

**Table 3:** Effect of experimental treatments on the performance of NZW growing rabbits.

Items	Treatment groups						SEM	Significance
	C	TU	BM	BS	BM +TU	BM + BS		
Initial body weight (g)	533.20	532.20	532.30	531.00	531.50	533.70	28.6	NS
5-9 weeks								
Body weight (g)	1044.9 <sup>b</sup>	1051.5 <sup>b</sup>	1044.0 <sup>b</sup>	1126.2 <sup>a</sup>	1094.5 <sup>ab</sup>	1086.6 <sup>ab</sup>	16.08	**
Body weight gain (g)	511.7 <sup>b</sup>	519.3 <sup>b</sup>	511.7 <sup>b</sup>	595.2 <sup>a</sup>	563.0 <sup>ab</sup>	552.9 <sup>ab</sup>	21.15	*
Feed intake (g)	2031.9 <sup>a</sup>	2003.2 <sup>a</sup>	1743.1 <sup>b</sup>	2062.9 <sup>a</sup>	1787.0 <sup>b</sup>	1786.9 <sup>b</sup>	48.8	**
Feed conversion	3.97 <sup>a</sup>	3.86 <sup>ab</sup>	3.41 <sup>bc</sup>	3.47 <sup>bc</sup>	3.17 <sup>c</sup>	3.23 <sup>c</sup>	0.14	**
9 - 13 weeks								
Body weight (g)	1726.1 <sup>c</sup>	1765.5 <sup>bc</sup>	1766.1 <sup>bc</sup>	1843.3 <sup>ab</sup>	1878.3 <sup>a</sup>	1872.5 <sup>a</sup>	29.02	**
Body weight gain (g)	681.2 <sup>b</sup>	714.0 <sup>ab</sup>	722.1 <sup>ab</sup>	717.1 <sup>ab</sup>	783.8 <sup>a</sup>	785.9 <sup>a</sup>	24.8	*
Feed intake (g)	2504.4 <sup>ab</sup>	2328.5 <sup>c</sup>	2378.4 <sup>bc</sup>	2550.5 <sup>a</sup>	2293.1 <sup>c</sup>	2431.9 <sup>abc</sup>	51.6	**
Feed conversion	3.68 <sup>a</sup>	3.26 <sup>cd</sup>	3.29 <sup>bc</sup>	3.56 <sup>ab</sup>	2.93 <sup>d</sup>	3.09 <sup>cd</sup>	0.11	**
Over all period ( 5-13 weeks)								
Body weight (g)	1726.1 <sup>c</sup>	1765.5 <sup>bc</sup>	1766.1 <sup>bc</sup>	1843.3 <sup>ab</sup>	1878.3 <sup>a</sup>	1872.5 <sup>a</sup>	29.02	**
Body weight gain (g)	1192.9 <sup>b</sup>	1233.3 <sup>b</sup>	1233.8 <sup>b</sup>	1312.3 <sup>a</sup>	1346.8 <sup>a</sup>	1338.8 <sup>a</sup>	27.2	**
Feed intake (g)	4536.3 <sup>a</sup>	4331.7 <sup>b</sup>	4121.5 <sup>bc</sup>	4613.4 <sup>a</sup>	4080.1 <sup>c</sup>	4218.8 <sup>bc</sup>	77.6	**
Feed conversion	3.80 <sup>a</sup>	3.51 <sup>b</sup>	3.34 <sup>bc</sup>	3.52 <sup>b</sup>	3.03 <sup>d</sup>	3.15 <sup>cd</sup>	0.07	**

<sup>a-d</sup> = Means in the same raw with different superscripts, differ significantly.

NS: Non-significant \*: P≤ 0.05. \*\*: P≤ 0.01. SEM: Standard errors of means.

