Table (1): Effect of diclazuril (1 or 2 ppm), flavomycin (75g/ton) and their combinations on skin hypersensitivity (increase in the thickness of the wattle by mm) in chicken.

Group / Days after injection	Treatment					Control	
	Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
1st day	0.19 ± 0.03 [a]	0.10 ± 0.02 [b]	0.18 ± 0.01 [a]	0.09 ± 0.02 [b]	0.22 ± 0.03 [a]	0.10 ± 0.01 [b]	0.21 ± 0.03 [a]
2nd day	0.13 ± 0.03 [a]	0.03 ± 0.02 [b]	0.12 ± 0.03 [a]	0.04 ± 0.01 [b]	0.13 ± 0.02 [a]	0.03 ± 0.01 [b]	0.13 ± 0.03 [a]
3rd day	0.01 ± 0.00 [a]	0.01 ± 0.00 [a]	0.02 ± 0.01 [a]	0.00 ± 0.00 [a]	0.03 ± 0.01 [a]	0.00 ± 0.00 [a]	0.02 ± 0.01 [a]
4th day	0.00 ± 0.00 [a]	0.00 ± 0.00 [a]	0.00 ± 0.00 [a]	0.00 ± 0.00 [a]	0.00 ± 0.00 [a]	0.00 ± 0.00 [a]	0.00 ± 0.00 [a]

Values are mean ± S.D.(n = 5). Data were compared by ANOVA, Values superscripted by the same letter are not significantly different, p>0.05

Table (2): Effect of diclazuril (1 or 2 ppm), flavomycin (75g/ton) and their combinations on the total leucocytic count (x 10 3) in chicken.

Group / ge	Treatment					Control	
	Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve untreated unvaccin	+ve untreated vaccinated
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	38.5 ± 2.6 [a]	27.9 ± 2.2 [b]	37.7 ± 4.1 [a]	29.3 ±1.3 [b]	39.8 ± 2.5 [a]	28.8 ± 3.4 [b]	41.7 ± 1.2 [a]
28 day	39.0 ± 2.7 [a]	28.7 ± 1.5 [b]	38.0 ± 3.3 [a]	29.8 ± 1.8 [b]	38.5 ± 1.9 [a]	29.5 ± 1.9 [b]	41.0 ± 1.3 [a]
35 day	39.3 ± 4.7 [a]	29.3 ± 2.3 [b]	39.0 ± 4.2 [a]	28.8 ± 1.8 [b]	40.7 ± 1.6 [a]	28.3 ± 1.8 [b]	39.5 ± 2.6 [a]
42 day	39.7 ± 3.7 [a]	28.3 ± 2.9 [b]	39.7 ± 4.6 [a]	27.3 ± 2.8 [b]	39.7 ± 2.9 [a]	30.3 ± 1.4 [b]	39.8 ± 1.3 [a]

Values are mean ± S.D.(n = 10). Data were compared by ANOVA, Values superscripted by the same letter are not

significantly different, p>0

Table (3): Effect of diclazuril (1or 2 ppm), flavomycin (75g/ton) and their combinations on lymphocytes count (% of the total leucocytic count) in chicken.

Group / Age	Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	60.7 ± 3.0 [a]	48.3 ± 4.0 [b]	60.6 ± 3.6 [a]	47.6 ± 2.0 [b]	58.0 ± 4.2 [a]	47.3 ± 3.5 [b]	60.3 ± 4.0 [a]
28 day	61.1 ± 2.8 [a]	51.0 ± 3.0 [b]	62.3 ± 2.5 [a]	53.3 ± 2.4 [b]	62.6 ± 3.5 [a]	52.6 ± 3.2 [b]	61.3 ± 3.2 [a]
35 day	60.0 ± 4.0 [a]	51.6 ± 4.6 [b]	61.5 ± 5.0 [a]	51.3 ± 2.1 [b]	65.6 ± 3.6 [a]	53.9 ± 3.6 [b]	64.6 ± 2.8 [a]
42 day	62.4 ± 4.5 [a]	50.7 ± 4.4 [b]	63.9 ± 5.1 [a]	53.8 ± 3.7 [b]	64.8 ± 4.8 [a]	52.7 ± 4.1 [b]	64.3 ± 2.2 [a]

Values are mean ± S.D.(n =10). Data were compared by ANOVA, Values superscripted by the same letter are not significantly different, p>0.05.

Table (4): Effect of diclazuril (1 or 2 ppm), flavomycin (75g/ton) and their combinations on antibody titer (log transformed) in chicken.

