

[10.1071/AN22288](https://doi.org/10.1071/AN22288)

*Animal Production Science*

### Supplementary Material

#### **Beneficial effects of instrumental music on the production performance of Xiandao green-shell layers housed under different stocking densities**

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Supplemental Table S1. Effects of different sound sources and stocking densities on the average egg weight (g) over different phases (n = 6).

		<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	<b>Phase 4</b>	<b>Phase (1-4)</b>
<b>Group</b>	NL	48.31	48.64	49.29	49.40	48.91
	NM	48.06	48.76	48.79	49.30	48.73
	NH	48.43	48.35	48.31	49.95	48.76
	IL	48.26	48.56	48.95	49.66	48.86
	IM	48.29	49.47	49.49	49.77	49.25
	IH	48.22	48.92	49.23	49.84	49.05
	RL	49.74	49.89	49.63	50.34	49.90
	RM	48.04	48.00	48.40	49.72	48.54
	RH	48.57	48.47	48.84	49.62	48.88
	s.e.m.	0.17	0.18	0.19	0.18	0.33
<b>Main effect means</b>						
Sound (S)	N	48.27	48.58	48.80	49.55	48.80
	I	48.25	48.99	49.22	49.75	49.05
	R	48.56	48.58	48.95	49.89	49.11
Density (D)	L	48.54	48.83	49.29	49.80	49.22
	M	48.13	48.74	48.89	49.60	48.84
	H	48.41	48.58	48.80	49.80	48.90
<b>P-values</b>						
Sound (S)		0.701	0.550	0.662	0.770	0.722
Density (D)		0.587	0.844	0.542	0.887	0.602
S×D		0.854	0.340	0.563	0.842	0.497

Groups were named according to the sound that hens were exposed to and the stocking density at which they were kept.

N, natural sound; I, instrumental music sound; R, mixed road sound; L, low stocking density; M, medium stocking density; H, high stocking density.

Supplemental Table S2. Effects of sound sources and stocking densities on organ indexes (%) (n = 6).

		<b>Spleen</b>	<b>Stomach</b>	<b>Liver</b>	<b>Heart</b>
<b>Group</b>	NL	0.152 <sup>ab</sup>	0.126	0.253	0.474
	NM	0.138 <sup>abc</sup>	0.120	0.232	0.448
	NH	0.151 <sup>ab</sup>	0.144	0.251	0.469
	IL	0.171 <sup>a</sup>	0.129	0.231	0.501
	IM	0.121 <sup>bc</sup>	0.145	0.239	0.487
	IH	0.123 <sup>bc</sup>	0.136	0.255	0.481
	RL	0.102 <sup>c</sup>	0.135	0.255	0.490
	RM	0.119 <sup>bc</sup>	0.124	0.250	0.433
	RH	0.145 <sup>ab</sup>	0.142	0.276	0.462
	s.e.m.		0.007	0.039	0.075
<b>Main effect means</b>					
Sound (S)	N	0.147	0.130	0.246	0.464
	I	0.138	0.136	0.242	0.490
	R	0.122	0.134	0.264	0.462
Density (D)	L	0.142	0.130	0.247	0.488
	M	0.126	0.130	0.241	0.456
	H	0.140	0.140	0.261	0.471
<b>P-values</b>					
Sound (S)		0.068	0.501	0.187	0.429
Density (D)		0.274	0.096	0.161	0.405
S×D		0.017	0.099	0.782	0.940

Groups were named according to the sound that hens were exposed to and the stocking density at which they were kept.

N, natural sound; I, instrumental music sound; R, mixed road sound; L, low stocking density; M, medium stocking density; H, high stocking density.

When there were significant interactions between sound and density, different lowercase letters within the same column indicate significant simple effects at a *P* level of 0.05.