C= Control TU= Turmeric BM= Biomos BS= Biostrong

**Table 4:** Effect of experimental treatments on some carcass traits of NZW growing rabbits.

Items	Treatment groups						SEM	Significance
	C	TU	BM	BS	BM + TU	BM + BS		
Dressing (%)	48.11 <sup>c</sup>	50.93 <sup>b</sup>	51.25 <sup>b</sup>	51.43 <sup>b</sup>	53.48 <sup>a</sup>	52.21 <sup>ab</sup>	0.57	**
Liver(%)	5.10	3.97	4.04	4.94	3.43	4.68	0.37	NS
Heart(%)	0.34	0.31	0.35	0.41	0.32	0.41	0.04	NS
Kidney(%)	0.70	0.68	0.68	0.60	0.79	0.62	0.67	NS
Edible gilet (%)	6.14	4.96	5.08	5.95	4.54	5.71	0.32	NS
Total edible parts (%)	54.25 <sup>b</sup>	55.89 <sup>ab</sup>	56.33 <sup>ab</sup>	57.38 <sup>a</sup>	58.02 <sup>a</sup>	57.92 <sup>a</sup>	0.70	*
Cecum weight (g)	100.93	105.57	113.37	118.10	111.90	110.00	12.28	NS
Intestine weight (g)	71.87	73.53	74.77	74.63	73.63	76.13	4.93	NS

<sup>a-c</sup> = Means in the same raw with different superscripts, differ significantly.

NS: Non-significant \*: P≤ 0.05. \*\*: P≤ 0.01. SEM: Standard errors of means, C= Control TU= Turmeric BM= Biomos BS= Biostrong

**Table 5:** Effect of experimental treatments on pH and cecal microbial count of growing NZW rabbits

Items	Treatment groups						SEM	Significance
	C	TU	BM	BS	BM + TU	BM + BS		
pH	6.10 <sup>b</sup>	6.07 <sup>b</sup>	6.43 <sup>ab</sup>	6.67 <sup>a</sup>	6.69 <sup>a</sup>	6.60 <sup>ab</sup>	0.16	*
<i>Clostridia spp.</i> ( $\times 10^5$ )	6.11 <sup>a</sup>	4.54 <sup>b</sup>	4.13 <sup>d</sup>	4.32 <sup>c</sup>	4.35 <sup>c</sup>	3.78 <sup>e</sup>	0.02	**
<i>E. coil</i> ( $\times 10^5$ )	1.65 <sup>a</sup>	1.28 <sup>b</sup>	1.10 <sup>cd</sup>	1.19 <sup>bc</sup>	0.94 <sup>e</sup>	1.02 <sup>de</sup>	0.03	**
<i>Lactobacilli bacteria</i> ( $\times 10^5$ )	5.13 <sup>f</sup>	9.85 <sup>e</sup>	10.10 <sup>d</sup>	10.44 <sup>c</sup>	11.28 <sup>a</sup>	10.76 <sup>b</sup>	0.03	**
<i>Ureatic bacteria</i> ( $\times 10^5$ )	2.85 <sup>a</sup>	1.34 <sup>b</sup>	1.28 <sup>c</sup>	1.20 <sup>d</sup>	1.18 <sup>d</sup>	1.21 <sup>d</sup>	0.02	**
NH3 (mmol/l/l)	4.74 <sup>a</sup>	3.74 <sup>b</sup>	3.59 <sup>c</sup>	3.52 <sup>d</sup>	3.49 <sup>de</sup>	3.45 <sup>e</sup>	0.02	**

<sup>a-c</sup> = Means in the same raw with different superscripts, differ significantly (P≤ 0.05).