Group / Age	Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	3.5 ± 0.1 [a]	2.3 ± 0.2 [b]	3.4 ± 0.1 [a]	2.4 ± 0.2 [b]	3.6 ± 0.1 [a]	2.2 ± 0.1 [b]	3.3 ± 0.5 [a]
28 day	2.7 ± 0.2 [a]	2.0 ± 0.5 [b]	3.0 ± 0.3 [a]	1.9 ± 0.2 [b]	3.1 ± 0.3 [a]	2.3 ± 0.2 [b]	3.4 ± 0.1 [a]
35 day	3.0 ± 0.5 [a]	2.1 ± 0.4 [b]	3.1 ± 0.2 [a]	2.2 ± 0.2 [b]	3.3 ± 0.3 [a]	2.1 ± 0.3 [b]	3.3 ± 0.2 [a]
42 day	3.7 ± 0.3 [a]	1.9 ± 0.4 [b]	3.0 ± 0.6 [a]	2.1 ± 0.4 [b]	3.1 ± 0.3 [a]	1.7 ± 0.3 [b]	3.1± 0.5 [a]

Values are mean ± S.D.(n = 5). Data were compared by ANOVA, Values superscripted by the same letter are not

significantly different, $p>0.05$

Table (5): Effect of diclazuril (1 or 2 ppm), flavomycin (75g/ton) and their combinations on the total serum protein (g/dl) in chicken.

Group / Age	Treatment					Control	
	Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	3.80 ± 0.34 [a]	2.57 ± 0.22 [b]	3.67 ± 0.20 [a]	2.56 ± 0.29 [b]	3.70 ± 0.18 [a]	2.58 ± 0.20 [b]	3.98 ± 0.24 [a]
28 day	3.54 ± 0.18 [a]	2.49 ± 0.21 [b]	3.52 ± 0.31 [a]	2.57 ± 0.12 [b]	3.49 ± 0.17 [a]	2.50 ± 0.21 [b]	3.62 ± 0.15 [a]
35 day	3.53 ± 0.21 [a]	2.60 ± 0.26 [b]	3.54 ± 0.19 [a]	2.50 ± 0.24 [b]	3.36 ± 0.16 [a]	2.43 ± 0.25 [b]	3.51 ± 0.10 [a]
42 day	3.71 ± 0.19 [a]	2.64 ± 0.11 [b]	3.84 ± 0.12 [a]	2.65 ± 0.15 [b]	3.79 ± 0.17 [a]	2.57 ± 0.11 [b]	3.78 ± 0.25 [a]

Values are mean ± S.D.(n = 5). Data were compared by ANOVA, Values superscripted by the same letter are not significantly different, p>0.05

Table (6): Effect of diclazuril(1 or 2 ppm),flavomycin(75g/ton)and their combinations on the serum α-globulins (g/dl) in chicken.

Age / Group		Treatment					Control	
		Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	α_1	0.73 ± 0.16 [a]	0.44 ± 0.04 [b]	0.64 ± 0.06 [a]	0.46 ± 0.03 [b]	0.66 ± 0.11 [a]	0.44 ± 0.06 [b]	0.76 ± 0.14 [a]
	α_2	0.50 ± 0.04 [a]	0.35 ± 0.06 [b]	0.51 ± 0.07 [a]	0.34 ± 0.04 [b]	0.49 ± 0.02 [a]	0.32 ± 0.07 [b]	0.53 ± 0.10 [a]
28 day	α_1	0.66 ± 0.04 [a]	0.43 ± 0.06 [b]	0.69 ± 0.02 [a]	0.46 ± 0.08 [b]	0.61 ± 0.08 [a]	0.44 ± 0.05 [b]	0.73 ± 0.13 [a]
	α_2	0.46 ± 0.05 [a]	0.34 ± 0.03 [b]	0.45 ± 0.01 [a]	0.33 ± 0.04 [b]	0.47 ± 0.06 [a]	0.29 ± 0.04 [b]	0.46 ± 0.03 [a]
35 day	α_1	0.70 ± 0.09 [a]	0.48 ± 0.03 [b]	0.66 ± 0.05 [a]	0.43 ± 0.02 [b]	0.66 ± 0.07 [a]	0.43 ± 0.05 [b]	0.65 ± 0.05 [a]
	α_2	0.48 ± 0.05 [a]	0.33 ± 0.01 [b]	0.43 ± 0.03 [a]	0.32 ± 0.02 [b]	0.41 ± 0.02 [a]	0.30 ± 0.04 [b]	0.47 ± 0.04 [a]
42 day	α_1	0.63 ± 0.08 [a]	0.41 ± 0.05 [b]	0.67 ± 0.05 [a]	0.46 ± 0.06 [b]	0.65 ± 0.06 [a]	0.42 ± 0.02 [b]	0.63 ± 0.03 [a]
	α_2	0.47 ± 0.07 [a]	0.32 ± 0.02 [b]	0.45 ± 0.02 [a]	0.29 ± 0.03 [b]	0.46 ± 0.05 [a]	0.28 ± 0.05 [b]	0.44 ± 0.02 [a]

Values are mean ± S.D (n = 5). Data were compared by ANOVA, Values superscripted by the same letter are not significantly different, p>0.05

Table(7): Effect of diclazuril(1 or 2 ppm),flavomycin(75g/ton)and their combinations on the serum β-globulins (g/dl) in chicken.

