
	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3
45 days	14	30	0.001	23.34	70	60	28	70	28	33.34	292	1053.34
55 days	20	8	14	12	12	14	24	170	32	32	1488	4484
65 days	8	18	34	14	32	6	30	72	24	28	110	82
Mean	14	18.67	16	16.45	38	26.67	27.33	104	28	31.11	630	1873.11
X2 (Chi square value)	28.67		47.75		75.6		32.89		40.01		582.44	
Significance	**		**		**		**		**		**	

Ni Nickel

Cd Cadmium

Mn Manganese

Pb Lead

Cu Copper

Fe Iron

ns nonsignificant.

* significant

** highly significant.

Table (6): Statistical analysis of some heavy metal residues in fish fed commercial ration (130-160) days.

Age	Cd ppm		Ni ppm		Pb ppm		Mn ppm		Cu ppm		Fe ppm	
	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1	Treated G2	Non treated G1
130 days	0.2	0.2	0.9	0.1	1.2	1.6	2.8	36	0.1	2	23.7	35.8
140 days	0.3	0.2	1.4	0.1	1.2	1	1.1	3.1	0.2	0.6	1.7	2.3
160 days	2	0.4	0.001	1.3	0.5	1.6	1.2	1.9	0.4	0.3	8.6	10.1
Mean	0.83	0.27	0.77	0.5	0.97	1.4	1.7	13.67	0.23	0.97	11.33	16.07
X2 (Chi square value)	3.19		3.43		3.47		36.63		2.4		35.49	
Significance	ns		ns		ns		**		ns		**	

Ni Nickel

Cd Cadmium

Mn Manganese

Pb Lead

Cu Copper

Fe Iron

Table (7): Statistical analysis of some heavy metal residues in fingerling fed poultry sabla of 130-160 days.

Age	Cd ppm		Ni ppm		Pb ppm		Mn ppm		Cu ppm		Fe ppm	
	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3	Treated G4	Non treated G3
130 days	0.1	0.2	0.7	0.2	1.2	0.9	5.2	3.5	0.8	0.3	10.889	13.5
140 days	0.3	0.1	0.9	0.001	1.3	1.3	8	1.2	0.7	0.3	10.1	2.3
160 days	0.4	0.3	1.1	1.4	1.8	1.2	9.8	4.2	0.9	0.4	0.7	1.8
Mean	0.27	0.2	0.9	0.53	1.43	1.13	7.67	2.97	0.8	0.33	7.23	5.87
X2 (Chi square value)	0.57		2.32		2.87		17.45		1.7		22.02	
Significance	ns		ns		ns		**		ns		**	

Ni Nickel Pb Lead

Cd Cadmium Cu Copper

Mn Manganese Fe

Iron

Ns

non-significant

**highly

significant