\*: P≤ 0.05. \*\*: P≤ 0.01. SEM: Standard errors of means., C= Control TU= Turmeric BM= Biomos BS= Biostrong

**Table 6:** Some blood hematological values of growing NZW rabbits as affected by experimental treatments

Items	Treatment groups						SEM	Significance
	C	TU	BM	BS	BM + TU	BM + BS		
WBCs ( $10^3/\text{mm}^3$ )	7.10 <sup>d</sup>	8.16 <sup>bcd</sup>	7.20 <sup>cd</sup>	8.23 <sup>bc</sup>	9.36 <sup>a</sup>	8.73 <sup>ab</sup>	0.33	**
Lymphocytes (%)	52.20 <sup>c</sup>	55.73 <sup>abc</sup>	54.80 <sup>bc</sup>	59.57 <sup>a</sup>	58.73 <sup>ab</sup>	51.90 <sup>c</sup>	1.38	**
Monocyte (%)	5.87 <sup>bc</sup>	7.73 <sup>a</sup>	6.93 <sup>ab</sup>	5.03 <sup>c</sup>	4.93 <sup>c</sup>	5.77 <sup>bc</sup>	0.50	**
Neutrophils (%)	35.50 <sup>a</sup>	28.53 <sup>b</sup>	29.60 <sup>b</sup>	29.07 <sup>b</sup>	28.33 <sup>b</sup>	29.67 <sup>b</sup>	1.80	NS
RBCs ( $10^6/\text{mm}^3$ )	4.43 <sup>d</sup>	5.73 <sup>b</sup>	5.13 <sup>c</sup>	5.50 <sup>bc</sup>	6.40 <sup>a</sup>	5.83 <sup>b</sup>	0.16	**
Hemoglobin (g/dl)	9.46 <sup>b</sup>	11.10 <sup>ab</sup>	10.10 <sup>b</sup>	10.93 <sup>ab</sup>	12.03 <sup>a</sup>	11.96 <sup>a</sup>	0.55	*
Haematocrit (%)	31.73 <sup>b</sup>	32.50 <sup>b</sup>	32.16 <sup>b</sup>	33.85 <sup>b</sup>	37.56 <sup>a</sup>	37.37 <sup>a</sup>	0.86	**
MCV <sup>(1)</sup> (fl)	62.93	61.60	62.30	61.63	65.43	63.80	1.05	NS
MCH <sup>(2)</sup> (pg)	20.03	19.90	19.56	19.90	20.93	20.46	0.46	NS
MCHC <sup>(3)</sup> (g/l)	32.00	32.00	31.33	32.33	32.33	32.00	0.47	NS

<sup>a-c</sup> = Means in the same raw with different superscripts, differ significantly ( $P \leq 0.05$ ).

NS: Non-significant \*:  $P \leq 0.05$ . \*\*:  $P \leq 0.01$ . SEM: Standard errors of means, C= Control TU= Turmeric BM= Biomos BS= Biostrong

(1) Mean corpuscular volume, (2) Mean corpuscular hemoglobin (3) Mean corpuscular hemoglobin concentration