Group / Age		Treatment					Control	
		Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	β_1	0.37 ± 0.05 [a]	0.22 ± 0.02 [b]	0.39 ± 0.04 [a]	0.23 ± 0.02 [b]	0.36 ± 0.03 [a]	0.21 ± 0.03 [b]	0.39 ± 0.04 [a]
	β_2	0.32 ± 0.03 [a]	0.20 ± 0.04 [b]	0.36 ± 0.01 [a]	0.24 ± 0.02 [b]	0.33 ± 0.04 [a]	0.21 ± 0.04 [b]	0.35 ± 0.03 [a]
28 day	β_1	0.35 ± 0.04 [a]	0.23 ± 0.03 [b]	0.32 ± 0.03 [a]	0.24 ± 0.01 [b]	0.31 ± 0.02 [a]	0.24 ± 0.02 [b]	0.33 ± 0.04 [a]
	β_2	0.27 ± 0.02 [a]	0.18 ± 0.03 [b]	0.27 ± 0.06 [a]	0.17 ± 0.02 [b]	0.25 ± 0.01 [a]	0.16 ± 0.03 [b]	0.26 ± 0.04 [a]
35 day	β_1	0.36 ± 0.02 [a]	0.21 ± 0.03 [b]	0.33 ± 0.04 [a]	0.22 ± 0.09 [b]	0.34 ± 0.01 [a]	0.17 ± 0.04 [b]	0.31 ± 0.02 [a]
	β_2	0.25 ± 0.02 [a]	0.13 ± 0.04 [b]	0.24 ± 0.03 [a]	0.13 ± 0.01 [b]	0.27 ± 0.02 [a]	0.10 ± 0.2 [b]	0.23 ± 0.01 [a]
42 day	β_1	0.27 ± 0.05 [a]	0.15 ± 0.04 [b]	0.26 ± 0.04 [a]	0.16 ± 0.03 [b]	0.30 ± 0.07 [a]	0.13 ± 0.02 [b]	0.27 ± 0.04 [a]
	β_2	0.25 ± 0.03 [a]	0.12 ± 0.03 [b]	0.23 ± 0.05 [a]	0.12 ± 0.02 [b]	0.27 ± 0.05 [a]	0.14 ± 0.03 [b]	0.24 ± 0.01 [a]

Values are mean ± S.D.(n = 5). Data were compared by ANOVA, Values superscripted by the same letter are not significantly different, $p>0.05$.

Table (8): Effect of diclazuril(1or 2 ppm),flavomycin(75g/ton)and their combinations on the serum δ-globulins (g/dl) in chicken.

Group / Age		Treatment					Control	
		Diclazuril		Diclazuril + Flavomycin		Flavomycin	-ve	+ve
		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
21 day	δ_1	0.49 ± 0.01 [a]	0.25 ± 0.05 [b]	0.42 ± 0.14 [a]	0.21± 0.04 [b]	0.55 ± 0.18 [a]	0.22 ± 0.06 [b]	0.51 ± 0.09 [a]
	δ_2	0.23 ± 0.02 [a]	0.10 ± 0.01 [b]	0.22 ± 0.06 [a]	0.11 ± 0.02 [b]	0.19 ± 0.04 [a]	0.09 ± 0.04 [b]	0.20 ± 0.02 [a]
28 day	δ_1	0.47 ± 0.08 [a]	0.29 ± 0.04 [b]	0.49 ± 0.16 [a]	0.31 ± 0.03 [b]	0.44 ± 0.05 [a]	0.26 ± 0.03 [b]	0.44 ± 0.03 [a]
	δ_2	0.14 ± 0.02 [a]	0.05 ± 0.01 [b]	0.15 ± 0.03 [a]	0.07 ± 0.02 [b]	0.14 ± 0.03 [a]	0.04 ± 0.01 [b]	0.17 ± 0.02 [a]
35 day	δ_1	0.43 ± 0.07 [a]	0.29 ± 0.01 [b]	0.45 ± 0.07 [a]	0.27 ± 0.07 [b]	0.39 ± 0.03 [a]	0.26 ± 0.04 [b]	0.42 ± 0.04 [a]
	δ_2	0.17 ± 0.02 [a]	0.04 ± 0.05 [b]	0.18 ± 0.01 [a]	0.06 ± 0.03 [b]	0.15 ± 0.01 [a]	0.06 ± 0.01 [b]	0.16 ± 0.02 [a]
42 day	δ_1	0.65 ± 0.07 [a]	0.39 ± 0.07 [b]	0.74 ± 0.15 [a]	0.40 ± 0.09 [b]	0.64 ± 0.09 [a]	0.41 ± 0.07 [b]	0.75 ± 0.17 [a]
	δ_2	0.24 ± 0.03 [a]	0.10 ± 0.03 [b]	0.22 ± 0.06 [a]	0.11 ± 0.02 [b]	0.24 ± 0.06 [a]	0.11 ± 0.03 [b]	0.27 ± 0.05 [a]

Values are mean ± S.D.(n = 5). Data were compared by ANOVA, Values superscripted by the same letter are not significantly different, $p>0.05$