**Table 7:** Blood serum constituents of growing NZW rabbits as affected by experimental treatments.

Items	Treatment groups						SEM	Significance
	C	TU	BM	BS	BM + TU	BM + BS		
<b>Total Protein (g/dl)</b>	<b>6.87<sup>ab</sup></b>	<b>6.85<sup>ab</sup></b>	<b>6.17<sup>b</sup></b>	<b>6.33<sup>b</sup></b>	<b>7.57<sup>a</sup></b>	<b>7.32<sup>a</sup></b>	<b>0.28</b>	*
<b>Albumine (g/dl)</b>	<b>3.75</b>	<b>3.61</b>	<b>3.13</b>	<b>3.32</b>	<b>3.86</b>	<b>3.78</b>	<b>0.22</b>	NS
<b>Glubuline (g/dl)</b>	<b>3.12</b>	<b>3.24</b>	<b>3.04</b>	<b>3.01</b>	<b>3.71</b>	<b>3.54</b>	<b>0.30</b>	NS
<b>A/G ratio</b>	<b>1.21</b>	<b>1.11</b>	<b>1.03</b>	<b>1.10</b>	<b>1.04</b>	<b>1.07</b>	<b>0.13</b>	NS
<b>Glucose (mg/dl)</b>	<b>84.86<sup>c</sup></b>	<b>93.22<sup>b</sup></b>	<b>99.54<sup>a</sup></b>	<b>102.24<sup>a</sup></b>	<b>93.40<sup>b</sup></b>	<b>81.80<sup>c</sup></b>	<b>1.87</b>	**
<b>Cholesterol(mg/dl)</b>	<b>317.83<sup>a</sup></b>	<b>216.06<sup>b</sup></b>	<b>222.51<sup>b</sup></b>	<b>211.97<sup>b</sup></b>	<b>141.78<sup>c</sup></b>	<b>156.36<sup>c</sup></b>	<b>9.04</b>	**
<b>AST (U/ml)</b>	<b>30.39</b>	<b>30.45</b>	<b>30.23</b>	<b>31.42</b>	<b>29.85</b>	<b>28.53</b>	<b>1.50</b>	NS
<b>ALT(U/ml)</b>	<b>45.33</b>	<b>43.89</b>	<b>43.50</b>	<b>39.66</b>	<b>39.98</b>	<b>46.75</b>	<b>1.70</b>	NS
<b>Urea (mg/dl)</b>	<b>47.50<sup>a</sup></b>	<b>34.19<sup>b</sup></b>	<b>37.17<sup>b</sup></b>	<b>36.75<sup>b</sup></b>	<b>32.07<sup>b</sup></b>	<b>30.30<sup>b</sup></b>	<b>2.27</b>	**
<b>Uric acid (mg/dl)</b>	<b>5.62<sup>a</sup></b>	<b>4.48<sup>b</sup></b>	<b>5.18<sup>ab</sup></b>	<b>3.21<sup>c</sup></b>	<b>3.47<sup>c</sup></b>	<b>4.69<sup>ab</sup></b>	<b>0.31</b>	**
<b>Creatinine (mg/dl)</b>	<b>1.37<sup>a</sup></b>	<b>1.05<sup>bc</sup></b>	<b>1.23<sup>ab</sup></b>	<b>1.21<sup>ab</sup></b>	<b>0.90<sup>c</sup></b>	<b>1.18<sup>ab</sup></b>	<b>0.06</b>	**

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NS: Non-significant \*: P≤ 0.05. \*\*: P≤ 0.01. SEM: Standard errors of means.

C= Control TU= Turmeric BM= Biomos BS= Biostrong

**Table 8:** Effect of experimental treatments on some chemical analysis in meat of growing NZW rabbits

Items	Treatment groups						SEM	Significance
	C	TU	BM	BS	BM + TU	BM + BS		
<b>Total Protein (g/dl)</b>	<b>0.75<sup>b</sup></b>	<b>1.18<sup>a</sup></b>	<b>1.06<sup>ab</sup></b>	<b>1.64<sup>a</sup></b>	<b>1.65<sup>a</sup></b>	<b>1.57<sup>a</sup></b>	<b>0.20</b>	*
<b>Total Lipid (g/dl)</b>	<b>192.26<sup>a</sup></b>	<b>129.81<sup>ab</sup></b>	<b>94.56<sup>b</sup></b>	<b>134.6<sup>ab</sup></b>	<b>136.86<sup>ab</sup></b>	<b>80.13<sup>b</sup></b>	<b>21.92</b>	*
<b>Cholesterol(mg/dl)</b>	<b>126.48<sup>a</sup></b>	<b>89.56<sup>bc</sup></b>	<b>114.84<sup>ab</sup></b>	<b>113.08<sup>ab</sup></b>	<b>91.87<sup>bc</sup></b>	<b>76.32<sup>c</sup></b>	<b>1.56</b>	**
<b>Triglyceride (mg/dl)</b>	<b>46.02<sup>a</sup></b>	<b>45.29<sup>a</sup></b>	<b>19.78<sup>d</sup></b>	<b>30.40<sup>b</sup></b>	<b>27.58<sup>bc</sup></b>	<b>23.01<sup>cd</sup></b>	<b>1.56</b>	**

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\*: P≤ 0.05. \*\*: P≤ 0.01. SEM: Standard errors of means., C= Control TU= Turmeric BM= Biomos BS= Biostrong

